

The portion of the canal excavated in earth will have sloping sides, the width of the bottom being 70 feet, and at the top 162 feet; the average depth of the water will be about 30 feet. The rock portion of the canal will have vertical sides with a width of 48 feet and an average depth of water of 40 feet.

The net head of water utilized in this development will be 305 feet, and the capacity of the canal will be from 15,000 to 18,000 cubic feet per second.

#### *Power House*

The power house will contain the largest turbines and generators in the world, each of the former being of 55,000 horsepower capacity, coupled to an electric generator of equivalent size.

At the present time there are 5 of these immense units on order, two of which will be delivered this year.

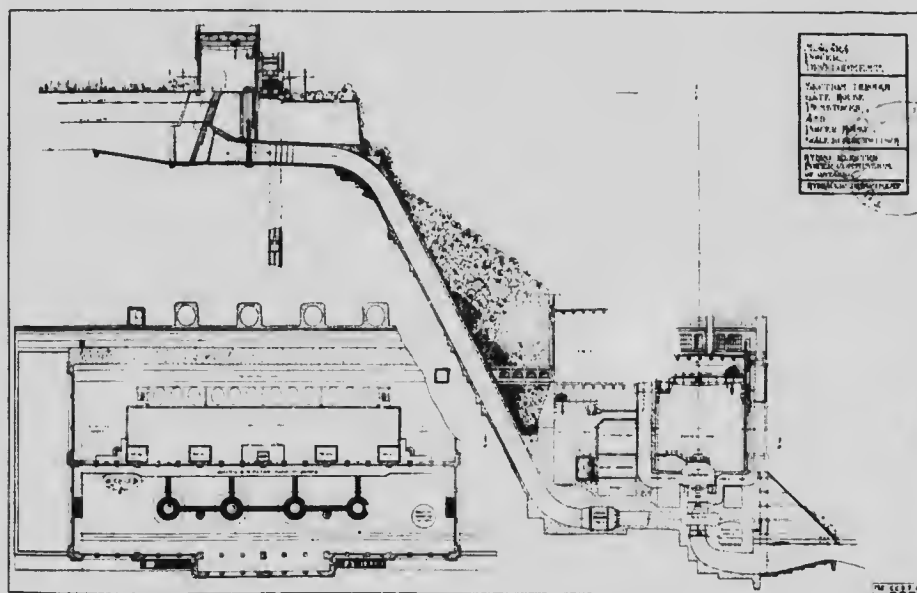
The entire project, up to an initial capacity of 100,000 horsepower will, it is expected, be completed in the Fall of

1921, and, about six months later three additional generating units will be installed, thus bringing the capacity up to 250,000 horsepower, and the ultimate capacity of the generating station will be from 500,000 to 600,000 horsepower.

#### *Construction Equipment*

Owing to the shortage and high cost of both labor and coal, it was decided to make the utmost use of labor-saving devices and electrically operated equipment is being used as much as possible.

For the work of excavating, there are in use 7 electrically operated shovels. Three of these are the largest in the world, being considerably larger than the shovels used in the construction of the Panama Canal; they handle an eight cubic yard bucket for earth, and a five cubic yard bucket for rock; motors aggregating no less than 750 horsepower are required to operate each; they weigh over 400 tons each, and have a capacity, when used for excavating earth, of



*Section Through Gate House, Penstocks and Power House*