

—A. I think it is a question of the function of the council. The way we are operating at present is that we are using the council as the scientific body to review the work and keep an eye on it. In addition, the council has the very important job of the executive responsibility for the university support program. The cooperation with industry in our experience tends to be a rather individual matter. The electrical industry is nothing like the chemical industry; the chemical industry is nothing like the grain industry; and so forth. Consequently, we have felt that the cooperation with industry must be largely at the divisional level. Our divisions are organized roughly on subjects. There is an applied chemistry division which is concerned mainly with the chemical industry. It is the duty of the director of the division to make sure there is the maximum possible cooperation with the industry. This is done via reviews of that division by people from the chemical industry who are essentially therefore sitting as an advisory committee. We have advisory committees as such in several divisions. Then we also have the associate committees. It is our feeling that we get a great deal more by having our council make sure that the scientific level of the work is what it should be and limiting the council essentially to scientists and then the cooperation has to be at the working level. In other words, it is a full time responsibility of mine to cooperate with industry; it is the full time responsibility of the director of every division. From this point of view our cooperation with industry is extremely good. We very rarely refuse to do anything reasonable that we are asked to do. We are in very close contact with industry. Practically all our people are members of a variety of professional societies and the net result is that we have extremely close contacts with all the industries on the problems which industry has to face.

Q. You may incorporate the next question in your answer and that will be my final question. What can be done, in your estimation, to stimulate more industrial research in this country?—A. The trend is right, in that more is being done. We must recognize the difficulties, the markets and things of that sort. To my mind, it is a question of missionary work more than anything else. Over the last 15 years there has been a tremendous change in the attitude of industry to research in all countries in the world. It is a very rapidly expanding thing. We simply must do our best to stimulate industrial research wherever possible. All of us in senior positions in the research council have been doing a great deal of this in the way of speeches and otherwise. We have been with various groups as consultants. I myself on various occasions have been asked by a group of industrialists in a given field to go and talk to them and really "let my hair down" on the subject of what I thought of the lack of research in Canada. I think we are becoming much more research conscious in industry. From my point of view, this is all we can do. I do not think industrial research would be any use unless the industry itself is thoroughly sold on the necessity of it. I think we are getting to that point. I feel that the trend is good. One must make sure it is maintained. I think also one should emphasize that you cannot build up a research organization quickly. There has been a lot of criticism of various bodies in various countries in their attitude towards research. I mean that you cannot buy research as a commodity, but you must develop it. You cannot decide that if we spend \$100 million we will get that much research, without reference to where the people are or where the laboratories are. We are stimulating this very much at the moment and the whole trend is a good one and I do not feel discouraged about it.

*By Mr. Weaver:*

Q. In all your discussions with Mr. Murphy you mentioned industry and I had the feeling you were speaking of secondary industry. I mentioned mining industry the other day, coming up through the Department of Mines