

Lieut.-Colonel  
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262. I am talking of a matter of fact, not of the number of months; I mean when the earth is so frozen that you cannot plough it; can you say that the winter on the Saskatchewan is shorter than the winter at St. Petersburg, or longer, giving you that as a datum?—I cannot answer that question.

263. If it is not longer, and St. Petersburg is habitable, and covered with a vast population, this territory might be covered also?—St. Petersburg has a seaport to supply it, and it has productions of various kinds which have a commercial value; this region not only has no seaport, but it is about 700 or 800 miles from one, to be reached by a very difficult navigation, leading not into the Baltic, which has its outlet to the south, but into Hudson's Bay, which has its outlet to the north, and which is only navigable for about three months in the year; those are essential differences in both the physical and commercial conditions of the two regions.

264. Is the Baltic at St. Petersburg navigable for more than three months in the year?—I apprehend that it is navigable for seven or eight months; I speak under correction.

265. Sir John Pakington.] You mentioned the difference in climate on the western side of this great district as it approaches the Pacific; can you give the Committee any idea of the extent of that difference, either the extent geographically to which it prevails, or the degree to which it prevails?—I should be unwilling to speak from memory upon such a subject, because it is one which must be brought to figures; I could easily ascertain the facts as far as data exist for doing so, but I would not venture to speak from memory.

266. Is the difference a marked and decided one?—Unquestionably so; it meets you everywhere in America, that the further you go to the westward along the same parallel of latitude, you come to a milder climate.

267. Mr. Roebuck.] Is that the case on the east of the Rocky Mountains?—It is so in the southern latitudes.

268. Sir John Pakington.] To what cause do you attribute the difference in climate?—It is difficult to give an answer to that question directly. The prevalent winds in the region beyond the tropics have a great influence upon the climate of the countries which they pass over. You find that the prevalent winds in the extra tropical region being from the westward, those winds bring from the Pacific Ocean a large quantity of moisture, which moisture has a tendency to ameliorate the climate of the regions which receive its first benefit. As they proceed further to the eastward they lose a portion of that moisture, and pass over regions, frozen or covered with snow through a large part of the year; they come down to Canada more severe, of course, and charged with less moisture, and actually colder by having given up latent heat to the regions they have passed over, than nearer to the west.

269. What are the prevailing winds on the eastern side of this part of America?—I should be glad to reserve my answer to that question because I should wish to speak with accuracy. The prevailing winds, on the whole, are westerly; they are rather from the western semicircle than from the eastern. I believe they are north-westerly.

270. How far to the westward have you penetrated?—Nearly as far as the Rocky Mountains, but not over them. My limits westward were Dunvegan, on the Peace River, and Edmonton on the Saskatchewan.

271. Do you attribute the power of producing barley so far north as Fort Simpson to that comparative neighbourhood to the Pacific to which you have referred?—In a very great degree I do.

272. Can you state what is the general difference in climate between Fort Simpson and these other settlements in the neighbourhood of Lake Winnipeg?—The difference of mean summer temperature between those two regions I believe to be but little; but I am reluctant to speak with precision upon these points, because if they have value at all, it is as scientific facts, and I confess that I am not sufficiently armed with them at this moment, to be able to be positive.

273. Fort Simpson has, of course, a much severer climate, I presume?—Very much severer, taking the year round.

274. You spoke in the early part of your examination of the district which you were then speaking as being permanently frozen, so that the crops could not be grown; to what part of this district did you apply that expression, of  
“permanently