

Research Council

Such ravaging diseases as yellow fever, dysentery, typhus, tetanus, pneumonia, and meningitis have been all but conquered by penicillin and the sulfa drugs, the insecticide DDT, better vaccines, and improved hygienic measures. Malaria has been controlled. There has been dramatic progress in surgery.

The striking advances in medicine during the war were possible only because we had a large backlog of scientific data accumulated through basic research in many scientific fields in the years before the war.

In the last 40 years life expectancy in the United States has increased from 49 to 65 years largely as a consequence of the reduction in the death rates of infants and children; in the last 20 years the death rate from the diseases of childhood has been reduced 87 per cent.

He mentions some of the diseases which affect us in middle life and which so far have not been conquered. He refers in particular to cardio-vascular diseases, including chronic disease of the kidneys, arteriosclerosis, cerebral hemorrhage and other diseases which now account for such large loss of life. He says that if we are prepared to carry on scientific work in peace time as we did in war time we can expect great discoveries in these fields. In the chapter on the deficit of scientists, he says:

As a result an accumulating deficit of trained research personnel will continue for many years. The deficit of science and technology students who, but for the war, would have received bachelor's degrees is about 150,000. The deficit of those holding advanced degrees—that is, young scholars trained to the point where they are capable of carrying on original work—has been estimated as amounting to about 17,000 by 1955 in chemistry, engineering, geology, mathematics, physics, psychology, and the biological sciences.

While a similar study has not been undertaken in Canada I am sure the situation is identical here.

In the annual report of the national research council for 1944-45 there is a summary of the scholarships which have been granted since 1917-18. A total of 168 fellowships have been granted; 483 studentships, and bursaries totalling 542. The amount actually expended by the council was \$827,788.81. When one considers the contribution made by many of the men and women who have been working as a result of these scholarships, one must agree that this is a very small amount to expend. The research council should have available much larger sums so that continuous work may be carried on in a great many other fields.

I was interested in the remarks of the hon. member for Vancouver South (Mr. Green), who seems to be much concerned about certain sections of the new bill. I think he was hardly fair in suggesting that the research council will be able to establish crown corporations without reference to the minister.

[Mr. Nicholson.]

Mr. GREEN: I said, subject to the governor in council.

Mr. NICHOLSON: I did not hear the hon. member mention governor in council. It says, "the council may with the approval of the governor in council." I think that should appear on the record. That means that the research council cannot proceed to set up a new company or take over a company without some reference to the elected representatives of the people.

Mr. FRASER: Just to the governor in council.

Mr. NICHOLSON: We have some say as to what will be done. From time to time we shall have a chance to express an opinion as to whether the action which has been taken has been in the public interest or not. I cannot see any good reason why the national research council should not set up crown corporations to engage in the manufacture of certain products that are for the use of the people.

May I remind the house that when insulin was discovered the late Sir Frederick Banting was offered, so I am informed, over a million dollars to make his discovery available to private industry. But being a great scientist and humanitarian he was not tempted by the offer. Fortunately for those who suffer from diabetes, insulin has been made available to patients without some private corporation having a tremendous rake-off.

One of the recent contributions of the national research council was the discovery of glycol, which I understand has performed very well as an anti-freeze in automobiles. This discovery, I understand, has been turned over to the Saskatchewan wheat pool, which will use it in the public interest. I think the national research council would have been within its rights if it had decided that this anti-freeze, developed at no little public expense, should be produced to serve the Canadian people at the lowest cost and that any profit made should go into the general revenues of the country rather than into the pockets of Imperial Oil or of some cartels that my hon. friends were worried about. This would not be something new. In Saskatchewan some years ago when the farmers were suffering heavy losses from encephalomyelitis in horses, the university of Saskatchewan manufactured and sold chick vaccine, which had proved a successful remedy in combatting this disease. Otherwise the farmers would have been obliged to pay a much higher price for it and would have lost more of their live stock, thereby imposing a