

to give evidence. I have been asked to speak on the question of the relation of the University to scientific research work. I would like to say that I am not acting as a delegate. The professors are on vacation, and no doubt if they had been here they would have appointed a delegate to give evidence. I know that several University professors are willing to do research work, but they are hampered in their efforts for want of time. We have a great deal of elementary teaching to do which absorbs nearly all our time and does not leave spare time for research work. Some of our laboratories are not sufficiently large to devote to research work. At present a fair amount of research work is done, but more could be done if further accommodation were provided. There is also the question of apparatus. Some of the University colleges are unable to supply some of the very expensive apparatus that might be needed for research work. I believe that the New Zealand Institute would be of value in this respect next year, because it has been promised a sum of £2,000 to provide apparatus and to encourage generally. That might be enough in the meantime. There is one thing I would like to bring before the Committee, and that is I think the research work can be viewed from two standpoints. There is the point of view of pure science, which attracts the professor always because it is of very much value in his own teaching. There is another kind of research work which is purely routine. One takes up, say, the analysis of food and foodstuffs: that has no direct attraction or value to the professor. I can speak from my own experience. It is of no value to his students to have repeated the processes which he knows perfectly well. But it is of value that he should do pure science, and it is necessary to have a man trained in pure science. I do not think any good research work can be done unless you have the expert in pure science available as well as the man who will undertake the commoner drudgery of the work. In regard to scholarships for research work, it has frequently been pointed out that these scholarships are not of sufficient value to attract students. I am referring to the Government Research Scholarships.

*Mr. Sidey:* Will you suggest in what way you think alterations should be made?

*Professor Malcolm:* I think there should be an increase in the amounts given. We have a half-time assistant. If we had a whole-time assistant it would be very much easier to do more of that work.

*Mr. Sidey:* How much a year do you think would be sufficient for that purpose?—In my case I think perhaps it would be a little more than in others, because I would need a qualified medical man. Young graduates are not coming into this work unless there is something substantial. I made the suggestion a little time ago that there should be a full-time assistant. I think probably £500 a year might be sufficient: that would be a minimum for a graduate.

It is suggested that there should be a Board of Science and Industries, which should be provided with a Government grant of £20,000 a year. They no doubt will make use of your laboratories and professors for research work. Do you think that proposal should take precedence—that it is important? At the present time you ask the Government to do both?—I think there ought to be some central organization to prevent overlapping.

*To Mr. Luke:* I think that where a professor wishes to do research work he ought to have some encouragement and have sufficient funds. When money is available assistance could be provided to relieve a professor of a certain amount of the drudgery and set him free to do the research and higher work he wishes to do.

*To Mr. Craigie:* I do not suggest that the research should be done in one place. Research work is of enormous value in teaching, and could be done in the University colleges and at the Cawthron Institute at Nelson. Take my own case: I am interested in diet, as a physiologist, and therefore in frozen foods. I have done analyses in fish, but I do not care to continue it, because it is too much of the drudgery kind of work; but I could direct a young man to carry on and complete the analysis of fish. As a matter of fact, I intend to apply to the Institute for sufficient money to enable me to get a man to do that. In addition, if I had an assistant doing some of my ordinary work, I could get on further with the work that I am doing. All that requires more money and more help, and I think the advantage to the Dominion would be very great. I do not much care what method is adopted as long as the end is attained. It is no doubt of very great importance to New Zealand.

J. H. HINTON, Managing Director, Hintons Limited, examined.

I desire to speak in reference to the importation of pineapple-pulp from Queensland. As you are aware, New Zealand is not a producer of pineapples. I do not think the growing of pineapples has even been experimented upon in New Zealand. The tariff admits pineapples as fresh fruit free of duty. There is such a demand for pineapples that they are out of reach of manufacturers, owing to the demand of the fruit for dessert purposes. We are offered from Queensland large quantities of pineapple-pulp. Pineapples that are too ripe for exporting as they come from the gardens in Queensland are treated—peeled and preserved. They are not treated with any deleterious substance, but they are simply peeled and put in 40 lb. tins. These pineapples are practically net weight. They are practically ready for use in the shape of preserving; but we found on trying to import some of these pineapples for our preserving-works that we were saddled with the duty under fruit-pulp—a duty of 1½d. per pound. That makes them too expensive for use in our works and to be able to sell the jam at a price within the reach of ordinary folks. It seems to us that pineapple-pulp should come into New Zealand free, in the same way as fresh fruit. Pineapples have a valuable medicinal value, second only in the fruit world to that of lemons. It is recognized that pineapples are valuable as a dietetic food. Strawberry-pulp is another line which is handicapped by a 1½d. per pound duty. The growing of strawberries in New Zealand has never reached a stage at which strawberries can be regarded as a commercial jam fruit. Since the war started we have not been able to put out