AVALANCHES AND SNOW SHEDS.

SNOW slides are among the dangers to be encountered in operating railroads through high mountain passes. Early in its history, the Central Pacific road learned that it would be impossible to keep its line open for traffic in the winter season, unless it were protected from avalanches, which either swept it away entirely, or buried it beneath a mass of snow, timber and rocks, which required much time, labor and expense to remove. Long stretches of snow sheds, constructed of heavy timbers secured together by iron bolts, were built at the most exposed places, over a stretch of forty miles of track, the sheds costing an average of $10,000.00 per mile. Happily, the Northern Pacific and Oregon Short Line have but a small portion of their lines exposed to these destructive avalanches. The Canadian Pacific, however, is not so fortunate. In the Rocky and Selkirk mountains, there are many miles of track exposed to their ravages, and the company has been compelled to erect many expensive sheds for its protection. One of these snow slides is a grand and terrible sight to witness. In the depressions between the mountain peaks, the snow accumulates until something starts the mass downward. It slides slowly at first, gathering speed and volume as it goes, until, at last, it rushes down the steep slope with enormous momentum and great velocity, carrying rocks and trees with it, and carving out a deep channel in the mountain. Down into the valley it rushes, across it and up on the other side until its force is spent. At one point on the line, a year ago, an avalanche two hundred feet deep struck the track and carried it down the mountain, across the valley and up the other side, opposite its former position, and there the disjointed track was found when the snow melted in the spring. One can imagine the fate of a train which might unfortunately stand in the pathway of such a snowy giant. Snow sheds are so constructed that the one-sided roof will slant upwards at the same angle as the mountain, to which it is firmly secured. By this means, the avalanche is guided on its way, so that it passes over the track and down into the valley without doing any damage whatever. In order to withstand the shock and bear up the enormous weight of snow, these sheds must be as strong as wood and iron can make them. To construct one mile of shed, requires more than six million feet of timbers, sixty-two thousand bolts, thirty inches long, and two hundred thousand spikes, ten inches in length. In the engraving on another page, the artist has given a graphic picture of one of these tremendous slides, as it is carried, by the shed, over the top of a passing train. Thanks to these staunch protections, travel in the mountains is now as safe as on the plains, so far as danger from snow is concerned. Those portions of the track not exposed to snow slides, are cleared of the snow which falls and drifts upon them, by huge snow plows. With the sheds and the plows, at great expense, the roads are kept open through the mountains during the winters, only being occasionally blockaded for a few days, when some storm of more than ordinary severity defies the greatest efforts to maintain a clear passageway for the trains.