

by the heavy "glance" erbs or "split fences" planted on the mountain side above the line, which serve to divide the avalanche, sending it flying over the adjacent sheds. Now and again the "glance" erb does



A CANADIAN PACIFIC RAILWAY ROTARY
SNOW-PLOUGH AT WORK

Note the stream of snow being thrown to
the side.

not fulfil its avowed purpose completely, so that the open part of the line becomes choked, if not damaged, but such incidents are comparatively uncommon; the "split fence" seldom fails.

Nature appeared to resent the ingenuity of the engineer at the onset, since the line scarcely had been opened when it was subjected to an unusually savage assault during the winter of 1886-7. The snow-fall was terrific, 8½ feet falling within a

week, while for three weeks it snowed incessantly. As a result the avalanche season was unduly lively, and the rumblings and groanings, roars and crashes, of the moving masses were continuous night and day. The conditions on the Selkirks are somewhat peculiar. There may be a heavy snow-fall. Then comes a warm spell, as the chinook wafts over the range, accompanied by heavy winter rain storms. The snow is half-melted, when a sharp spell of severe frost sets in, converting the slushy mass into ice. The line was opened for traffic before snow-shedding had been completed, and as a result many of the open stretches of side-hill excavation became filled with the debris of avalanches. When the frost gripped the debris the snow-fighters had a harassing time. Picks and shovels made no impression—the heterogeneous mass of snow, earth, rock, ice, and timber had to be blasted out in big chunks, and several days elapsed before a passage 40 feet deep, and just wide enough to admit the trains, was driven.

Yet despite all the precautions which can be taken, the snow-plough at times comes to grief, being either crushed under the terrific weight imposed or carried away and ground to splinters. Rocks and timber in the snow are responsible for this destruction as a rule. They tear an opening in the road, when the moving snow secures a purchase upon the structure, wrenching it to pieces. The imprisoned air also plays sad havoc in such cases. Unable to escape, and becoming heavily compressed, it exercises a terrific bursting strain upon the artificial tunnel. The timber creaks, groans and bends until it cannot withstand another ounce of pressure. Then it flies, with a crashing report. Widespread damage is inevitable, and the engineer anticipates a long ding-dong battle against time in his effort to restore communication.

The capriciousness of the avalanche is extraordinary at times. On one occasion a slide swept down a steep slope from a