

period of sedimentation, and exposure to the light, assist in keeping this water in a continual state of purity.

Clearing.—The sides of the lake to be flooded by the construction of the dam (some 3,000 acres) were cleared



Fig. 4.—Falling Timber on the Banks of Coquitlam Lake. A Beautiful "Fall."

of all timber and underbrush, which was burned and disposed of. The swamp areas were surveyed by the writer and comprised some 255 acres; these areas were given special attention in clearing. The thoroughness with which this work was carried out is indicated by Fig. 4. The trees were eventually cut down level with the ground.



Fig. 5.—Foundation for Water Tower—4-ft. Pipe in Entrance of Tunnel. Note Solid Rock Foundation.

The clearing alone was an enormous task, and cost about \$649,289.

Sanitary Precaution During Construction of Works.

—The precautions taken to prevent the workmen from contaminating the water in the lake, or its banks, is worthy of mention and reflects credit on the officials of the Vancouver Power Co. Men working on the different gangs clearing, burning, etc., were taken to their work

in large scows, by a tug, from the camps. In the vicinity of their work were placed movable closets covered with a light canvas screen, and containing a fairly large galvanized can. These cans were collected daily by boats, removed to an incinerator situated below the dam, and the contents burned. The cans were replaced daily. Notices were posted warning men that they would be instantly dismissed if found guilty of not using the closets when necessary. Two inspectors were in constant attendance and no difficulty was experienced



Fig. 6.—Water Tower with Lake Level Raised.

in getting the men to conform to this form of discipline. Weekly examinations of the water were made.

Watershed Reserved.—The Dominion Government have recently issued an order-in-council setting aside as a reservation a tract of land comprising the whole of the watershed of the lake, thus safeguarding the city's water supply from any possible pollution by any habitations, or lumbering operations. This action has been highly appreciated by the civic authorities.

The Water Tower and Approach Tunnel.—This work was carried out entirely by the Vancouver Power Co. It will be seen from the photographs and the plans (see Figs. 5, 6, 7 and 8) that the design is of no mean architectural outline, and that it harmonizes with the surroundings. This is a case in which the engineer has appreciated the desirability of the beautifying of engineering structures and carried it out with great success. The tower is a heavy concrete structure built on bedrock on the east side of the lake, about 1,000 ft. north of the dam. The level of the floor of the tower is 428 ft.,



Fig. 7.—Water Tower, Front View.