or such other space as the Engineer may direct according to the season. The Contractor shall accurately straighten all bent rails, and shall oil and run down any bolts and nuts which may require it before making use of them. The rails will require bending for the curves. This, as well as the straightening of all bent rails shall be effected by a press. In all cases, whether of straightening of bent rails or of bending rails to the necessary curves, the rails shall be set permanently to the form required before being laid, and no temporary bending, springing, or straightening, either by dragging with a lever and hook, or by any other means, will on any account be permitted. Rails for curves under 10 chains radius are to be bent to a template, and any which may have been bent too much for the curve required shall be reduced to the correct curve before being laid.

Sleepers.—Ordinary sleepers shall be of heart of totara, matai, or other approved timber 7 feet long, 8 inches broad, and 4½ inches thick; they are to average about 2,000 sleepers per mile, spaced as directed. The rail seats are to be accurately adzed to a correct bevel, and holes for all fang-bolts and spikes are to be bored with augers of suitable sizes, to prevent the sleepers from splitting. All sleepers on bridges shall be securely spiked down, and fitted true to level or cant; all stringers on cattle-stops shall be adzed to a transverse inclination of 1 in 20, and set to the correct level before the rails are spiked down. Great care shall be taken to lay all the sleepers square to the rails on straights, and as near as may be on curves. Where the line is straight, the rails will be level across the line; but where the line is curved, the rails will be canted, the difference of level between the two rails being such as the Engineer shall order.

Lifting.—As the ballast is deposited, the rails shall be lifted out of the ballast not exceeding 3 inches in any lift, nor less than four pairs of rails to be lifted at once, and the ballast shall be packed under the sleepers as the lifting proceeds, until brought to a correct level. When a length of 10 chains has thus been lifted and has been consolidated by the passage of vehicles, the line and level shall be adjusted. This adjustment of line and level shall be repeated as often as, in the opinion of the Engineer, is necessary: and before the final certificate is given the whole line shall be gone over, and the rails shall be adjusted for line and level, and any deficiency in quantity of ballast shall be made good according to plan. In order to keep the sleepers square to the line on curves, the Contractor shall cut as many rails as necessary, so that the lead of the joint shall not exceed 2 inches, and shall drill new holes for the fishbolts.

Injured Materials.—No injured materials of any description shall be laid in the permanent way unless with the express permission of the Engineer.

Subsidence.—Where the Engineer has considered it necessary to provide for subsidence in soft ground by raising the formation level, the rail level shall be raised thereon with the specified amount of ballast, and the gradients joined and made good in a proper and workmanlike manner.

Changes of Gradients.—The changes of gradients shall be made by a gradual curve, extending at least 3 chains on each side of the change.

Contractor to supply Templates, Tools, and Gauges.—The Contractor is to provide and have upon the ground, at all points when the work is proceeding, a sufficient supply of all such templates, tools, gauges, and other implements as are necessary and are usually required in the aying of permanent way, or as may be required by the Engineer.

Use of Permanent-Way Materials by Contractor.

19. Permanent-way materials shall not be laid down or employed within 100 yards of the face of any excavation or the end of any embankment, nor used for hauling earthwork before the ballast is laid. When the Contractor shall have complied with the above requirements, he may use the rails and other permanent-way materials for the purpose of hauling earthwork or materials on parts of the line.

Stations and Sidings.

20. The Contractor shall construct stations and sidings at Waipahi, Conical Hills, Pomahaka, Gore Road, Tapanui, and Kelso, as shown on general plan, including the necessary earthworks, approaches, roads, metalling, culverts, drains, pipes, permanent-way, points and crossings, crossings, and all sleepers, ballast, and other works. Except where otherwise directed the grades and levels of the sidings shall be the same as those of main line adjoining, and the work of laying the sidings shall in all cases be the same as specified for the main line. The space between the sidings and the main line shall be formed and ballasted up to the level of the top of the sleepers.

Use of Rolling-Stock.

21. The Minister will furnish the Contractor with a locomotive and 12 wagons for ballasting this contract; but the Contractor shall pay the wages of the engine-driver and stoker (who must be approved by the Engineer), and shall furnish fuel, water, oil, grease, waste, &c., at his own expense. The locomotive shall be washed out every week, and thoroughly overhauled at least every month, the axle-boxes and other bearings examined, and any defects in the brasses made good when found to be necessary. Every wagon is to be lifted and axle-boxes examined not less than once in each month, and wheels gauged at same time. The Contractor shall construct a convenient building for sheltering the engine when not at work.