

history of our scientific achievements is written the names of Doctor Boyle and General McNaughton will be known all over the world.

Mr. MARTIN: And Doctor Tory.

Mr. ROSS (St. Paul's): That is right, and Doctor Tory and many others. But I mentioned those two because I know very well what they have done. Dean Mackenzie is also doing a marvellous job right at the present time, as well as many other able men at the research council. Another thing I would point out is that they are not paid enough. It is a shame that they are not paid more. They are working there for the love of science and love of their country. If they left they could get far more money outside.

Another question I would ask the minister is what we are doing in connection with chemurgy? The United States before the war was spending on the chemical industry in the United States between two and three per cent of its sales value and spending one-seventh of one per cent on chemurgy while we spent practically nothing. We would like information on all these things. Just how far-reaching is the work of the national research council? Is their work confined to what is done at the national research council here, or does their work extend to other places outside? We know what has been done in the medical field by Doctor Collip. We ought to know more about what is going on at the national research council.

Mr. NOSEWORTHY: The minister made the statement a moment ago that the people of Canada were unwilling to spend money on research as other countries did.

Mr. MacKINNON (Edmonton West): I did not say unwilling, but that they had not been educated sufficiently along that line to realize the value of research.

Mr. NOSEWORTHY: I wonder if the minister is correct and if he did not think the government of Canada is unwilling rather than the people.

Mr. MacKINNON (Edmonton West): Oh, no.

Mr. NOSEWORTHY: Just on what premises does the minister base his assumption that the people of Canada are not willing to see more money spent on research?

Mr. ROSS (St. Paul's): I would like to follow that up? The minister thinks it is the people of Canada who do not appreciate research. I have always thought it was the government that did not do enough. We would have been far better off to-day if in

[Mr. Douglas G. Ross.]

years gone by the government had given more leadership in research and shown what could be accomplished by it. The government should have taken a leaf out of the books of other countries which have accomplished wonders in research. There was a great lack of research for the benefit of Canadian industry which was due to the lack of initiative by the government. I do not blame the council at all for that because they did the very best they could. They had to fight all the time to get what money they wanted to carry on with their work, and with what they did get they did a marvellous job. But the government did not give them the leadership that they should have given.

Mr. MacKINNON (Edmonton West): I should now like to put on *Hansard* the statement to which I referred. It is as follows:

Work of the National Research Council

Prior to the outbreak of war the national research council was conducting scientific research and investigation in its own laboratories. It was also fostering research throughout Canada by means of its associate committees, by grants in aid of research, and by providing scholarships to aid in the training of young scientists. Each associate committee superintended a limited field of investigation and its membership consisted of technical and administrative men from universities, departments of government and industry, whose experience and skill were pooled in directing the research. Through these committees the council was in touch with laboratory personnel and facilities throughout Canada, and it acquired fairly detailed knowledge of their potentialities.

The value of this knowledge and of the council's widespread contacts became apparent as soon as war broke out. Problems which required the work of scientists were brought to the attention of the council and were either undertaken in the council's laboratories or placed with the individual or laboratory best equipped for the work. Some of the associate committees were already working in fields which merely had to be broadened in order to meet the new needs. For example, the committee on medical research, which had originally been organized to coordinate medical research for civilian needs in Canada, became the nucleus for the study of medical problems presented by the new and changed conditions of warfare on land and sea, and in the air. Similarly the Canadian committee on food preservation turned its attention from strictly peace-time food technology to studies of the means of maintaining the quality of the foodstuffs delivered to our armed forces and to the people of Great Britain. Both committees have produced sound work which will continue to be of value after hostilities cease.

Supervisors of research under certain committees whose work was of a peace-time importance only were directed to use their grants in the pursuit of specific war problems which their special training enables them to undertake. In addition, individual scientists who had been receiving grants in aid of research directly from the council also undertook war research