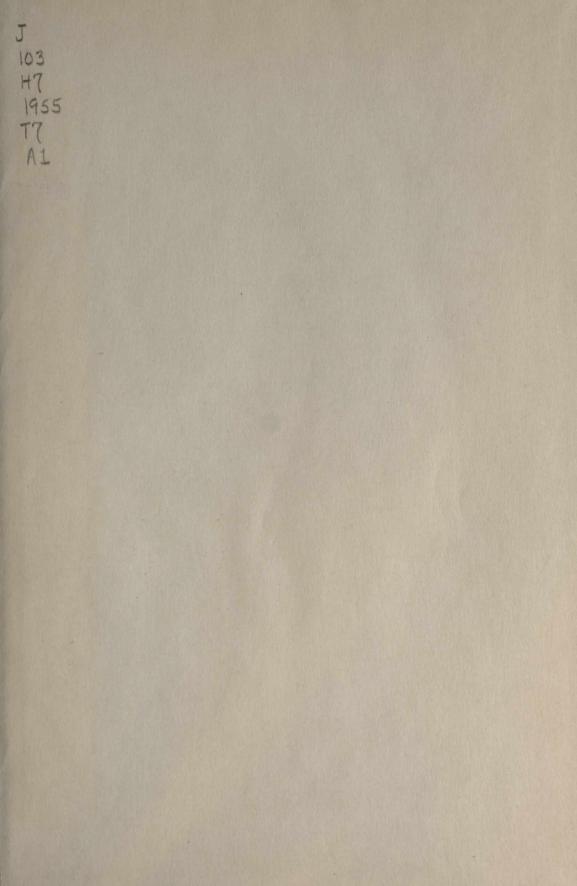
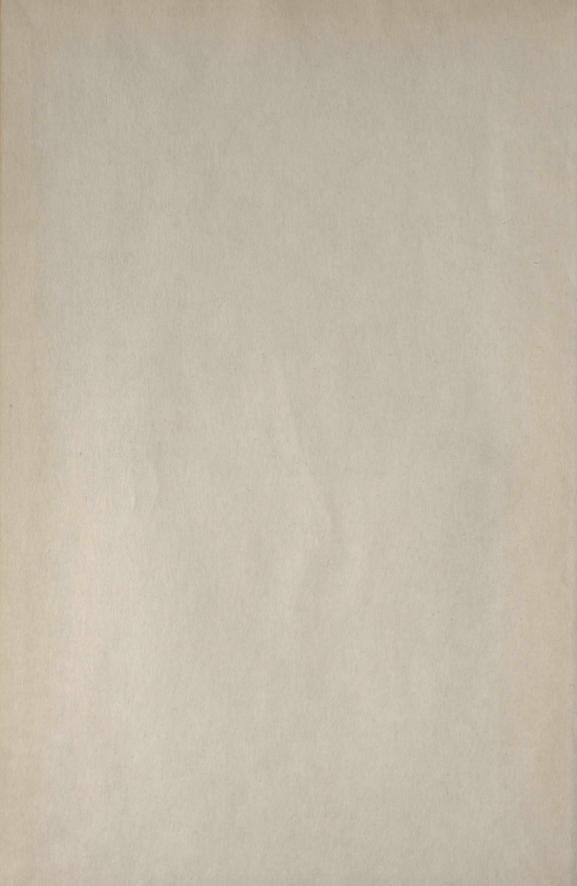
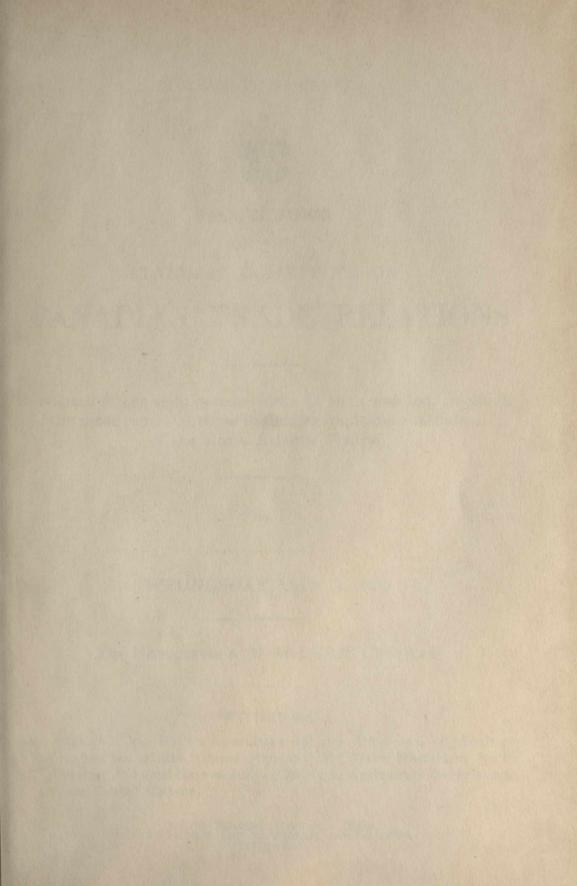


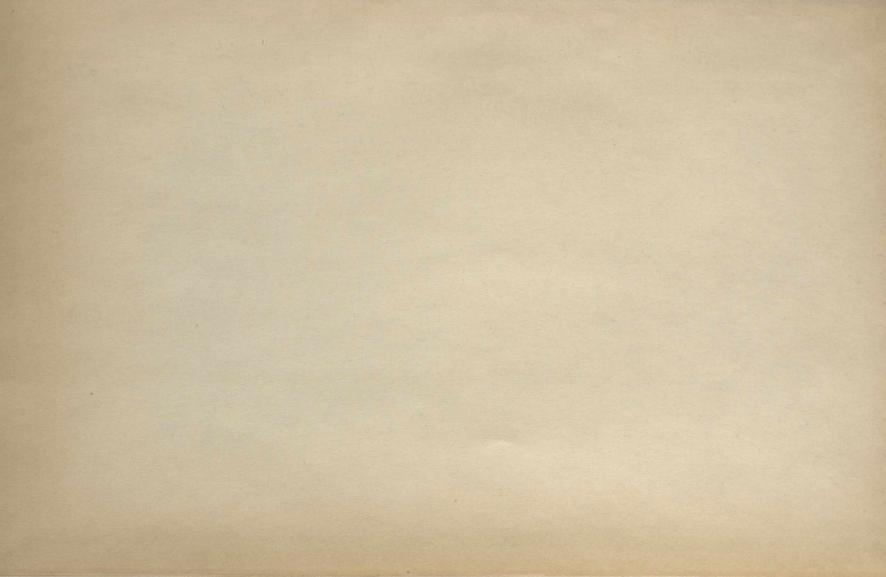
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1955

## THE SENATE OF CANADA



PROCEEDINGS

## OF THE

# STANDING COMMITTEE ON

# **CANADIAN TRADE RELATIONS**

in respect to the inquiry into what, in their opinion, might be the most practical steps to further implement Article 2 of the North Atlantic Treaty.

No. 1

# WEDNESDAY, MAY 11, 1955

The Honourable A. N. McLEAN, Chairman

## WITNESSES

Dr. Raymond W. Miller, consultant to the Food and Agriculture Organization of the United Nations. Mr. Gove Hambidge, North American Regional Representative, Food and Agriculture Organization of the United Nations.

> EDMOND CLOUTIER, C.M.G., O.A., D.S.P. QUEEN'S PRINTER AND CONTROLLER OF STATIONERY OTTAWA, 1955.

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# CANADIAN TRADE RELATIONS The Honourable A. N. McLean, Chairman

The Honourable Senators:

Baird Bishop Blais Burchill Campbell Crerar Daigle Davies Dessureault Duffus

Fraser Gouin \*Haig Hawkins Howard Kinley Lambert MacKinnon

Euler

\*Macdonald McKeen McLean Nicol Paterson Petten Pirie Turgeon Vaillancourt—(26)

35 Members-(Quorum 7)

\*Ex officio member

#### ORDER OF REFERENCE

Extract from the Minutes of Proceedings of the Senate, Thursday, February 24, 1955:

"That the Standing Committee on Canadian Trade Relations be empowered to enquire into and report on—

1. What, in their opinion, might be the most practical steps to further implement Article 2 of the North Atlantic Treaty whereby the signatories to that document agreed that—"They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them".

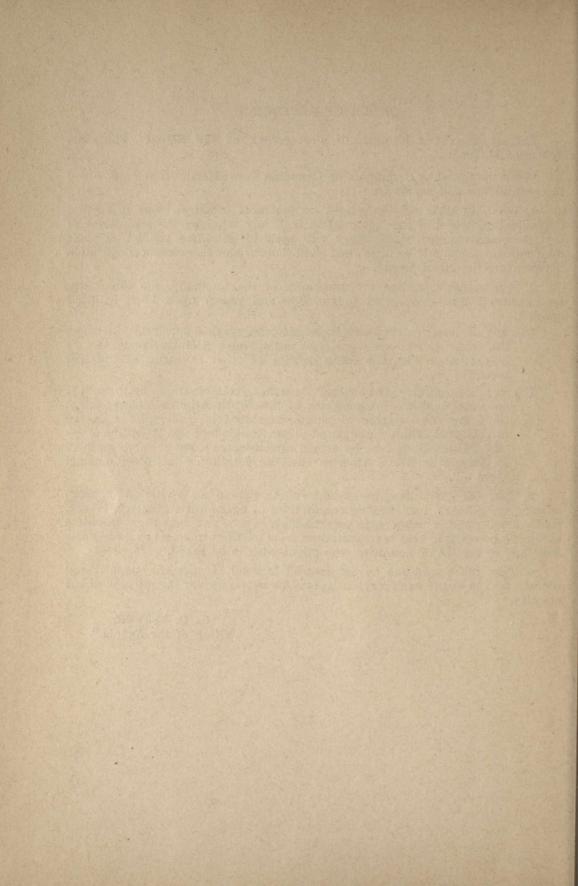
2. That notwithstanding the generality of the foregoing, the Committee be instructed and empowered to consider and report upon how, in their opinion,

- (a) any project for developing economic collaboration, specifically between the countries who are signatories to the North Atlantic Treaty, can be co-ordinated with the trade policies of other countries of the free world;
- (b) any project for developing economic collaboration between the countries which are signatories of the North Atlantic Treaty, might have the same degree of permanence that is contemplated in the twenty year Military obligation under Article 5 of the Treaty whereby 'the Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all'.

3. That the Committee be empowered to extend an invitation to those wishing to be heard, including representatives of agriculture, industry, labour, trade, finance and consumers, to present their views, and that the Committee also be empowered to hear representations from business interests or individuals from any of the NATO countries who might wish to be heard.

4. That the Committee be empowered to send for persons, papers, and records, and to secure such services as may be necessary for the purpose of the enquiry.

L. C. MOYER, Clerk of the Senate."



# MINUTES OF PROCEEDINGS

#### WEDNESDAY, May 11, 1955.

Pursuant to adjournment and notice the Standing Committee on Canadian Trade Relations met this day at 10.30 a.m.

*Present:* The Honourable Senators—McLean, Chairman; Baird, Bishop, Davies, Dessureault, Hawkins, Howard, Kinley, Lambert, Macdonald, Paterson, Turgeon and Vaillancourt.—13.

Consideration was given to the Order of Reference of February 24, 1955.

The following were heard and questioned by members of the Committee:-

Dr. Raymond W. Miller, Consultant to the Food and Agriculture Organization of the United Nations.

Mr. Gove Hambidge, North American Regional Representative, Food and Agriculture Organization of the United Nations.

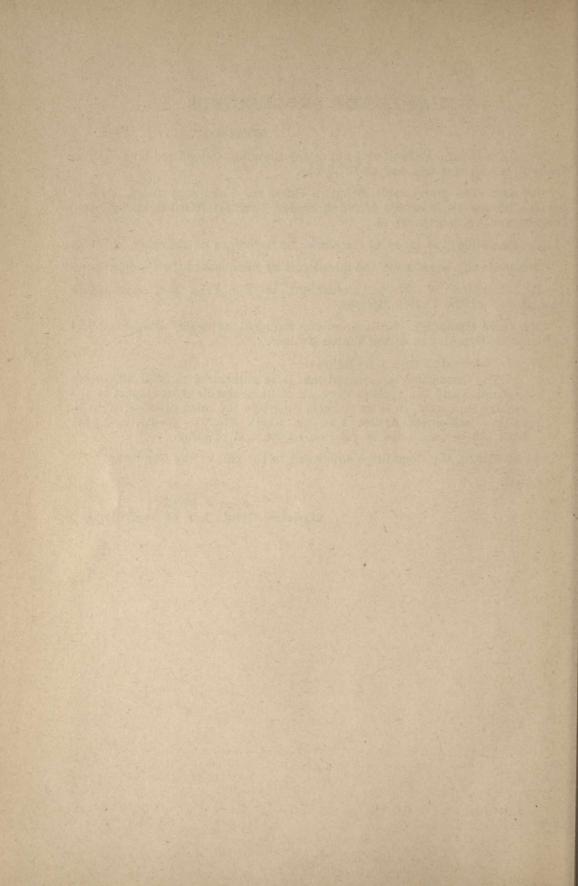
It was Resolved to report, as follows:-

The Committee recommend that it be authorized to print 800 copies in English and 200 copies in French of its proceedings in respect to the inquiry into what, in their opinion, might be the most practical steps to further implement Article 2 of the North Atlantic Treaty, and that Rule 100 be suspended in relation to the said printing.

At 12.10 p.m. the Committee adjourned to the call of the Chairman.

Attest.

John A. Hinds, Assistant Chief Clerk of Committees.



## THE SENATE

## STANDING COMMITTEE ON CANADIAN TRADE RELATIONS

Ottawa, Wednesday, May 11, 1955.

#### **EVIDENCE**

The Standing Committee on Canadian Trade Relations, which was empowered to inquire into and report upon the development of trade between countries signatory to the North Atlantic Treaty and with other countries of the free world, met this day at 10.30 a.m.

Senator McLEAN in the Chair.

The CHAIRMAN: Honourable senators, we now have a quorum, and there will be more members in attendance a little later. It is unfortunate that today two or three committees are meeting at the same hour, and for that reason attendance is not what we would like it to be.

I am sure we are all familiar with the resolution with which this committee is charged, and which is based on Articles 2 and 5 of the NATO treaty. I do not believe it necessary to read the resolution in detail, unless some members of the committee would like me to do so.

We are extremely honoured this morning to have with us Dr. Raymond W. Miller and Mr. Gove Hambidge. I do not know of any two men in America who have greater or broader understanding of the inside set-up of most of the nations of the free world than these eminent gentlemen. They have travelled extensively and explored the economy of these nations at first hand, and became closely acquainted with their political leaders.

Incidentally, I may have shown honourable senators a recent account of Dr. Miller's activities, which I cut out of the Ford Foundation of India. Perhaps Dr. Miller has not yet seen that account, but it was most interesting to read of his activities with the Ford Foundation.

Dr. Raymond W. Miller is presently Consultant to the Food and Agricultural Organization of the United Nations, lecturer at Harvard University, President of World Trade Relations Incorporated, Trustee of American University, Washington, D.C., and has been given the Hall of Fame Award for his work in marketing and distributing by the Boston Conference of Distribution at Harvard.

Mr. Gove Hambidge is presently F.A.O. representative for North America and a nationally known writer on agricultural and economic subjects. I have some highlights of his career before me, which I will give you.

Mr. Hambidge was born in Kansas City, Missouri, the son of a Canadian, Mr. Jay Hambidge, who was born in Simcoe, Canada. He worked as a freelance writer for many years for the Curtis Publishing Company, the New York Herald-Tribune, Harper's and other magazines, and for the Great Atlantic and Pacific Tea Company doing radio scripts.

Mr. Hambidge edited the Yearbook of Agriculture for seven or eight years, getting out the big volumes on Soils and Men, Food and Life, Keeping Livestock Healthy, Climate and Man, and so on. These monographs were a new departure and became well known all over the world.

He served as coordinator in the Agricultural Research Administration, U.S.D.A.

He attended the Hot Springs Conference on Food and Agriculture in 1943 as a member of the United States delegation; he served as Executive Secretary of the Interim Commission on Food and Agriculture, of which L. B. Pearson was chairman. This Commission wrote the F.A.O. Constitution.

Mr. Hambidge was the first person formally appointed on the staff of F.A.O., and is now F.A.O. Regional Representative for North America (Canada and U.S.A.).

He is the author of seven books, the most recent being The Story of F.A.O. published in April by Van Nostrand in the United States and Canada, and by Macmillan in England. This is the first commercial book on any of the special-ized agencies and the royalties go to F.A.O.

I think Mr. Hambidge will present the brief, but before he does so, I would like to call on Dr. Miller to address us.

Dr. R. W. MILLER: Thank you, Mr. Chairman, I am very happy to be here, and I will make my observations very short because Mr. Hambidge, in my opinion, has the story of the F.A.O. as it fits into the work of your committee better than any person I know.

Your Chairman spoke to me about two years ago about the work of your committee and has spoken to me several times about that since. As an individual citizen of North America, I happen to be particularly interested in what your committee is trying to do. I think this matter of trying to work in the economic life of the world as well as in the military phases of the thing is, in the long run, perhaps one of the greatest contributions that we can make. This F.A.O. operates in 71 member governments, it operates in all the countries that are in NATO and it also operates beyond it, and much of the prosperity of those countries in our NATO sphere, including the new one which came in yesterday, is tied up by under-developed countries of the world in which two-thirds of the people of this world are hungry.

I would like to take one minute to read the preamble to the F.A.O. of the United Nations which was written by an Australian, and he says:

The nations accepting this Constitution, being determined to promote the common welfare by furthering separate and collective action on their part for the purposes of

raising levels of nutrition and standards of living of the peoples under their respective jurisdictions, securing improvements in the efficiency of the production and distribution of all food and agricultural products,

bettering the condition of rural populations, and thus contributing toward an expanding world economy.

hereby establish the Food and Agriculture Organization of the United Nations, hereinafter referred to as the 'Organization,' through which the Members will report to one another on the measures taken and the progress achieved in the fields of action set forth above.

I think we as North Americans had better look at some of these economic things ahead of us. I am very happy your committee is in it and later on if there are any questions I will be very happy to answer them.

The CHAIRMAN: I will now call on Mr. Gove Hambidge to present the brief. Before doing so, Mrs. Rodgers is travelling as assistant to these gentlemen and I would like to introduce her to the committee now.

Mr. Gove HAMBIDGE: Mrs. Rodgers worked with me on a book I have just written on the F.A.O., and I would not have finished it without her help. I am afraid I am not going to talk very closely on the subject of economics and trade before your committee. The F.A.O. has a good deal of work in connection with commodities which I shall mention, but I am more interested this morning in trying to give you the broad picture of this organization than I am in trying to give you individual or specific information. As a matter of fact the F.A.O. is primarily a very broad organization and is not specialized along the narrower channel of trade like NATO. We are engaged in economic work and we are interested in trade because you cannot have an agricultural organization without getting into those fields, but it is by no means a primary interest. On the other hand, I would like to make it clear right here that the point I am interested in making is the fact that we are concerned with economic health, the economic health of nations and peoples, and you cannot have trade, you cannot have a decent kind of trade relations if you do not have economic health, and that is our main concern. This is a matter that is of interest to Canada, and, as a matter of fact, Canada has been one of the leaders in this field, and certainly in our agency.

Whenever I come to Canada, which is far too seldom, I have the kind of feeling a man has when he is returning home after a long absence. I suppose this is natural because my father was born not far away from here, over in Simcoe. His father in turn came to Canada from England. My father came down to the States at a fairly early age. He was a man who had very little formal education, but he made a mark in his profession of painting and drawing and design, eventually winding up on the staff at both Yale and Harvard. That is what happens to people from this country. Give them any kind of start and they really go places.

My godfather was also a Canadian, Peter MacArthur whom some of you may know, he was a humourist and poet and general humanitarian.

There is another reason, in connection with the work of F.A.O., why I feel at home when I come back to Canada. That is because the Food and Agriculture Organization was born here ten years ago, in 1945, at our first conference, held in Quebec. So this is our tenth anniversary. I don't know whether the Canadians, who are peculiarly responsible for the idea behind this organization and for making the idea a reality, are planning any kind of tenth anniversary celebration, but it might be worth considering.

As you know, the Chairman of the first F.A.O. Conference was your Minister of Foreign Affairs, L. B. Pearson, then Minister to the U.S.A. He spent two good long years, after attending the Hot Springs Conference, as Chairman of the Committee that set up this Organization between 44 countries. I was Executive Secretary and worked very closely with Mr. Pearson, and, as a matter of fact, prepared a lot of the early documentation which was the back-bone of the F.A.O. I do not think there was an international organization better prepared than this agency was. Mr. Pearson got experts from all over, and had committees working on every phase of our work. I think it was a good, solid foundation that they gave it.

Looking back over the ten years, I would say that Canada really started something.

I would like to talk to you on the broad aspects of our work, and I would like particularly to make two points, or to bring out two things.

The world is in a tight spot, and when you get down to the roots of the trouble it seems to me there are two things necessary to get us out of it. Other things are necessary too, of course, but these are especially fundamental. Each is an outcome of developments in modern science.

On one side you have science applied to agriculture and industry giving us the possibility of abundance such as men have never dreamed of before. In nations like Canada and the U.S.A. and much of the so-called Western World these possibilities are being realized. I hardly need to elaborate on that point with this group. You know that this country and the United States and a few other highly developed countries are in a sense bursting with abundance. Of course we could be better off than we are and have still higher standards of living, and I expect we shall; but the standard we do have is higher than has been known anywhere in the world on so wide a scale.

Over against this prosperous group of countries blessed with plenty of food and so many of the good things of life, you have another group still far down the scale of economic and physical well-being. They include half the people of the world or more, and they are still poor and undernourished, many of them living in bleak hovels, without enough clothing, illiterate and uneducated, dying young, lacking the modern tools and equipment necessary for good production, and often without enough physical vigor to do what we would call a really good day's work even though they work as hard as they can. But better living and greater abundance are possible for these great masses of mankind, and they are becoming more and more sharply aware that their lives and the lives of their children can be better.

It is this possibility of better times, opened up by modern scientific developments but not yet reaching down to all the levels of mankind, that creates much of the tension among nations and within nations today. When people see something they want very badly and think they can have it and are entitled to it, they are likely to try to get it by violent means if more peaceful ones don't seem to work. And there are plenty of troublemakers around to encourage them to use violence.

So the first fundamental need, as I see it, is the necessary effort to bring about a much better balance in the world than we now have.

The second need of paramount importance results from the cracking of the atom. Again, I don't need to enlarge on the significance of something that is so much on the minds of all of us. You are perfectly aware of the potentialities for destruction consequent on the mastery of atomic and hydrogen weapons. The second significant drive today, then, is the effort to bring about some effective kind of disarmament which will make it possible for civilization to continue on this earth and for men to stay alive and live in peace with one another.

Those two things have to balance if people are to live better lives. Economic development and the eliminating of atomic war go together, you cannot have one without the other. Unless you eliminate atomic and hydrogen war you are not going to be able to develop the world. In the development of the world you need to have a transfer of conflict from the realm of military operations to the realm of rivalry in social and economic development.

The first movement is the one expressed very fully and strongly in the Food and Agriculture Organization of which Canada is the godfather and which you did so much to shape in its early stages. And not only in its early stages but today also, for we have on our staff or associated with us in one way or another a number of Canadians who are continuing to play a vigorous part in our work. Dr. Barton, for instance, your former Deputy Minister of Agriculture is one who has worked with us from the beginning; he is still a member of one of our main committees, and not long ago he undertook a mission to Finland for us. Dr. D. B. Finn, who formerly held a similar post in Fisheries, is Director of the F.A.O. Fisheries Division. J. D. B. Harrison of your Forestry Branch worked for us for a number of years. Your Vladimir Ignatieff is doing an excellent job on our agricultural staff. Margaret Hockin and Marjorie Scott, both Canadians, are key persons in our nutrition and home economics work. There are a number of others, not to mention the technical experts from Canada who have gone out on field assignments for us in various countries. They have included Dr. E. S. Archibald, Dr. J. A. B. MacArthur, H. G. Dion (who not only worked on a field assignment but also was on our regular staff). Claude Hudson of the Department of Agriculture is soon to

undertake an F.A.O. assignment in Egypt. H. H. Hannam, head of your Canadian Federation of Agriculture and former President of the International Federation of Agricultural Producers has acted as an adviser to the Canadian delegations at all of the F.A.O. Conferences. We have also sent a dozen or so students to Canadian institutions on fellowships, coming from Burma, Chile, Ecuador, Egypt, Finland, India, Iran, Israel. And I believe about 30 Canadian experts have completed field assignments for us, and 14 or 15 more are in the field or on the way.

I said that the move for economic development through technical cooperation among countries is very fully and strongly expressed in F.A.O. In fact, the part played by F.A.O. is that of a pioneer in the whole modern growth of technical cooperation. True, there is a considerable background of earlier work by church missionaries and here and there by governments, particularly in connection with the colonial structure of the European powers; but the movement in its modern sense, I think, was led off by the Food and Agriculture Organization, the first of the new specialized agencies of the United Nations to come into existence, in our early technical missions to Greece and Thailand and other countries. That work was soon followed by a much larger development of technical cooperation by the U.S. Government through the so-called Point Four program and by the British Commonwealth countries through the Colombo Plan, in which Canada has played so large a part.

F.A.O. did a great deal to catalyze this whole movement. And we and other international agencies still have a peculiarly significant place if only because we are international rather than bilateral agencies. In other words, the 71 nations that belong to F.A.O. are members of a cooperative organization, which deals in knowledge and services for the benefit of the members. Each member has a vote and plays a part in shaping our program of work; each member shares the responsibilities as well as the benefits; each member receiving help from us knows he is getting help from his own organization, with no strings attached. That is a real advantage in a good many cases, and I think that because of the cooperative nature of our work the highly developed countries can use their membership in F.A.O. to as good advantage as the others.

So we have come quite a long way since the time ten years ago when, at Quebec, the whole idea of international cooperation was not much more than an idea. Now it is one of the biggest, most significant movements of our time, with a philosophy that is being more and more widely understood and accepted and an increasing degree of coordination among many agencies, focusing on objectives that are becoming a little clearer all the time. In my book, *The Story of* F.A.O., I put it this way:

"Hundreds, perhaps thousands, of scientists and other experts from many different countries are now scattered all over the world, pushing the frontiers of knowledge and its practical application further outward and helping to effect the innumerable adjustments in age-old institutions and ways that are needed to make new advances possible. Other thousands of young people from lands that have been thought of as backward are attending universities, colleges, and technical schools abroad and returning to work as experts in their own countries. If this is a slow and sometimes disheartening process, it is no more so than were the voyages of Columbus, Magellan, Frobisher, and Drake, which must often have seemed hopeless yet brought immeasurable results; no more so than the slow creaking of oxcarts across America to open a continent of opportunity. These great outgoing movements stir the imaginations of men, stretch their souls, focus their energies on big creative achievements."

That is a point that I want to make, we have a movement here that is something really new which is getting Americans and Canadians out all over the world to a greater degree than ever before in our history or in yours. This movement is going to grow, it is going to keep on growing. On the other hand you have a flow to our countries of people who need technical knowledge in order to go back and do a job in their own countries, and the flow is greater than ever before. The figures on this are astounding, and F.A.O. is only a small part of it, but the flow of these people to the Western world to get educated so they can go back to South America and the Middle East and the Far East is really quite impressive.

Now I want to give you a few concrete examples of the kind of work we are doing.

You might think of it in three broad categories—first, programs and projects of a regional nature, in the Far East, the Near East, Latin America, and Europe, in which we bring together neighboring countries for a cooperative attack on certain major problems common to all of them; second, programs and projects within individual countries; third, certain foundation studies and services carried on at headquarters and covering pretty much the whole world.

I take a good deal of pride in the regional operation of FAO because I think we were leaders in that kind of approach, which is peculiarly suitable for an international organization. The star example is perhaps the work of the International Rice Commission in the Far East. A number of years ago we were able to bring these countries together into an organization which pays a good deal of its own expenses by contributions from the members and which has undertaken a vigorous program for the improvement of rice production, processing, and distribution throughout much of the area where rice is the staple food. In the beginning there was an extreme shortage, but by now production has increased to the point where some countries that were formerly very short are beginning to meet their needs, and there are even signs of commercial surpluses here and there. But I want to emphasize that these are not surpluses from the standpoint of human need. There is still much hunger and malnutrition in this great area, and a vast amount can be done to step up production per man and per acre, and to improve storage and trade.

The work of the Rice Commission has been concerned first of all with the breeding of better varieties of rice, in particular hybrids between Japanese and Indian types bred especially for responsiveness to fertilizers as a means of increasing production. It was this kind of approach that enabled Japan to practically double its production per acre in a period of 50 years. The Commission has also been tackling a good many other problems which I shall not go into here. The main point is not so much the particular projects as the fact that for the first time a group of countries which formerly never exchanged scientific information, never got together on projects of this sort for their mutual benefit—countries where the scientists and technicians always remained in their own little cubby-holes, cut off from each other—these countries are now working together fully and generously, constantly exchanging information and providing services for each other.

Now the information is interchanged between the different countries much in the same way that the United States and Canada carried on their work in the trading of strains of rust resistent wheat, that is much the same kind of thing, but they have never had it before. This is an extraordinary achievement, possible only through the kind of organization that was founded ten years ago here in Canada.

I could go on with a good many striking examples of this sort of approach to problems of production and processing and economics in agriculture, fisheries, and forestry. Another good one which you undoubtedly know all about is the rinderpest campaign in the Near East and Far East. Here again Canada played a part because some of the new techniques for producing effective rinderpest vaccines were developed here with the cooperation of the U.S. during the war. A good deal of work was also done elsewhere, notably in Africa and Japan and India. The part played by FAO was to encourage technical advances in the production and use of cheap and effective vaccines and to provide the vision and drive which said that all the countries afflicted by this scourge, which is one of the worst of all livestock diseases, could wipe out the plague if they would undertake sufficiently vigorous programs within their own borders and cooperate fully with each other in the exchange of materials and techniques and the building up of adequate veterinary services. This is being done, and I believe it is safe to say that the time is not too far distant when rinderpest as a serious handicap to livestock production will be a thing of the past throughout this whole area.

In the case of locusts in the Middle East we have been able to serve a similar catalytic and coordinating function. These voracious insects, in swarms of unbelievable magnitude and destructiveness, have been sweeping over many of the countries in the Mediterranean area and farther east for thousands of years. Some measure of cooperation in controlling them was achieved during the war under British leadership. This has now gone much further with FAO as the focal point. The cooperating countries are contributing funds and personnel of their own to supplement what FAO can provide and other countries outside the area are also chipping in.

It is far too early to say that the problem of the desert locust has been licked. There is much more fundamental work to be done before we even know exactly how to lick it. But the situation now is better and the outlook is brighter than it ever has been before, thanks both to the use of modern materials and techniques and to the development of cooperation among the countries concerned. A regional locust control program on a much smaller scale is also being carried on successfully in Central America under FAO auspices.

In plant breeding also we have other regional projects. You undoubtedly know about the work of hybrid corn in Europe, which began with the provision of seeds contributed from U.S. and Canadian sources and which has now progressed to the point where the European countries are developing hybrids of their own. I don't have an up-to-date figure on the results of this work, but according to the last account I had, the value of the corn crop in a two-year period was increased by some \$64 million over what it would have been without the use of hybrids; yet the area planted to hybrids was only six per cent of the total corn acreage. The cost of that \$64 million gain to FAO was just about \$40,000 and that covered expenses for a good deal more than the two years.

Here again the secret is bringing countries together for full-scale cooperation.

Another regional program that is just starting and has extremely worthwhile possibilities is the breeding of rust-resistant wheats and improved strains of barley in the Near East and Mediterranean area. The dynamic leader in this work was your Dr. L. E. Kirk, who comes from Saskatchewan and held a high position on the F.A.O. staff for a number of years.

The foot-and-mouth disease work in Europe is another example of a regional program that is now only at its beginning but holds possibilities of bringing about a kind of continent-wide control of that terrible disease which has been impossible up to now. Beginning with a good reporting system and the widespread use of new inexpensive vaccines, I think it is likely that the recently organized European Foot-and-Mouth Disease Commission will bring the disease pretty thoroughly under control. You Canadians have plenty of reason to realize the need for cooperation in stamping out this particular scourge which can so rapidly spread far and wide from a remote focal point. Another good example of regional work is the project for studying and eventually eliminating the disease now commonly known as kwashiorkor, in some of the African countries and elsewhere. This disease is nutritional and it is due fundamentally to lack of sufficient protein. It commonly strikes young children in areas where the diet is so poor in protein that after weaning from mother's milk the young child is suddenly and drastically deprived of the kind of food it needs most. The effects are widespread and devastating throughout the body and the death rate is extremely high. Cooperative field studies made by F.A.O. and W.H.O. helped to establish the nature of the disease and to prove that it can be dramatically controlled by adding some good quality protein to the diet of the youngsters. In this case the protein was in the form of dried skim milk, which was available through the United Nations Children's Fund; but the main problem is to build up better local food supplies.

The same kind of story could be told about some of our fisheries work, particularly, for example, the work of the F.A.O.-sponsored Indo-Pacific Fisheries Council, and the work in forestry through the regional forestry commissions of Europe, the Far East, Latin America, and most recently the Near East.

But although to me the regional programs are especially interesting and worthwhile, they are only the smaller part of our work. Most of it naturally has to be carried on within individual countries. The number of assignments we have completed or have under way now totals 900.

I might mention one or two examples. The Ganges-Kobadak irrigation scheme in East Pakistan should be especially interesting to you. In this area, which used to be called East Bengal, there have been historically a number of very severe famines. Rainfall is high, but it is all dumped on the earth during the monsoon season, when there are extreme flood conditions. After the water runs off there is no more rain during the year so that you actually have what amounts to drought. The flood waters are used effectively for growing rice, but only one crop can be produced in a year. The great need is for an adequate storage and irrigation system which would make possible the production of two or even three crops a year as well as providing a good many other advantages. F.A.O. has drawn up a full-scale plan and program for such an irrigation system and I believe a sizable beginning has now been made or is about to start. Through the Colombo Plan, Canada is providing a milliondollar power-generating station for this project, and the U.S. under its bilateral program is furnishing a very sizable amount of equipment.

The fisheries project in Ceylon is another interesting case of this kind of cooperation. There F.A.O. started demonstrating the use of motors for fishing vessels to enable the fishermen to go farther out to sea where they could bring in bigger catches, and also to make it possible for them to fish in weather when it is not possible to go out in their little sailboats and rowboats. The results of the demonstration were amazingly good, and there was soon a big demand for motors. These too have been provided through the Colombo Plan. The improvement of fishing vessels and gear throughout the Asiatic area and elsewhere is one of the main concerns of F.A.O., and there is a good deal of demand for our help from a great many countries.

I may say that this one particular form of assistance is doing very well, and it is an instance of a movement that is spreading to other parts of Asia. As you know, it affects a large number of people who are extremely poor and who are tied down with very backward conditions. I am sure Senator Maclean will bear me out in this, when I say that the enormously large potential of production from the sea which has not yet been developed is most valuable from a nutritional standpoint for people who are already on a poor diet. The fish, the products of the sea, can give them the food they need, and can do so quite economically.

I can mention only a single example of the forestry work in individual countries, but that is a significant one. It concerns the development of the vast forest resources of the Amazon Basin in Brazil. These have been exploited in the past sporadically and unevenly so that they have not produced anything like the revenue they should for Brazil. The Government is now working intensively on a program for much more systematic development of these forest resources, and I believe it is accurate to say that the principal underpinning for the work was the thorough survey made by a group of experts sent to that country by F.A.O. Pilot projects are now under way that hold much promise for some very worthwhile future developments.

I am afraid that this is about as far as I can go with the time I have in telling you about our work.

I have already said that the heart of it is the more general program at headquarters. This includes all the statistical yearbooks and studies with which you are familiar, to which you contribute, and which I hope you find useful, dealing on a world-wide scale with agricultural production and trade, fisheries, forestry and forest products, and nutrition. A number of these have been firsts, in the sense that I do not think there was any international statistical reporting on either forestry or fisheries until we got these underway.

I might mention one other thing which concerns Canada. We have become involved with the United Nations program concerned with the peaceful use of atomic energy. As you know, there will be a conference next August in Geneva, at which I suppose Canada will be represented. We are attempting to work out a picture of what is likely to happen in the peaceful use of atomic energy in the world with respect to agriculture, forestry, fisheries and food. We want to know what is now being done and what some of the possibilities are. While we are getting co-operation from the United States, Canada and the United Kingdom, where most of the work is done, it is our intention to interest countries the world over. This, I think, is a promising beginning of something which may be extremely worthwhile. We want to get good examples of work in this field. In this respect may I say that there is perhaps too much tendency to draw examples from the United States where so much work is being done; I should like to see more examples come out of Canada, the United Kingdom and any other country where we can get them.

As you are aware we have also been concerned to some extent with commodity problems. Dr. S. C. Hudson of your Agriculture Department is a member of our Committee on Commodity Problems, which is soon to have one of its regular meetings in Rome, and Dr. W. C. Hopper, your Commercial Counselor in Washington, has served very ably as Vice-Chairman of the Subcommittee on Surplus Disposal which for some time has been plugging away at some of the more troublesome problems connected with surpluses. For the time being this subcommittee is concerned particularly with the problem of surplus dried skim milk because that seemed to be the product that lent itself most readily to some kind of effective international action. It is too early to say just what will be the outcome of this work, but I can tell you that the group in Washington evidences a fine spirit of co-operation.

I am afraid this is a rather sketchy account of our work. What I want to emphasize most is the point I made in the beginning, that F.A.O. is a tool or instrument of modern nations for helping to achieve the kind of well-being we must have if we are to offset the disruptive forces now threatening to tear our world apart. You may say there have always been these disruptive forces, and that is true. But they take on a particularly terrible significance in the blinding glare of atomic and nuclear explosions. It is imperative that nations and peoples succeed with the kind of effort that is being made through F.A.O. at the practical level as well as with negotiations at high diplomatic and political levels aimed at more direct elimination of the threat of war.

F.A.O. is a relatively small and humble part of the whole picture, but it has value far beyond its size. I think Canada can take a great deal of pride in being the godfather of this undertaking.

I may say that it is more than a negative thing. It is not concerned entirely with eliminating the possibility of war, but with the development of the enormous potentials for humanity, subject to the negative aspects of the destructive possibilities of atomic and nuclear weapons. The positive aspect embraces all these other things that can be done through modern scientific and technical development; it involves such things as your committee is concerned with—trade, commerce, and all the economic relations among nations.

Thank you, gentlemen, for listening so patiently to me this morning. If I can ever be of further help to you, I am at your service.

Senator KINLEY: Mr. Chairman, I have to leave to go to an important appointment I made a week ago, but in taking my reluctant departure I do not want to indicate that I am not interested in the subject being discussed. We are indeed most fortunate in having these gentlemen come and give us their interesting thoughts and experiences in this field, and I shall read with interest the reports that come from the committee.

The CHAIRMAN: We are all aware of the great interest Senator Kinley takes in this subject. I am sure all senators agree that Mr. Hambidge has given us a most interesting account of what is being done throughout the world today to help nations develop their resources, to clear up unnecessary diseases, and to put these nations back on their feet so that they will have more purchasing power and in that way bring about conditions which will offset wars.

The meeting is now open to any Senator who wishes to ask questions of Mr. Hambidge and Dr. Miller.

Senator VAILLANCOURT: Have any members come to FAO from behind the Iron Curtain?

Mr. HAMBIDGE: No. We had a rather interesting time on that very point in Quebec. Mr. Pearson and I were trying to keep things on an even keel. The Russians went to that meeting with three representatives, Russia, Byelo-Russia and the Ukraine, but we never knew until the last minute whether or not they were going to join. Finally, they received word from Moscow that their government had decided against joining.

Senator VAILLANCOURT: If you remember, back in 1943 they were at FAO when it held its meetings in Hot Springs.

Mr. HAMBIDGE: Yes, they were at Hot Springs; they were on the Interim Commission and did a very good job with us—of course not without some trouble. However, I always had the feeling that had the question been up to the members from Russia they would have joined, but it was a matter of government policy and entirely out of their hands.

Senator VAILLANCOURT: They had much trouble of this kind in 1943.

Mr. HAMBIDGE: Yes. Later throughout Eastern Europe all the Iron Curtain countries withdrew, and we now have no Iron Curtain members.

Senator ROBERTSON: Mr. Hambidge, I read a year or so ago that because of the vital need for proteins, particularly fish, an experiment was being carried out with the idea of growing or planting fish, temporarily I suppose in the rice patches. Did that ever develop?

Mr. HAMBIDGE: That is much more than an experiment. I did not go into it here because there were so many things I felt I should cover. The whole business of inland fish culture, as distinct from sea fishing, is becoming of increasing importance. It is an old art or practice in parts of the Far East, and one will even find that this "pond" culture of fish goes back in Indonesia some four or five thousand years. They developed the art to an extraordinary degree.

At the demand of governments we have jumped into this field to help develop pond fisheries in Thailand and also here as well as in Haiti, San Domingo, and elsewhere, pond culture is only a small part of it; they loose the fish into whatever streams and irrigation ditches there are, and into the rice fields. While the rice fields are flooded the fish help fertilize the rice plants, and if it happens to be a fast growing variety of fish with a high rate or reproduction, the people can harvest quite an enormous quantity of protein food when they drain the rice field.

Senator ROBERTSON: How long a period would it take?

Mr. HAMBIDGE: In the case of the rice fields, I don't know, but it is a matter of less than one year. In the case of the ponds, ditches and streams, of course it is a year-round operation. In Haiti, for instance, they stock the rivers, and when the rice fields are flooded from the river the fish automatic-ally flood out over the field, and in that way they are restocked.

Dr. MILLER: May I say, Mr. Chairman, that I was in Bangkok, Thailand, where we saw them harvest as much as 3,000 pounds of Tilapia per hectare out of the rice fields, over a period of three and a half months.

Senator ROBERTSON: I take it, they were put in the rice fields when they were very small.

Dr. MILLER: Yes, they are put in when they are not over an inch long. The story of the Tilapia is a romantic one. This species of fish is able to grow to adult size because the mother fish carries the young ones in her mouth until they are able to take care of themselves. In that way they are able to avoid the enemies which normally kill the young fish.

Senator BAIRD: And if they get frightened they dash back to the mother fish.

Dr. MILLER: Yes. We experimented by tapping on the side of an aquarium, and the young fish quickly returned to the mother's mouth.

Senator LAMBERT: I would like to ask a question or two of Mr. Hambidge and perhaps Dr. Miller could also contribute some light on this. The F.A.O. is a special agency of the United Nations Organization and it depends upon whatever influence it can bring to bear upon the national governments for any progress that is made. In other words, it is dependent upon the policies of the individual governments that are represented through the F.A.O. or the individual countries that are represented through the United Nations for any progress that is made in connection with the objectives for food production and distribution. In that connection I would like to have an opinion given to this meeting giving some enlightenment on the observation of the note that is referred to on page 10 of this brief:

Dr. W. C. Hopper, your Commercial Counselor in Washington, has served very ably as Vice-Chairman of the Subcommittee on Surplus Disposal which for some time has been plugging away at some of the more troublesome problems connected with surpluses.

I might say that embodied in that statement is a very real problem so far as Canada is concerned in relation to cereal production. I do not want to introduce political issues, but there is a very good economic platform, the disposal of surpluses with which to feed the world, but how far can the F.A.O. go in being instrumental in helping to straighten out and solve these problems 58095-2 of making the road easier for the interchange of commodities to those countries that need them?

Mr. HAMBIDGE: Well, that is a difficult question and, of course, this is off the record. Bert Hopper took that particular job with a good deal of reluctance. I do not know whether you know him or not, but I think he is a fine fellow, I am very fond of him. He did not want to become vice chairman of the committee, but they all wanted him because they knew he would do a good job. He is modest and capable. The Canadian government, I believe, has not been too enthusiastic about the committee, because they did not see just exactly where that fitted in and Bert has never tried to take an aggressive course in the work of the committee. He has just done a good, honest job.

That particular operation that you put your finger on is extremely difficult. F.A.O. has been trying to do some work with the commodity problem for a long time. We started out with Sir John Orr with a very big scheme under his leadership for a world food board which you may remember. Then some governments refused to go along with that. It was projected as a board that would have a good deal of power internationally and would buy and sell stocks and hold them to prevent extreme fluctuations in prices that were bad for producers and would store stocks against shortages to help protect consumers. The governments did not accept that. Then, proposals were made under the next Director General for an international committee clearing house, a somewhat similar operation. That too was rejected by governments. Then they went on with this Commodity Committee in Rome which has been confined to keeping the commodity situation under review utilizing the F.A.O. staff for commodity studies. They serve mainly as sources of information for policy guidance.

Well then, F.A.O. had a famine reserve proposal and that for pretty sound reasons was rejected, not because governments did not want to set up a famine reserve, but because they may feel it has proven to be practicable to mobilize reserves in countries where there are surplus products and throw them in very quickly if F.A.O. decided there was a famine condition. Then the organization set up this subcommittee on surplus commodities working in Washington. That has been a difficult operation and the committee was on dead centre for some time but they have begun to move recently. There is a desire on the part of a lot of countries to do something about this, but you come up against some of the most difficult economic problems, well, you know what they are as well as I do. Many countries prefer to do that sort of thing bilaterally and not through an international organization. That is what it really gets down to. So the committee has been going along and studying a lot of things, they have come to grips mainly with a scheme for disposal of surplus of dry skimmed milk.

The Committee has been making a study of something that may be of some interest in connection with grain surpluses to see what possibilities there are of utilizing surplus foods, over and above what a country would normally take in its trade operations to help finance development projects of one kind or another. That was a proposal that was made back in the days of the International Committee clearing house. The United States surplus proposal program contains clauses for use of surpluses in that way. The Surplus Commodity Disposal Committee is making some studies on that, and we will have a report very soon which I shall be glad to send to your committee, and I think it can be of direct interest to Canada. I do not want to say that the Surplus Commodity Disposal Committee is going to do any very big job, but I think it is keeping a toe-hold in the commodity problem. I feel the commodity business is capable of an international approach, but it is very difficult to make it, because governments do not want to hand over their powers in this field. However, I have a feeling that gradually in the long run they will do it more and more. I do not know whether that answers your question or not.

Senator LAMBERT: I think, to put it briefly, a much clearer perspective and very much greater measure of enthusiasm was associated with these great things of the F.A.O. before the war was ended. I happened to be in Washington at the time of the meeting, the great international meeting of agricultural scientists who made a report and then did something they had never done before, they concluded with a resolution recommending that certain policies be adopted by the governments of the respective countries in relation to conservation and cultivation of food. At that time great emphasis was placed upon cereal products, that wheat particularly could be carried for years and used as an emergency source of supply. The picture that was drawn over ten years ago, I think it was in 1943, of a dire calamity and the need for conservation and education was something that shook everyone to focusing their minds upon this problem with the result that the F.A.O. came into existence as part of the United Nations.

Mr. HAMBIDGE: That was true at the time.

Senator LAMBERT: And I do not think at any time since the war ended has the cereal production or the problem of cereal production and distribution been a very great problem. Now then, I am mentioning that because to contract the outlook, the long view perspective of a problem with the actual working out of that problem, the details of policy and so on applied to this case as they go along are rather confusing and sometimes obstructing the easier flow from one part of the country to another where it is needed. The same thing can apply to the I.T.O., the International Trade Organization, their agreements certainly would have, I think, a very very important bearing on the work of the F.A.O.

Mr. HAMBIDGE: They certainly would have.

Senator LAMBERT: But the idea of objectives in connection with the I.T.O. and, I think, to a certain extent of the F.A.O. when it was formed have really not been realized by a long way and the political and economic factors that prevail in each of the particular countries are the chief obstacles that have to be removed or solved before you can get very far.

Mr. HAMBIDGE: That is all right, but it took quite a long while to develop the United States, it took quite a long while to develop Canada, and I just do not feel too discouraged. I think progress is being made I think we have had 2,000 or 3,000 years of doing things in a certain way, and now things are cracking faster than you would think possible. Things are changing, they are bound to change, they have got to change and we cannot be too impatient about it. You may think you know all the answers in a country, but you do not, because you are not part of the culture of that country any more than the United States which is closely associated with Canada can tell you how to run your affairs.

Senator LAMBERT: I would like to conclude my observations with this, that I believe, very very sincerely and very definitely in the cause that is being served by the F.A.O. and by the United Nations as far as it goes in that field. What I am emphasizing is a very great need for work at home as well as abroad, and really getting at a practical acceleration of the objectives which the F.A.O. have.

Mr. HAMBIDGE: I am not sure we have all the wisdom on the world, we have to add to our own wisdom as we go along.

Senator LAMBERT: I think one goes with the other quite a lot.

The CHAIRMAN: Any other questions? Mr. Turgeon, you take quite an interest in the work, have you any questions?

Senator TURGEON: In view of what Senator Lambert said, I would like to ask this question: roughly, am I right in assuming that any person who reads the various speeches at the initial conference in 1943 when the F.A.O. was set up, they would naturally believe that all members of the various countries, and I mean particularly the larger producing countries, were prepared to go out on a much freer trade relationship than previously. Would that be the feeling that anybody leaving the initial conference would come away with?

Mr. HAMBIDGE: I think they would, yes, I think that was part of the atmosphere.

Senator TURGEON: I mention that because I do not think it has been carried out by some of the bigger countries at the present time.

Mr. HAMBIDGE: That is true, it shows that conditions do change in the field of economics.

Dr. MILLER: Mr. Chairman, may I comment on that?

The CHAIRMAN: Certainly.

Dr. MILLER: My personal observation, I have been in about 45 countries in the last seven years and I usually meet with a pretty good cross section of production and distribution in agriculture and a certain amount of men in government and Senator Lambert put his finger on the matter, unfortunately the matter of food production in agricultural areas is only confined to that and fishing in fishing areas. There is nothing very dramatic about it, and the political and economic and military and the social and the other people who are the leaders as a rule just take food for granted. These people do not pay a great deal of attention to it, it is not a second-class vocation, it is a vocation they do not pay any attention to until they all get hungry.

I was introduced as a member of the faculty at Harvard University, that is a business school, and I think one of the biggest problems facing us is a matter of getting business and people in cities realizing the fundamental causes of international friction and problems that come from the maladjustment of food production and the maladjustment of food distribution. The Senator from Quebec and I have been friends for a long time, and are interested in the matter of distribution and I think that is one thing that Canada can offer tremendous help in. Frankly, one of the biggest problems concerning the economic stability in your area, and that is what you are interested in, is the matter of the maladjustment of agricultural produce. Now, I may be in Greece the week after next, and then going up into Yugoslavia where I have not been before, but I know what they are going to say from what I have seen in other countries. I find in most countries that the powers that be in government and in business do not give very much consideration to the things that Mr. Hambidge has put in this report. I am one of those firm believers, as an individual I am a sort of crusader, I had nothing to do with F.A.O. in the days you talk about, not until 1949 directly, but I think this attack upon the fundamental problems of food production and distribution is, if not the only one, it is one of the few attempts that is being made in the world to do away with the causes that lead to international friction and trouble. I think one of our friends over at St. Francis, Jimmie Tompkins, made a statement that it was pretty hard to make a Christian out of a person who had wrinkles in his belly. There is probably a lot of truth in that. I want to emphasize what Senator Lambert has said, and if you people in this NATO area can begin to get some good sound footing in the NATO countries in the matter of not only production but distribution, I think it would be a good thing.

Senator LAMBERT: I do not want to bring the meeting to a close, but I would like, on behalf of the committee as a whole, to express our very great pleasure and privilege in having Dr. Miller and Mr. Hambidge here and

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discussing this problem with us. I think it is over 35 years ago that I met Dr. Miller when the interests in agriculture co-operation were pretty dim between the Farm Bureau Movement in the United States and the co-operative program of the Western grain growers in Western Canada and yesterday when I met him it was quite clear that it had been a long time since that contact had been made. I think he has been more consistent than I in following that straight path towards accomplishment in that field, and I am sure we all wish for both these gentlemen the greatest possible success in the cause they represent.

The CHAIRMAN: We have had a good deal of information given, and we have been given a great deal of food for thought, and on behalf of the Committee I would like to thank you for taking time to come and visit us. We know you are busy men, you have to travel a great deal, but you took the time to come to our committee, and you have given us a wealth of information.

Mr. HAMBIDGE: Thank you, we certainly appreciate being here. The Committee adjourned to the call of the Chair.

