

1887, a permanent Board of Directors was formed, comprising the following gentlemen: President, Capt. John Irving; Directors, The Hon. (now Sir) Joseph W. Trutch, Messrs. R. P. Ritchie, G. A. Keefer, Thomas Earle, and D. M. Eberts; Mr. J. W. McFarland was appointed Secretary; Mr. D. M. Eberts, solicitor; Mr. G. A. Keefer, M. Can. Soc. C.E., chief engineer; and the writer, Mr. H. B. Smith, M. Can. Soc. C.E., engineer in charge.

THE RIVER CAPILANO.

The River Capilano is a mountain stream of considerable magnitude. Prospectors who have penetrated its cañons, and claim to have reached its source, estimate its length at no less than fifty miles. It rises in the snow-covered mountains of the Howe Sound district, and flows almost due south, emptying into Burrard Inlet at the First Narrows.

Although nothing definite is known as to its source, all accounts agree that its origin is not a mountain lake, but the accumulated waters derived from melted snow and ice falling from the mountain summits. For a distance of seven miles from its mouth, the river has been surveyed. Throughout this distance it flows at the average rate of five feet per second over a bed of granite, basalt, and conglomerate boulders. Sand and gravel can be found only in a few sheltered bays. It passes through several cañons of granite and whinstone rock, one of which is only 15 feet wide at its base, 94 feet wide at its top, 500 feet long, and 218 feet deep. Previous to the creation of this cañon, the whole valley to the north must have been one large lake. The wall of rock through which the stream penetrated ages ago, by some sudden effort of the earth's hidden forces, stands like a huge gate at the south end of the valley, the valley itself being but a strip of flat land from 1,000 to 1,500 feet wide, lying at the base of two parallel ranges of mountains, which tower upwards to a height of 3,000 feet. The fall that took place when the river flowed over the summit of this rocky wall must have equalled the Niagara of to-day for depth, if not for volume. Should the City of Vancouver increase to the magnitude predicted, it may be that its people at some future day will cause a dam to be constructed across the narrow gorge, and once again convert this valley into a lake. Vancouver will then possess a reservoir from whence to draw its water supply, which will not be surpassed by any waterworks system on the continent. These cañons are isolated, standing about a mile apart. Between them the river flows through low lying flats, forming many islands. The immediate banks are but a few feet above the level of the river, and from 100 to 200 feet in width, the ground on each side rising in terraces until it is merged in the uniform slope of the mountains. Both sides of the river are heavily timbered with the huge trees peculiar to the British Columbia coast, Douglas fir, cedar, hemlock, spruce, balsam and white fir being in abundance. The Douglas fir and cedar grow to an enormous size. One cedar in particular was measured by the writer, and found to be 64 feet in circumference, 4 feet from the ground.

As a source of a city water supply, the River Capilano is an ideal one. No purer water can be obtained from any source than that from this mountain stream, flowing swiftly over a boulder bed, through deep rocky cañons, and along shores as yet uncontaminated by the impurities which follow in the wake of settlement. The supply afforded, being by gravitation, is superior to all other methods, whether by reservoir, direct pressure, or stand pipe, and its permanence is beyond question, careful gauging of the river at the initial point of the system having demonstrated the fact, that at the lowest stage of water the river discharges 440 millions of gallons in 24 hours.

CLEARING, CLOSE CUTTING AND GRUBBING.

The first contract entered into by the Company was for clearing, close cutting and grubbing. This work was done by a local firm at the following prices: clearing, \$59.00 per acre; close cutting, \$95.00 per acre; grubbing \$200.00 per acre, under the conditions of the following specification:—

The pipe track is to be cleared a width of not less than 33 feet, and all timber and brush, not required for the purposes of the work, piled up and burned, as in clearing land for cultivation.