

One theory, and this theory seems to have a lot to support it, is that the big year of the past was due to the fact that in some of the very early days a great slide came from the mountain into that canyon and blocked the fish from getting up any farther that year. As a result, four years thereafter, the run had to depend on the spawning areas below Hell's Gate, which are not more at the outside than 25 per cent of the whole.

*By Mr. Neill:*

Q. You said the big year. You mean the small year. You said that the big year was caused by the slide, it was the small year.

*By Mr. Brady:*

Q. Please give the year.—A. The big year was an odd year, 1905, 1909, 1913, and so on. I am just getting at one theory so that you will have the picture of it before you as to what caused that big year and the off-years. I am corrected by Mr. Neill, and I thank him. One theory is that it was caused by a slide from the mountain into the canyon which prevented the salmon getting up that year to the spawning areas above so that four years hence the run depended on the restriction of the spawning areas below Hell's Gate, which are not more than 25 per cent of whole.

The next year the effect of the water would possibly remove some of that obstruction; the third year more of it. These three off years were in that progression, in any event, a smaller one, a larger one, and then a little larger one, and by the fourth year it had all been cleared out, so that in the fourth year it was an unobstructed one.

*By Mr. MacDonald (Cape Breton South):*

Q. Why should that continue right along from that time to this?—A. Because the Fraser River Sockeye is a four year fish, so that the fish of any year dying after it spawns will affect the run four years thereafter.

Q. Would it not apply the same in any year?—A. This has occurred year by year. 1901 was a big year, 1905 a big year, 1909 a big year and 1913 a big year, and through all years the same.

*By Mr. Sinclair (Queens):*

Q. This obstruction was removed altogether.—A. I do not think I made myself clear. The theory is that a slide from the mountain came into that canyon, and it took, if you like, three years for the water to wipe it out.

Q. Have those obstructions been occurring every four years?—A. Oh, no. It would be one year permanently. I should have made one other statement to make this clear. The sockeye salmon—and most salmon—has the characteristic of going back to spawn in the area in which it was hatched, so that those fish that were hatched in those off years below Hell's Gate would not have instinct when they were coming back to go back above, so that while the obstruction was out the fish just would not come.

The CHAIRMAN: This obstruction was made when they built the Canadian Northern Railway.

The WITNESS: This I am speaking about is one that occurred several hundred or a thousand years ago. That is, it was there when we knew the fishery. That condition existed when the fishery began. There were these three off years and the big year.

When the fishery began it was started on the Canadian side of the Fraser River. That was about 1876, I think, and it was not a large fishery as the demand was not great. But there were plenty of fish for all requirements in the