

of the seventeen which have taken part in the work of the Commission to date.

I do not minimize the resistance which still has to be overcome but I do maintain that to date very remarkable progress has been achieved and that we go forward in good heart to complete a task which is in the interest of *all* peoples and to the real advantage of *all* nations.

EARLIER HISTORY

I turn back now to the earlier history of these matters to recount to you something of what has taken place.

The whole business of the development and use of atomic energy is of special interest to the members of this audience, for Canada was very closely associated with the United Kingdom and the United States in the project which resulted in the first use of atomic energy in war - a use which I would observe was decisive in bringing to a quick end Japanese resistance in their home islands and the consequent surrender of all their forces throughout the theatre of operations. Thus the first use of atomic energy in war will always be associated in our minds with a proper ending to the world wide ordeal to which we were subjected in World War II - a struggle in which our way of life had been placed in peril by the evil which the Axis autocracies had sought to impose on the world.

In the last phase of World War II our 6th Canadian Division, which following victory in Europe was being organized in Canada, was destined for the assault landings in Japan and would have taken part in the heavy battles which would have followed. The success of the atomic bombs thus saved Canada from very many casualties and thus their first use to end a tyranny and to restore peace is for us a good augury into the future. We may well look forward to the application of atomic energy to the peaceful progress of the world and to the contribution

which this may make to the happiness and welfare of men of good will everywhere.

The evidence shows clearly that the possibilities for the beneficial peaceful uses of atomic energy are literally incalculable: in medicine - in chemistry - in biology - tools of such novelty and power and aptness to the task in hand, that wherever they have been freed for use, the frontiers of knowledge are being pressed back and the vistas of human understanding widened in a most remarkable fashion.

CANADIAN WORK

In Canada the inspiring task of leading and stimulating these developments and helping the research workers at our universities in their endeavours has been given to the National Research Council. The Council has been made the operating authority for the Atomic Energy Control Board with jurisdiction over the plants which have been erected at Chalk River. The work in hand there will therefore be made to contribute directly in the search for new knowledge.

We would be very happy indeed to give the freest information about this hopeful work but unfortunately as matters stand it is not in all fields that there is freedom to use or to give information. Nor can this be so at present, for the materials which release atomic energy have a dual character. They are useful in the peaceful arts but they are also most highly dangerous and in the hands of unscrupulous persons, even in comparatively minute quantities, their possession may be a terrible menace to our security.

It is for this reason that in all matters related to atomic energy the requirements of national defence must take precedence and there can be no compromise of security until the position has been made safe by means of an international agreement for the control of atomic energy which will give acceptable safeguards enforceable with certainty.

LACK OF AGREEMENT

The limiting factor on the peaceful development of atomic energy, particularly in its application to power and other large uses, is the absence of this international agreement for its control and regulation and so the best service which can now be rendered is to do everything possible to develop this agreement under which we may hope that all nations may come to have confidence that atomic energy will be used for peaceful purposes only. As part of this agreement it is proposed to set up a system of safeguards and controls which will in fact ensure that atomic war cannot be prepared or at the least that if any nation should attempt to do so then the situation will be promptly known and reported to all other nations so that they will be able to take timely action as required by the circumstances.

It has been thought by those who have studied all aspects of this problem that without undue restriction on the peaceful use of atomic energy and without the setting up of an unduly cumbersome organization, it would be possible to provide at the least several months' warning before atomic war could be launched by any nation on any significant scale. It is thought that the certainty of having such a period of warning during which appropriate counter measures could be taken should give the nations confidence to undertake the establishment of such a system, which, once established, could be expected to develop in reliability.

If confidence can once be established that atomic war is not being prepared, it may reasonably be expected to extend to all other weapons of mass destruction and ultimately to war itself. It seems therefore that the key to the situation in this troubled world is agreement for the control of atomic energy.