

NEW YORK'S WATERWORKS

Immense Plant That Brings Supply From Catskills, 150 Miles From Manhattan—Greater Supply Will Be Required in the Near Future.

BY FREDERIC J. HASKIN.
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Just now there is being conducted in New York state a gigantic engineering enterprise that is second in magnitude only to the building of the Panama canal. It is the construction of the Catskill water supply which was begun a year ago in answer to New York city's cry for a solution of its big water problem, and in response to a call for 4,300,000 gallons of fresh water daily in addition to its present supply.

The work involved is so enormous as to be almost incomprehensible to the lay mind. Hundreds of miles of topographic surveys had to be made. Innumerable holes were drilled into the earth or the solid rock to determine the best and most economical locations for the great reservoirs. Samples of soil, sand, gravel, and stone, as well as of rock from core borings, were obtained for study and analysis. All this detail involved the best efforts of eminent engineers, geologists, chemists, specialists in aeration, filtration and reservoir making, and experts in the mechanical work of reconstructing railways and highways. Villages, churches, schools, homes, houses, highways and highways will be moved from the pathway of this great project as the judgment of the engineers increases and since a large portion of the property subject to condemnation proceedings, the amount to be paid out of the city treasury for land damages and water rights alone will approximate \$70,000,000, the total claims filed already aggregating between \$10,000,000 and \$20,000,000.

Greatest in World.

When completed New York's water system will be the greatest ever undertaken by any city in the world. The gathering ground for the water is 130 miles from the city hall and 150 from the lower end of the island. The water, which comes from the Catskills and Catskill, has been levied upon as the main source of supply. The total area of the watershed will be over 800 square miles, and their combined resources when fully developed, will exceed 800,000,000 gallons daily. The water, which comes from three great reservoirs in the Catskills, being carried in aqueducts that will dive under the Hudson at Storm King to a depth of 700 feet or more, and come up on the other side. From there it will cross gullies and surmount hills in three conduits, and an aqueduct will then carry it under East River and New York bay to Brooklyn and Staten island.

Storage Reservoir.

The main features of this great work are to be a principal impounding reservoir—the Ashokan, a storage reservoir—the Kensico, the largest filtering plant ever built, a distributing reservoir and the Catskill aqueduct, 80 miles long. There will be a dam 230 feet high across Esopus creek, and this with other dams and dikes will form Ashokan reservoir. Besides the waters of Esopus this reservoir will receive those diverted from Schoharie creek. Another mile tunnel through the mountains, and those from Catskill creek and adjacent small streams through another aqueduct. The Ashokan reservoir will be 12 miles long and 2 wide with a water surface of 10,000 acres and a capacity of 130,000,000 gallons—a plan for conserving water as great as that which the Emperor Constantine realized in his underground lakes that hold the water for the reserve water supply as safely now as it did 15 centuries ago.

The Catskill aqueduct will carry the water from the Catskills to the distributing reservoir in Yonkers. No pumping will be needed and from there it will be distributed by gravity throughout Greater New York. This aqueduct is large enough to accommodate an ordinary railroad train with ease. The famous aqueducts of Rome pass into significant places beside it, for it will carry nearly three times as much water daily as any of the aqueducts of the imperial city in the great period of the empire when her civic improvements had reached their zenith. Wherever the water flows, hydraulic concrete, the aqueduct will be constructed of concrete. Where it is necessary to cross those great gorges, the aqueduct will be supported by the small channels of such streams as Rondout and Moodna creeks, tunnels will be driven in solid rock far below the surface of the ground. These will be lined with concrete and in them the water will flow under pressure, dropping down into a deep shaft at the northern end of each pressure tunnel and rising again in a similar shaft at the southerly.

Enormous Cost.

The cost of the entire system has been estimated at \$152,000,000. Despite this, it will not be a heavy burden per capita. There is no doubt that by the time New York is situated in the new system, its population will probably have reached 7,000,000. Twenty-five yearly payments of 90 cents per person will defray the cost. In return the new system will supply water for private, manufacturing and public uses at the rate of 150 gallons for each per-

PROUD BOY LONGS TO DRIVE WAGON LIKE HIS BIG FATHER

It's the one who does his own thinking who is the happiest.

His daddy was just the finest, greatest man in the world. On Saturdays and other days when he was not in school, the boy, who is six or seven years old, never missed an opportunity to ride about Portland and view the wonderful sights which had become so commonplace to the father.

All day, when the youngster was so fortunate as to have the chance, he would sit beside the "dad" and he couldn't help but wonder and marvel at what a wonderful father he had after all.

It was a common occurrence for the boy to pass some of his schoolmates on Morrison or Washington streets, or in other parts of the city. He would, invariably, it seemed, the children walked. None of them was fortunate enough to ride and the boy almost felt sorry for the unlucky children whom he had met in school.

And he thought it all out while riding about the city. He attributed his good fortune to the fact that he had a father who was a "big" man, and the gift his father had of getting in the car than all others. Everyone would look at him and say "daddy" with an expression of admiration on his face.

For didn't daddy drive a great big car, and go and do as he pleased and wasn't he just one of the nicest men in the world? And didn't daddy take his son with him whenever he could? Some day, the boy figured and planned, he would grow up and be a great man, strong just like his father. And when he became a man he was going to be in the same business, so he would ride about town while others walked. His father was a "big" man, just what a man should be. He didn't mind a success of any kind. Daddy had made a success of life.

Day after day the boy rode and anticipated the time when he would succeed the father, who he would see. How grand it all would be! How wonderful it would all be! Everyone would admire and adore him, because he did to the fullest extent of a youngster's imagination.

SCALDED BY STEAM IN GAS COMPANY PIT

Larntz E. Heave's suit for \$10,000 damages against the Portland Gas company is on trial before Judge O'Day hearing of testimony this morning.

Heave was severely scalded by escaping steam from a pipe that burst in a pit 18 feet deep. A new pump had been installed, and Heave alleges that he was directed by his foreman, J. F. Lerner, to draw the water in the pump, and that he was told to put the company failed to provide proper supervision for the work.

Heave claims that the company failed to provide proper supervision for the work, and that he was told to put the company failed to provide proper supervision for the work.

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NORDICA LEAVES FOR LOS ANGELES

(Special Dispatch to The Journal.)

Parma, Idaho, June 12.—Madame Nordica and a sister, who have been at the home of E. H. Brumbach, near Snake river, left Wednesday for Los Angeles, the home of the sister, to spend the summer. Madame Nordica gave a reception to the ladies of Parma Tuesday at the Brumbach home.

Jim Castle holds the record for catching the largest sturgeon of the season, one weighing 255 pounds and another 160 pounds. They were caught in the Snake river near Castle's ranch, in Oregon. Madame Nordica had her picture taken with these fish, so as to show her friends in the east, who she said might be permitted to draw their own conclusions as to who had caught them.

How Syracuse Woman Took Her Wrinkles Out in Three Nights

AFTER MASSAGE AND BEAUTY SPECIALISTS HAD FAILED

"Made Me Look 20 Years Younger"

Ever since woman's beauty held sway over man and brought her power, influence and wealth, she has sought a way to stay the processes of old age and banish deep lines and furrows from the brow.

Chemists, beauty doctors and skin specialists have for centuries past vainly tried to fathom the sealed secrets of nature and find a way to keep the beauty of youth in a woman's face and form.

Harriet Meta was no exception to the general rule of women. Trouble and worry left their unsightly lines and marks upon her face. She saw the beauty of her youth giving way to the heavy imprints of coming age.

Her first resort was to facial massage, cold cream and steaming pots; then next to beauty specialists; but nothing, to grow deeper and deeper. Massage even appeared to stretch the skin; more wrinkles came. She had spent all the money she could afford to spend, and was ready to give up in despair, when one day a friend made a happy suggestion.

This gave her a brilliant idea. She set to work on the thing herself, and after several months' hard labor and almost endless experimenting, she succeeded in producing a wrinkle remover entirely different from anything she had seen or heard of. She tried it on herself, and lo and behold it worked a wonderful transformation in a single night. She tried it a second night, and her wrinkles were practically gone. A third night—three treatments in all—and her wrinkles had entirely disappeared and her skin was soft, clear, rosy and smooth.

Many others also have used this remarkable process with wonderful results.

Mrs. Moran Elmer, of New York city, writes: "Your treatment removed all my wrinkles in one night." Mrs. Turnham, of Seattle, Wash., says: "My wrinkles are all gone; words cannot express how grateful I feel to you for what your treatment has done for me." Mrs. A. M. Brooks, of Howe, Texas, writes: "Your treatment is the first I ever tried that really had the desired effect in banishing face lines. I am 65 years old, and yet many say I do not look more than 45."

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