

and Technical Surveys. I wanted to be sure when you are speaking of industry, whether you are referring to the primary industry of the country or more to secondary industry; is that correct?—A. Yes. The function of the National Research Council is in secondary industry. I think also that in primary industry we are leading rather than falling behind.

Q. That is the point.—A. In agriculture, for example, Canadian research has a very high reputation. There is a famous statement that was made by a British Minister of Agriculture some 30 or 40 years ago when he said, when someone asked about agriculture research, that he saw no necessity of doing agricultural research in Britain because they had full access to the results in Canada. Britain has changed its mind a little since then. I think that our position in primary industry is very good; work got going a long time ago and it has developed and is on quite a fair scale.

There is rather different position in that in agriculture one expects that most of this research will be by government and not industry. The farm is too small an industry to do research. It has to be done by pools of some sort and is usually regarded as a government function.

Again, in mining, it is usually felt that in order to exploit mineral discoveries it is necessary for the government to be there to give advice as to how to extract ores. So you do not have the same general position of research in industry when you are dealing with the primary industries; but I think the primary industries are away ahead of the secondary industries. I think that is rather reasonable in a country like Canada which is making a transition. I have the highest regard for the work done in mining and in agriculture.

*By Mr. Stewart (Winnipeg North):*

Q. Has any aid been sought from the N.R.C. by the airlines of this country? As their travel becomes more and more popular the space above airports becomes more and more cluttered with aircraft waiting to land. The result lies in the field of electronics, and I am wondering if anything is being done by the aircraft companies by which we might devise means where aircraft might land safely in what is, of course, the jet age?—A. I think that the answer is yes. In general most developments these days, because of financing and so forth, will tend to come through the air force—rather than through civilian airlines, although we have given considerable advice at one time or another to the Department of Transport and to the airlines on various things connected with navigation and so forth.

*By Mr. Hosking:*

Q. I would like to ask a supplementary question dealing with the principle of the question asked by Mr. Murphy. I see advertised a plug to go in the bottom of an oil pan, and in the advertising they state that N.R.C. has done something toward the development of this. Can you tell us how that came about?—A. It came about because of the work on the chemistry of lubricating oils being done in the division of applied chemistry. They did work on the deterioration of oils caused by heating.

Q. Who has the patents on it?—A. They are held by Canadian Patents and Development Limited which is a crown company owned by N.R.C.

Q. Is it extensively used?—A. It has only been on the market for a month or two I understand.

Q. Do the manufacturers put it in their cars when they are selling them new now?—A. No.

Q. Why do they not do that?—A. It remains to be seen whether or not they will do it.