

familiarly calls the "Nor'-wester" and the "Sou'-wester," and can tell by the sky when either is coming. After days of calm weather in summer time when the great mountains—the western fringe of the Southern Alps—are robbed of their white snow robes, and the only sign of ice is a gleam of silver in the high gullies, when even the foothills are deeply purple, then a misty haze like the quiver of heat steals over the highest peaks, and a distant murmur that grows in volume comes with a faint warm puff of air. Dark smoke-like clouds issue from the mountain gorges, and the murmur grows into a roar. A stranger, proud of his observation, might say laconically, "Bush fires and a thunderstorm. How plainly one can see the effects, though those mountains, must be half-a-dozen miles away." The listener (if he knows the country) may laugh and reply, "Why, those mountains are thirty miles away from us. The thunder you hear is the wind in the gorge, that cloud is sand and dust, not smoke. It is only a Nor'-wester coming, just when I don't want it. It will blow big guns by two o'clock." Great white clouds in solid masses hang like an arch of marble over the mountain range, and the sky beneath the roof of the arch and the crest of the mountains is brightly, intensely blue. The dust clouds pour from the gorges, the murmur develops into a thunderstorm roar. The Nor'-wester is already at work amongst the hills, tearing up sand and stones from the river beds, scooping holes even in their terrace banks, hustling the lonely shepherd as he clings to tufts and shrubs and drags himself slowly homeward. Then it bursts over the plains, powerful, invisible, grandly free. The long tussocks bend in wave after wave. The trees planted by the settler to shield his home from this very wind, creak and bend before its fury. Though coming from the high mountains, from glaciers and fields of perpetual snow, the Nor'-wester is generally hot and dry. Even in winter time, when the mountains are clothed in snow from base to summit, this wind, though coming direct from them, is warm. This is

the cause of the sudden floods in our great rivers. After weeks of rain they might not be swollen a single inch, for the rain on the plain turns to snow on the mountains, and there it may lie until a Nor'-wester comes. But then there is commotion on the highlands. The snow melts with wonderful rapidity, the rivers rise in a single night, and send rocks and stones rumbling down their beds that go to swell the plain. So it has come to be a saying of Canterbury rivers, "In wet weather they are dry, and in dry weather they are in flood." Occasionally, though the blasts of a Nor'-wester follow one another with great rapidity, they vary several degrees in temperature. A blast may feel warm for a second or two, then it comes almost cold, then warm again, and alternately warm and cold for hours, the change of temperature being sudden and sharp as a gun flash. When the Nor'-wester has decided to blow for a week or two it gets into the habit of taking a rest in the evening, dropping to a calm about sunset in order to blow with redoubled force again about midnight. When once settled into this habit it may keep on for a month, and then people exhaust what little energy it leaves them in abusing it. It is curious that a wind coming from regions of ice and snow on the mountains, or even from the altitude that the mountains reach, should be warm, and several theories have been originated to account for the phenomena. It is commonly supposed that the wind comes direct from the burning plains of Australia and from tropical latitudes, leaves the moisture gathered during its ocean voyage on the western slopes of the Southern Alps, and retaining its heat, rushes down the eastern side of the ranges actually warmer than it was in Westland. The Nor'-wester may come from Australia, hot winds are at a discount there, but if it came from the infernal regions it must be reduced in temperature if it rises over those great mountain ranges where a thermometer would be rarely above freezing point and frequently below it. The Southern Alps, the mountain backbone of New Zealand, run