

other coastline in the world I suppose, every man follows the water and is very interested in that equipment. So far the price does not seem to be down to a point where the ordinary fisherman can afford radar. Do you know whether or not they are still making a study of that?—A. They are still making a study of radar relating to navigation. I think that this is technical enough that I would prefer if it could be deferred so that the head of that division could be here to answer it. He would give us the answer with authority.

*By Mr. Green:*

Q. Mr. Chairman, near the end of the last meeting I asked Dr. Steacie a question as to his views with regard to the stories we hear that Canada is going to be very short of scientists and engineers. At that time you asked that the answer be deferred until another meeting. Could we have that answer today? A. I think we could give statistics of various sorts at a later meeting, if you like. Offhand I could answer it this way, Mr. Green, that there is at the present time a shortage of engineers. This is not a very great shortage, but the indications are that it will become a great shortage in the future if the supply does not increase. At the present time the number of engineers in Canada is increasing steadily, because the rate of production now is so much greater than it was, say 40 years ago. The loss by death is negligible, compared to the influx by graduation. It appears that the next 10 or 15 years will probably require a doubling of the rate of production of engineers. At the same time, the predictions of the national conference of Canadian universities, and of the Bureau of Statistics are that about twice as many under-graduates will be enrolling in the next few years. If the same percentage of students go into engineering, with that doubled enrolment this will just about meet the situation. I think, therefore, the essential thing is to see that we provide facilities to the universities to enable them to expand to meet the in-rush of students to be anticipated from 1959 or 1960, on. I do not think we need worry too much about persuading more students to go into engineering. The percentage going into engineering has been rising continuously.

One big question, and it is one that I am not qualified to talk about, is the question as to whether there has been a deterioration in science teaching in schools due to the lack of science specialists. This is something that is outside my sphere altogether, but I think it also needs to be considered at the same time. My own impression of the whole thing is that this is something that is serious, but it will be under control, provided we make sure that the development of universities to meet this crisis is sufficient to take care of it.

Q. The question has arisen, so far as I have been able to ascertain, as a result of the suggestion that Russia is deliberately training a very large number of engineers, and that other nations are not keeping up that same development.—A. There is a certain implication, of course, in this argument—and I think it is a very bad argument for a good cause. The implication is that anybody who is trained as anything other than an engineer is useless, because they compare only the engineering graduates in Russia with this country. Therefore the argument tacitly contains the assumption that lawyers and others are useless people.

Mr. HOSKING: That is right.

The WITNESS: I think what you should compare is the total output of university students in Canada with those of Russia.

*By Mr. Green:*

Q. How do you know the total, if it is compared percentagewise?—A. In a comparison such as I have suggested, the output is much larger in the United States and Canada than it is in Russia. I think that it must be true in Russia