The Romance of Rocky River
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of
ROCKY RIVER

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"Men may come and men may go,
But I go on forever."

—TENNYSON.

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ROCKY RIVER would have gone on forever, to no avail, had not the far-sighted engineers of The Connecticut Light and Power Company decided to make it useful to man; to harness its restless waters; to provide posterity with light, heat and power from its once turbid, turbulent stream.

This is the Story of the Romance of Rocky River.

For a thousand years—or perhaps a million—a little unostentatious stream has been wending its way through hill and dale, field and bog; carelessly, unwittingly. Its sources, of which there are several, are amidst the lower Litchfield hills of the Berkshire range. Through little hamlets and farms it has ceaselessly, uselessly slipped along, until it finally joined its big brother, the Housatonic River, near New Milford.
The Rocky River is about to become a beautiful lake, the largest in the State of Connecticut. It will be partly in five towns—Danbury, Brookfield, New Fairfield, New Milford and Sherman, near the New York state border.

Some twenty years ago the project to develop a hydro-electric plant on the Rocky River was conceived. The state legislature granted authority to carry it out. Water and property rights have been gradually accumulated since that time.

Today the site of the Rocky River, is the scene of great activity. Huge steel and concrete structures are being erected. An immense earthen dam is nearly completed. A great canal more than half a mile long is nearly finished. Great cranes, 110 feet long, swing back and forth. Gushing water flows through great pipes. Rivetting machines rend the air. Piles of steel, lumber, sand and pipe appear here and there. Automobiles, trucks, tractors, horses and wagons throng the by-ways.
Here also exists a miniature village housing 600 persons, created solely as an abiding place for many of the workmen and engineers on the job. It is a construction camp, but a well-equipped and well-ordered one. Temporary streets have been laid out, with names. Sewers, water supply, steam heat and electric lights exist, as well as many other comforts and conveniences, such as shops and a branch banking establishment. A large mess hall is utilized to feed the men. Dormitories house the laborers and some smaller buildings are called “home” by some of the technical men.

Actual construction started in July, 1926, when several carloads of machinery and tools were unloaded along the banks of the Housatonic River at a point about two miles north of New Milford. The work will not be completed before the spring of 1928, and it is estimated that it will take two years for the newly made lake basin to fill up.

This project, the effect of which will be to add about 40,000 kilowatts to the Company’s generating capacity, involves the erec-
tion of a huge dam, stopping and storing the water of the Rocky River and tributaries into an immense reservoir, and conducting this water at will through a canal, a penstock and hydraulic turbines which, hooked up with generators, will produce the additional energy to "firm up" the supply which the Company is producing at its other plants. In addition to producing direct energy from the newly made lake, the plant will be utilized to pump water from the Housatonic River back into the lake at such times as there will be a surplus of energy from the other plants of the Company. In other words, when the water in the lake has been lowered, by constant use or by virtue of dry spells, the lake will be raised again by pumping water back into it at times when the other plants of the Company do not have to keep up with heavy demands.

The engineering problems, the employment of men and machinery and divers details of each, contribute many interesting chapters to this story of the Rocky River development.
The lake will be about 10 miles in length with 60 miles of shore line, and will cover nearly 6,000 acres of land. It will encompass several islands and absorb four smaller lakes. It will have several large bays, one of which will extend on toward Sherman at the north and another will extend nearly to Danbury on the south. Several cemeteries which lay in the prospective basin of the lake had to be relocated. More than 100 houses and other buildings have been moved or demolished. Several miles of roads are being relocated and it has taken an army of more than 500 men to clear away trees from the basin.

Enterprising men, anticipating the attractiveness of the new lake and its pretty shores, have already procured property adjacent to what will be the shore of the lake, for cottages and other appurtenances of shore resorts. Skating, fishing, boating and bathing will be enjoyed by thousands, as a result of The Connecticut Light and Power Company's creation of the lake. Wood-studded shores will serve as a haven of rest to tired
This map shows the extent of the transmission system of the
Connecticut Light and Power Company.
mission system that will receive power from the company’s Rocky River Project
men, women and children. Thus, in addition to furnishing power to the inhabitants of the state, the project will also add to the natural beauty of the territory, forming another asset to the commonwealth.

The building of the dam, which is nearly completed, is unique in this section of the country. Instead of constructing a solid concrete and masonry dam, the engineers decided, on account of the terrain and the nature of the soil, to build it of earth.

Two huge shovels, of the dragline type do most of the work. Crane arms, 110 feet long, dip two huge buckets in the canal bed and drag the soil out. The soil is then washed or sluiced hydraulically through pipes to the top of the dam, where the water drains off and leaves the soil, much after the fashion of placer mining. This process goes on day after day, and night after night, with the result that an artificial dam, 950 feet long, 100 feet high, 650 feet wide at the base and 20 feet wide at the top is taking shape. It will contain 375,000 cubic yards of earth
when completed — a veritable levee.

The canal ranges from 57 to 85 feet deep. Owing to the difficult nature of the terrain, one side of the canal had to be built up from material taken from its bed. This project requires almost as much soil as the dam itself, over 315,000 cubic yards. The drags, like practically all other equipment on the job, are operated with electric power which comes from the other plants of The Connecticut Light and Power Company. An extensive substation was installed on the grounds for the purpose of handling all this power.

Coming down still nearer to the heart of the works, we find that the canal ends at the top of the hill, some 200 feet above the Housatonic River. Here the water will pass through penstocks with a cylindrical surge tank.

The power station is situated on the bank of the Housatonic and houses the turbine which is rated at 24,000 kilowatts (32,000 horsepower). Because of the compactness of the power station, it will house, besides the turbine, two huge electrically driven pumps,
each with a capacity of 112,500 gallons per minute. It takes an 8,100 horsepower motor to drive each pump. These pumps will throw great quantities of water from the Housatonic River back through the penstock into the lake above.

When the pump manufacturers received their order for the pumps, they inquired post haste whether a mistake had not been made in specifications; so the story goes. It was felt that an error had been made in the placing of decimal points, as they had never been called upon to manufacture as large pumps as those specified by The Connecticut Light and Power Company. They were advised that no error had been made. So the new power station is going to be equipped with the largest pumps in the country.

The Connecticut Light and Power Company has not discovered perpetual motion, but the method it will employ in this project comes close to it. The water will run through the penstock and turn the turbine wheels which generate electricity. Electricity runs the pumps, which force water back up into
the lake. Water from the lake then flows back through the penstocks, etc., ad infinitum. The only reason this is not perpetual motion is that it takes about twice the energy to throw the water back into the lake as that same water generates when it comes back into the turbines again. There is a gain here, however, for the Company because it will use inexpensive or surplus power for doing the pumping. The water will be released from the lake at times when there is plenty of demand for it: thus surplus power will be converted into firm power. In other words, the way to store power is to store the stuff that power is here made of—water.

This saving of power ultimately benefits every consumer in the state.

The Romance of Rocky River is not complete until it is shown how the Rocky River power plant coördinates with other plants of the Company. To the north is the Bulls Bridge hydro-electric plant. To the south is the Stevenson hydro-electric plant and farther south is the huge Devon steam plant. The
creation of the Rocky River plant completes the circuit, for the present at least, giving The Connecticut Light and Power Company 195,000 horsepower with which to serve consumers of western and central Connecticut in 44 cities and towns having a population of over 450,000.

It is the policy of the Company to keep in the front rank in the development of power; to employ every known artifice to provide, not only for present demands, but with an eye to the future, beyond the average stockholders’ and consumers’ comprehension. Even now the officers are planning developments to benefit the next generation.

The Rocky River project will stand out as an unique engineering feat and long redound to the ingenuity and farsightedness of The Connecticut Light and Power Company.