

*Saw Filing*, by Robert Grimshaw (New York: John Wiley and Sons, 1883).

This handy little book is designed as the preface tells us, "as a practical aid to those who use saws for any purpose," and is evidently compiled by one who has had considerable experience in the subject with which he deals. The illustrations are carefully executed and the directions are always clear and to the point.

## OUR NORTH-WEST RAILWAYS.

BY ANDREW F. DRUMMOND

The year 1882 has been notable for the extent to which railways have been constructed in Ontario and the North-West. In Ontario, the Canadian Pacific Railway has been continued to the north side of Lake Nipissing and thence westward towards Algoma Mills; the Canada Atlantic has been completed to Ottawa, forming a new route between that City and Montreal; and the Toronto and Ottawa and the Ontario and Quebec Railways—almost parallel lines for a considerable distance—are under rapid construction; the objective point of each presently being Perth, but the ultimate aim of the Ontario and Quebec Railway being to open between Toronto and Montreal, *via* Ottawa and in association with the Canadian Pacific Railway, a rival route to the Grand Trunk Railway. On the Canada Southern, Kingston and Pembroke, and other lines, some extensions have also been made, but, in each case, the additional mileage has been inconsiderable.

However marked railway construction may have been in Ontario, it has been far outstripped in the North-West Territory during the past summer. It was to be expected that with the natural facilities which the character of the country afforded, grading and track laying would, as on the the prairies of Minnesota, Dakota, and Iowa, be quickly accomplished, but few last spring would have been prepared for the announcement that the main line of the Canadian Pacific Railway, which at this time a year ago, was open to Brandon, about 150 miles west of Winnipeg, would have at the close of 1882 its terminus within sixty miles of the South Saskatchewan, or 586 miles west of Winnipeg. The rails are now laid to that point and the grading thence to Leopold, the new town at the crossing of the South Saskatchewan, is well under way. As many as four miles of track laying have been accomplished in a single day. This enormous amount of work has only been overtaken by conducting the operations under a most perfect system. A small army numbering over ten thousand men and horses had to be lodged, fed, and kept at work by the contractors, and that in a country where no supplies were to be had within 450 miles. During the months of August and September the graders had to be sufficiently far ahead of the track layers to permit of the latter laying an average of two to three miles per day. To accomplish this, a vast commissariat department had to be established, depôts formed, and supplies of provisions and forage sent regularly forward to the front, whilst to keep the track-layers at work, trains with all the requisite rails, ties and fastenings for the mileage of track to be laid each day, had to be systematically despatched beforehand from Winnipeg.

This, however, is but a part of the Canadian Pacific

Railway work in the North-West during the past year. They have laid 115 miles of track on their South-Western branch, trains actually running now from Winnipeg to Manitoba City *via* Morris: 22 miles have been graded and are ready for the rails on the branch from Selkirk to Winnipeg on the west side of the Red River, while sixty miles of sidings on the main line, and three on the South-Western branch have been completed. These give a total of 635 miles of railway built by this Company during the year in the North-West alone. And yet this represents but a portion of the vast expense involved in the construction of the railways there. The whole line has been fully equipped with locomotives as well as passenger and freight cars, and extensive engine houses, repair shops, and freight sheds have also been built. Indeed, whatever opinion we may entertain of the contract obtained by the company and of the Government policy in entering into such an agreement, we cannot detract from the energy displayed in carrying it out.

Before the divide at the Kicking Horse Pass in the Rocky Mountains can be reached, 390 miles of further track have to be laid by way of Leopold, Calgary and the headwaters of the Bow River, and it is proposed to cover that distance next year. The belief is further entertained by the Company's engineers that from the summit at Kicking Horse Pass a feasible line has been obtained to the Columbia and thence down that river for some distance, when the Selkirk Range is crossed and Kamloops reached by way of Shuswap Lake. From Kamloops the line is already under construction along the Fraser River past Lytton and Yale to Port Moody on Burrard Inlet.

Whilst numerous charters have been obtained both from the Dominion and Manitoba legislatures for railways in the North-West, the Canadian Pacific, Manitoba South-Western, and Portage, Westbourne and North-Western Railways have alone reached the point of active construction. Two other railways have had the promise of considerable Government land grants, namely, the South Saskatchewan Valley Railway, whose projected route is from Qu'Appelle to Prince Albert, and the Souris and Rocky Mountain Railway, which, it was proposed to run from a point near Brandon on the Canadian Pacific Railway to Battleford but in neither case have steps been taken to commence construction. A mile or two of grading at West Lynne has been done by the Emerson and North Western Railway Company in the hope that the Grand Trunk would espouse the cause of that road, but the Government at Ottawa having disallowed the charter and the Grand Trunk not being as yet disposed to meddle actively with Manitoba Railways, the work has been entirely stopped, though it may be continued by the Canadian Pacific in forming a loop line from their South Western branch to Emerson.

The Manitoba South Western Railway has recently changed hands in so far that the interest of the Villard party in it has been sold to the Canadian Pacific Syndicate. This railway starting from Winnipeg runs due west to Headingly, where it crosses the Assiniboine River and takes a course south westerly to near Carman, a distance of fifty miles from its starting point. The rails are laid for the whole of this distance but all work on the line is in abeyance at present, pending rearrangements resulting from the recent partial change of ownership.