Hon. Mr. Howard: Hear, hear.

Hon. Mr. Reid: Now, we are facing quite a problem, and before dealing with that problem I will try to streamline my remarks and endeavour to keep the picture clear, particularly for the new senators who have not heard anything about sockeye salmon. I repeat that the Fraser River is the greatest sockeye salmon stream in the entire world. We met with disaster in 1913 when the contractors building the railway through to British Columbia blew down part of a mountain into the waters at the place they call Hells Gate Canyon, and in that year few fish got through the canyon to spawn. There is one characteristic of the sockeye salmon that the others do not have—they will not lay their eggs in any other gravel bar but the gravel bar where they were born. So in 1913, when hundreds of thousands of tons of rock fell into the canyon, some 90 feet wide and 190 feet deep, where the Fraser goes through the gorges of the mountains, very few salmon got through Hells Gate Canyon in that year. This may sound a tall story, but I am giving the facts, which I know because I happen to be chairman of the International Pacific Salmon Fisheries Commission, set up by the two governments of Canada and the United States in the year 1937. I am now the sole remaining original member on that commission, so I should know something of this subject. In 1913 there were canned 2½ million cases of sockeye salmon alone, and it was estimated that 10 million sockeye salmon were on the way to the spawning grounds that year when most of them were blocked at Hells Gate Canyon. Two and a half million cases meant that 25 million sockeye, eight or so lbs. in weight and of goodly size, were caught and canned, and 10 million headed for the up-river spawning grounds.

The department made an attempt to clear out the rocks but it was not entirely successful. And then we had to wait until we reached an agreement with the United States before we could set up the Sockeye Commission now in existence.

Someone might ask, "What has the United States got to do with British Columbia rivers?" Well, the situation is that we are on the rearing end. Those salmon are reared in the Fraser River and in the lakes, but when the salmon come back to spawn the Americans are on the catching end and we could not very well go ahead and spend millions of dollars trying to rehabilitate the lost runs of salmon as long as the Americans outside were able to catch the fish that we had reared. So in 1937 the two countries finally signed a treaty, under which we were given powers to rehabilitate, to extend and bring back again the once great runs of salmon of the Fraser River, with the added duty of dividing the catch equally between the Americans and ourselves.

And may I say that we are very proud of the regulating end of it. We have been operating in the dividing of the fish since 1946, but in the first four years we were not allowed to regulate, we were limited to investigation work. We have not been out more than 4 per cent in the division between the two countries, which I think is extremely remarkable when you realize that these salmon runs are spread over many, many months. Now, one could speak at great length on this, but I am endeavouring to streamline it, or shorten it, shall I say. We have difficulty even in British Columbia in getting people to understand that the sockeye salmon is not the spring salmon or the cohoe or the pink. You can do with some of those other species what you cannot do with the sockeye.

May I say we have had lots of help—biological, scientific and engineering—and both the United States Government and the Canadian Government have been generous, so if we did not know anything now there would be something radically wrong somewhere. We have been at the work a long time and have found many of the answers regarding the Sockeye and as to what should be done. At the present time we have reached the point of rehabilitating the equivalent of about 56 per cent of the 1913 catch.

The Hells Gate Canyon problem has been solved. It was solved by building fishways through it—not fish ladders, but fishways—at a cost of $2 million, of which $1 million was paid by the United States and $1 million by Canada. I might say that the installation of those fishways forms the basis of a real story. It took us some years to find out just why the salmon were blocked from going through the canyon. What was the reason, we asked? Well, we found out that when the water in the canyon was at a height of 140 feet the salmon could go through on their own, but when it rose above 140 to 152 feet or more the result was the same as if you dropped an iron gate across the river—not one fish could get through. So we built fishways along the walls of the canyon in order that when the water rose to 140 feet and upwards to 152 feet the fish would be able to find an easy passage through the fishways. A series of baffles was constructed so as to cut the velocity of the canyon waters from roughly some 25 miles an hour to 7 or 8 miles an hour in the fishways.

The fishways are 40 feet high and 60 feet wide, and one of them is 260 feet long. If