

THE CHINOOK WIND.

THE winter climate of the strip of tableland and prairie lying just east of the Rocky Mountains is far milder and more varied than that of Manitoba. Except British Columbia, it is the only part of Canada where horses and cattle can shift for themselves, and yet come through the winter in good condition, and this is owing mainly to the warm westerly winds called chinooks.

After a longer or shorter siege of intense cold a change comes. A long, strange bank of clouds rises over the mountains and advances towards the plains, and suddenly out of the passes blows a strong, warm wind, a beneficent fairy from the mild Pacific, sweeping away the snow with its magic wand, and sending the mercury up fifty degrees in an hour or two. Smiling spring wrests the sceptre for a time from cruel winter. As one recedes from the mountains, however, the effects of the chinook grow less and less perceptible, and are at length entirely lost. As one advances up the passes, also, the west wind, which blew violently at the mouth, gradually loses its force, and well up among the mountains is no longer felt as wind, though a peculiar mildness of the atmosphere indicates its passage overhead.

Since the wind from the Pacific must cross three or four hundred miles of intensely cold snow and glacier-covered mountains, many have thought it impossible that it should still have warmth enough to melt the

snow when it reaches Calgary or McLeod, and have looked for some other explanation. There is no doubt, however, that the chinook does cross the mountains and issue from the passes, so that no explanation can be accepted which does not accord with these facts.

A little thought on the physical properties of gases makes the matter clear. It is a well-known law that heat is rendered latent when gases expand, and may be recovered when they are compressed. By compressing air powerfully under a piston, heat enough may be set free to set fire to tinder.

The warm moist winds from the Pacific sweep up against the mountains, are milked of their load of moisture by the icy summits, and thus gain the latent heat of the watery vapour, which falls as snow. They grow rarer and rarer as they rise above sea-level, and become correspondingly colder; apparent heat becoming latent and serving to keep the molecules of air asunder. When the mountains are crossed the air descends, is condensed, and giving out the heat which had been latent, becomes once more a warm wind.

The west wind which blows keen and icy on the mountain tops, by sinking a few thousand feet becomes balmy and springlike. The very same air which is below zero at the summit two or three hours later is thawing the snow on the plains and uncovering for the cattle their winter pasture.—*V. P. Journal.*

GEORGE DICKSON, M.A., for several years the successful Principal of the Hamilton Collegiate Institute, has been appointed to the principalship of Upper Canada College. Mr. Dickson's energy, administrative ability

and experience as a practical educator will be of great service to the school over which he has been called upon to preside. We wish him and Upper Canada College long life and great prosperity.