by R. T. Graham. Dated Keithley Creek, B. C., March 5, 1907. I am living at a stock ranch in the Bonaparte Valley—which lies about midway between the Cascade and Gold Ranges and the Rocky Mountains—north of Ashcroft, on the line of the Canadian Pacific Railway. 1 Our district is known as the "dry belt." Very little or no rain falls during the spring or summer. We depend upon irrigation for our crops and hay, and my experience of the chinook is as follows:

After having a cold snap of zero weather, with a foot of snow on the flats and hillsides—bright clear weather—there comes a change; heavy dark cloudsloom up from the west and southwest, accompanied by a very strong wind—at times one might call it a gale. No matter what the temperature previous to this change (40° below zero, or anything), within a few minutes the air becomes balmy as spring—by contrast it seems hot. I have known the thermometer to rise 50° in five minutes. When we have this wind, one can read in the daily papers of shipping disasters and storms off the Vancouver Island and Washington coast. Heavy rain and snow [occur] west of the Cascade Mountains, but I find no account of the temperature being so high west of the Cascade Mountains as with us.

As to the dryness, our house lies in the valley. The Cariboo wagon road is some feet above the house, and the ground rises at an angle of 30° to the first hill. Then in a series of benches to timber. The curious phenomenon [may be noted] of having one foot of snow as it were sucked up from off the ground (the ground being frozen to the depth of several inches). In three or four hours not a vestige of snow may remain, and yet not a trickle of water crosses the road. As the ground is frozen, therefore the idea of absorption in the ground is untenable; the water does not run off. Is not the air heated by friction, so that the intense dryness of the wind evaporates and absorbs the moisture?

We never have a chinook in winter accompanied by clear weather, but always dark, stormy-looking clouds, and they rarely last more than three days.

We are much interested in these same chinook winds. This winter I have been at Keithley Creek managing an estate. On the flat the snow was 5 feet deep; on the Bonaparte the snow was 18 inches to 2 feet deep; and all cattle had to be fed—a serious item with a big band of cattle. Usually we need only to feed range cattle once in seven years, our fenced-up winter pastures being fully sufficient, except for a few sick cattle. So when we have a heavy fall of snow and zero weather our sole ambition is for a chinook; and there is no doubt whatever when it does come—we never forget the accompanying atmospheric conditions with us at the ranch, or on the seacoast.

As a rule the barometer drops when strong winds and rain are coming. Is this because of the denseness of atmospheric pressure, accompanied by the dampness or moisture in the atmosphere?

Do you think the barometer will act the same with a gale of wind accompanied by heavy rain, as with a gale accompanied by the heat of a chinook when a dry atmosphere absorbs the moisture from the snow on the flats and steep hillsides with practically no waste?

1 This description places him in latitude 52° 45' N., longitude 121° 45' W., approximately.—Editor.