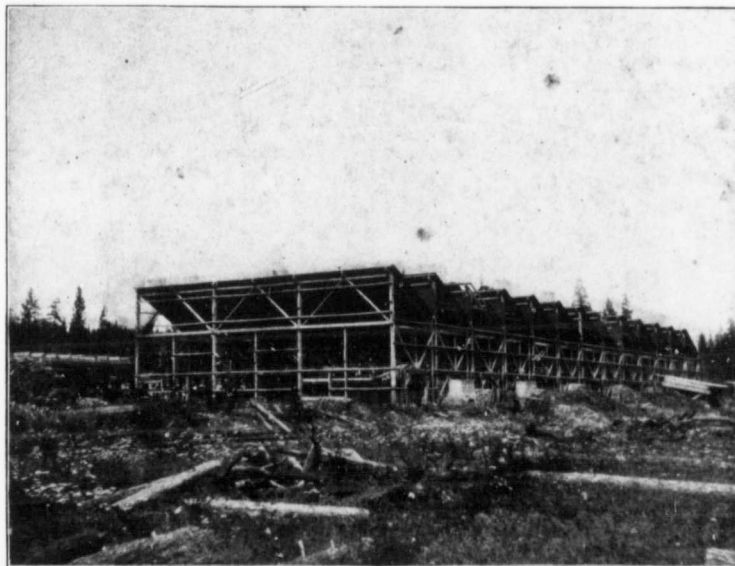


depressed condition of the lead market and other causes have prevented the completion of the plant, which stands today in a half-finished condition, exposed to the weather and rapidly deteriorating, a fact much to be regretted, as a slight expenditure would protect the plant and machinery in place until such time as the work is completed. The smelter bears evidence of having been constructed on designs of different people, and is, consequently, not entirely consistent. To be completed and rendered economical to work, it would require to be largely remodelled, but this could be done at no great expense, as much of the material and plant are very good, and suitable for the purpose intended.

**SMELTER SITE.**—The site chosen for the smelter is a large flat or bench, from which the ground

to the charging floor of the furnace shed by wire rope aerial tramway, the charge being dumped and mixed on this floor. The fuel and fluxes were to be dumped from railway cars standing on a trestle 8 to 10 feet high into bins on the ground level, and thence taken to the furnace shed by aerial tramline. The plant, as far as completed, was erected under the supervision of Mr. L. S. Austin.

**ASSAY OFFICE.**—The assay office is a one-story wooden building, clapboarded and with shingle roof, and is divided into a furnace room, in which there is a brick, muffle furnace for two 10-inch muffles, fired with coal from the next room, and the sampling room, off which there is a coal bin. From the furnace room a door opens into the "wet" or analytical room, and from each of these a door opens into a small but com-



Marysville Smelter, Fort Steele Mining Division—Calciner Sheds.

drops off on two sides to the river valley some 150 feet lower. The subsoil is gravel, giving an excellent opportunity for cheap but good foundations. The general scheme of the smelter, as apparently intended from the construction partly completed, is as follows: The ore was to come in on railway cars, over a trestle about 4 to 5 feet high, the level of the car floor being that of the receiving floor of the sampling plant. From the sampling plant the ore was to be delivered by buggies to a series of bins slightly elevated, and from these bins it was to be wheeled on the ground level to the calciners standing on the same level, into which it was to be shovelled presumably, as no provision for top charging was noted. The calciners were only equipped for drawing the ore into buggies, and it was afterwards to be sent

to the charging floor of the furnace shed by wire rope aerial tramway, the charge being dumped and mixed on this floor. The fuel and fluxes were to be dumped from railway cars standing on a trestle 8 to 10 feet high into bins on the ground level, and thence taken to the furnace shed by aerial tramline. The plant, as far as completed, was erected under the supervision of Mr. L. S. Austin.

**SAMPLING PLANT.**—The sampling building is about 30 by 40 by 40 feet high, and is situated on the railway siding as it enters the smelter grounds. At present little of the sampling machinery is in place other than two elevators, each running the height of the building. The plant is arranged for a very complete system of automatic sampling, and it was reported that all machinery was on the ground for its equipment.

**MAIN FURNACE BUILDING.**—The main furnace building is 96 feet long by 32 feet wide, with a lean-to along one side in front of the furnaces.