

HISTORY
OF
Paterson and Its Environs
(*The Silk City*)

BY
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Historical—Genealogical—Biographical

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CHAPTER I.

**Organization of the Passaic Water Company, and early struggles—
Pumping water back over the falls—A disaster caused many anxious
hours—A water famine averted by a narrow margin—Property and
franchise the citizens of Paterson persistently refused to buy.**

The following account of the trials and tribulations of the Passaic Water Company during the first thirty-five years of its existence is compiled mainly from "Paterson's Water Supply, being a Historical Sketch of the Passaic Water Company," written in 1890 by Mr. John J. Brown, treasurer of the company almost from the date of its organization. The first record in the books of the Passaic Water Company is the following:

PATERSON, N. J., Feb. 11, 1854.

A meeting of the Commissioners of the Passaic Water Company was held this evening when it was agreed unanimously that the following notice be given in the Paterson Guardian and Paterson Intelligencer:

·NOTICE—The books for the subscription of the capital stock of the "Passaic Water Company" will be open at the office of C. S. Van Wagoner on Tuesday 7th, Wednesday 8th and Thursday the 9th days of March, 1854 from 10 o'clock A. M. until 5 o'clock P. M., each day.

Signed T. D. HOXSEY,
JOHN J. BROWN,
C. S. VAN WAGONER,
JOHN DREW,
SAMUEL SMITH.

Paterson, Feb. 14, 1854.

At a subsequent meeting of the commissioners held March 4th, an organization was effected by the choice of Mr. Van Wagoner as president, Mr. Drew as secretary and Mr. Brown as treasurer. It was ordered that when subscriptions were made to the capital stock on the opening of the books, that ten per cent. should be paid; namely, one per cent. in cash and nine per cent. in checks, which should be approved by the treasurer. Pursuant to the notice, the books for subscriptions were opened on the days named. It is possible that if this occurrence had taken place in later years, there might have been a desire to push an enterprise of so great moment as the introduction of pure water. But at this early date only a few took interest in it, and the full amount of the subscription to the capital stock was only completed by Mr. John Ryle, who had already subscribed for the largest part, filling up the amount needed by subscribing for the balance. This was done at the last hour of the day before closing the books. The original subscribers were John Ryle, Roswell L. Colt, Thomas D. Hoxsey, John J. Brown, Andrew Derrom, Thomas Thorp, William Ryle, Jr., C. S. Van Wagoner, Peter Ryle. The amount of the capital stock was \$100,000. On

April 14, Thomas D. Hoxsey was elected president and a committee, consisting of John Ryle, C. S. Van Wagoner and Thomas D. Hoxsey, was instructed to visit the water works at Buffalo, Philadelphia and Cincinnati.

Thus was started into being a company almost without friends; quite without money, with an utter lack of experience; with a very inadequate conception of what a water supply to a city meant; with everything to learn and at a period when only the larger cities had introduced water. As may be imagined, an enterprise like this, requiring so to speak a giant's strength with only the power of a child, could only be attended with a world of care, anxiety and trouble, and could only be accomplished after many mistakes. The fact that Mr. Ryle had taken the larger part of the stock became a source of both weakness and strength to the company. The position of Mr. Ryle was one of power by reason of his having large rights to the waters of the Passaic river, derived from agreements with the Society for Establishing Useful Manufactures. He also had pumping facilities at the "Gun Mill" and had control of the waters in the lower basin below the falls. This gave him the power of being greatly useful to the company. On the other hand the large subscriptions he had made involved large cash payments, too large indeed to come from one pocket. It may be borne in mind by the older readers of this sketch that dollars in those days meant a great deal more than they do now. Paterson at that time had no reservoirs of capital such as national and savings banks to go to, and neither real estate, nor silk machinery, nor silk itself, could build water works. Hence the early records of the water company show a series of trials, delays, makeshifts and disappointments from this lack of cash. Some of these were foreseen and inevitable, some, as may be supposed, came unbidden, but all alike were unwelcome.

As an illustration of the value of a dollar of that day, and also what we in this extravagant age might call a grim joke, the following resolution was passed at a meeting which provided for the election of directors for the second year: "Resolved, That Thomas D. Hoxsey be paid the sum of one hundred dollars for his services as president for the first year, and that the secretary and treasurer be paid ten dollars each for the same term."

Mr. Ryle had before this time acquired possession of a part of the falls property now owned by the water company. He had constructed what was known as the "lower reservoir" and he had at his mill a surplus of power. He proposed to the company, for a certain sum per annum, to supply them with water from his reservoir, the water to be forced into the reservoir by his power from below. This was all in anticipation of the mains to be laid by the company. This inadequate and costly scheme of lifting water to that altitude, with all the risks of piping so rapid a stream as the Passaic often is so near the falls, was after considerable negotiations adopted; and this first supply, and for several years after the only supply was by this crude and makeshift method of sending the very water back which had just tumbled over the falls, and which again came back through reservoir and mains to the streets below. So great a mistake must be attributed to inexperience and to lack of means for a better way.

In the autumn of 1855 various cities and towns were visited to ascertain the relative value of the so-called cement pipes. Full reports were made on the subject and the directors voted to adopt cement pipes for mains. The first contract provided for the laying of ten miles of street mains.

In 1857 the company purchased from Mr. Ryle so much of the falls property as was then deemed necessary. During this and the following year the mains were laid in what was then the North ward, being that part of the city lying north of the river below the falls. The increase in the number of users of water showed the utter inadequacy of the provisions made for its supply and distribution. It was in 1861 decided that the power of the falls should be used for pumping, while at the same time the water in the river above the falls should be used for supplying the reservoir instead of pumping it from the basin below.

In 1867 the company met with an unexpected disaster. The entire water supply of the city at this time came through a large main laid on a bridge built for that purpose crossing the river from the Valley of the Rocks to the Gun Mill. During a heavy freshet the bridge was carried away and the pipes with it. This left the city entirely without water. Fortunately the Paterson Gas Company had at that time quite a large stock of large iron pipe on hand. This gave a chance to repair, with little loss of time, what threatened to become one of the greatest disasters to the city. New pipes were connected with the broken pipes leading from the reservoir and were laid with great rapidity on the surface of the ground along the Valley of the Rocks to the bridge then standing, called the Ryle bridge, crossing the bridge and into the Gun Mill yard, where they were attached to the pipes on the south side of the river, thus restoring the connection between the reservoir and the city. Many will remember the odd appearance of this new kind of supply pipes, lying as they did like an enormous serpent on the highway. The central reservoir was built in 1867 and six years later the upper reservoir, the latter being used for the Totowa section of the city.

An injudicious investment was made by the company in 1876 by the purchase of Franklin lake, a body of water lying some six miles from the city. The property was never utilized and was disposed of by sale some years later.

In April, 1877, a very radical change was made in the management of the company. The seats of all the directors, with the exception of that of Mr. Ryle, the president, were vacated; their places were taken by men who had either as stockholders or as bondholders acquired a large interest in the company. These new men were the late William Ryle, who had in the early history of the company been a director and officer; Mr. William A. Hadden, of Hadden & Company, of New York; Mr. William H. Fogg, of the China and Japan Trading Company, also of New York. Seth Low was elected but resigned before taking his seat in the board. His place was filled by the election of the late John Shaw. Mr. Brown also resumed his seat in the board. This change of management was made necessary by reason of the financial embarrassments which the company had gotten into by a too free

use of its money and credit. The new board at once proceeded to restore the credit of the company and to rescue it from the peril in which it found itself.

The Stony Road reservoir, the largest of the reservoirs of the company, was erected in 1885.

In 1885 Garret A. Hobart, representing a syndicate of New York capitalists, took his seat in the board and was shortly after elected president.

On four occasions—1852, 1871, 1877 and 1906—were the voters of Paterson called upon to decide the question of municipal ownership of the water supply. On three occasions the voters decided strongly in the negative. There were two causes for this stand, anomalous as the action of the voters may appear at this late date. The first of these causes was the anxiety of the water company to dispose of its property. This induced a belief on the part of the public that the property was not worth the price asked. Then again came the rather nebulous arrangements between the Water Company and the Society for Establishing Useful Manufactures. This latter company had received from the legislature the right to use all the water that came down the Passaic river; the Water Company had the right to all the water that flowed over the flashboards of the society's dam above the falls, but this right was limited to a number of years; even if it had been perpetual, the serious question of reservoirs would soon present itself, the Water Company having used up nearly all the available sites for such purposes. The forbearance of the society in not "squeezing" the Water Company might have been due either to virtue on the part of the directors of the society or to the poverty of the Water Company; ownership by the city would have placed the matter in altogether different perspective. The directors of the society might cease being tolerant and then—the society also was poor and the taxpayers had plenty of cash. In 1906 the voters decided in favor of municipal ownership, but nothing further was done in the matter.

CHAPTER II.

The Passaic Water Company becomes a part of a large corporation—Consolidation of water interests in the Passaic water-shed—Purchase of supplies by Newark and Jersey City—A large part of the State depending for water on the will of a Paterson corporation.

When the late George H. Cook was State Geologist of New Jersey he advocated in several of his reports to the Legislature the acquisition by the State of reservoir sites in the northern part of the State. He pointed out with considerable force of argument that nearly all the cities in the northern part of the State, including Newark and Jersey City, depended absolutely on the Passaic river for a supply of water for domestic use and he urged the Legislature to undertake the solution of a problem at that time considered of the utmost importance and too large for private interests to grapple with. Whenever statesmen undertook to consider the matter there loomed up the riparian rights owned by the Society for Establishing Useful Manufactures.

The society had the right to every drop of water passing the falls of the Passaic at Paterson. Without first securing these rights not a step could be taken towards supplying the public with water. The society had been organized for the purpose of manufacturing, in fact, of controlling all manufacturing in the country according to the ideas of some of its founders. It was true that the society had abandoned the object for which it had been incorporated; it had made a failure of a small venture into the field of manufacture, but it had not relinquished its rights to the waters of the Passaic. For many years it had satisfied itself with collecting rents for the use of the water power created by the falls at Paterson, but it had always sedulously guarded the franchises awarded to it. On several occasions the extent of its rights had been questioned in suits at law and the society had always proven victorious. The Morris Canal and Banking Company had tapped the river in order to secure sufficient water for purposes of navigation; the courts decided that the canal company had exceeded its powers, that the water of the Passaic river was practically sacred and that it could be used only by the society. So when men, anxious to serve the public by securing an adequate and permanent water supply, undertook to grapple with the proposition, they were ever ready to pass on to others what seemed greater than any riddle ever suggested by the Sphinx.

But soon were found men of enterprise and means and bold enough to take up a proposition from which the public authorities shrank. The first of these men was Delos E. Culver, who had gained some fame as a railroad contractor. He secured a franchise for the construction of an aqueduct in Hudson county. He told the public that he was anxious to secure a supply of water for Jersey City; what he did not tell at the time was that he had conceived the idea of supplying at least the lower part of Manhattan island with Passaic river water. But the project was too large for one man, especially one of limited means, to grapple with, and so he called into consultation John R. Bartlett, who was both aggressive and wealthy. Bartlett quickly saw just where lay the crux of the situation. He congratulated himself when he had secured an option on all the stock of the Society for Establishing Useful Manufactures and then he was ready to talk business with men of larger means. He succeeded in interesting Garret A. Hobart and George F. Baker, and other men whose names spell millions in the financial marts. His first proposition, to supply Newark and Jersey City with water at a fixed price per million gallons, was turned down; both these cities were satisfied with their water supply, for there was enough of it and Paterson's sewage had not as yet become sufficiently voluminous to endanger the health of people who drank from the Passaic river some miles from where the pollution had begun to threaten. But Bartlett saw his way clear to securing the water of the Passaic and he intended to profit thereby if forcefulness and genius counted for anything in the salesman. His attention had been called to an abortive attempt to connect Hoboken with the metropolis by means of a tunnel; he purchased the tunnel rights and dug further under the Hudson river, spending between \$100,000 and \$200,000 in his attempt to reach Manhattan

island. He had an idea that the terminus of the tunnel in New York should be Washington Square. His projects looked well on paper and he had no difficulty in securing all the financial assistance requisite. He intended to use the tunnel for purposes of general traffic, but he was willing that others should look after this phase of the project, what he wanted more than anything else was the placing of two tubes in or under the tunnel for the purpose of conveying water to the residents of Gotham. What finally became of the tunnel project is well known; it emerges in New York at Christopher street, but it did not do this until long after Bartlett had lost all interest in it. He then devoted his attention apparently exclusively to securing a water supply for the cities in the northern part of New Jersey, but his friends and intimates know that it was always with a mental reservation that the Passaic river water should eventually reach New York City. In order to create interest in his project he offered to supply Montclair with water; the offer was accepted and Bartlett found himself in the predicament of having sold something he had in his possession, perhaps prospective only, but with no means of delivering the goods. This, however, did not serve to discourage Bartlett; he promptly sunk a number of wells and from these Montclair derived its water supply for a number of years. In the meantime he had obtained possession of Echo lake in the upper part of Passaic county; he constructed ice houses and sold water in its solid state; in order to facilitate delivery to his customers he built a railroad connecting the ice houses with the New York, Susquehanna & Western railroad; the latter now owns the smaller line, and is in turn owned by the Erie Railroad Company.

In the meantime the population of Newark and Jersey City was daily increasing, as was also the pollution of the Passaic from the sewers of Paterson, and it was evident that something would soon have to be done. People ready to sell estate are apt to hold out for a higher price when they know that an anxious purchaser is coming; in order to avoid the expenditure of unnecessary cash those interested in the water project began buying up farms and other property through persons not supposed to have more than a casual interest in the transactions. Thousands of acres in Passaic and Sussex counties were purchased, mainly through T. F. Hoxsey, the sellers not knowing who would be the ultimate owners of what they parted with.

Quietly as these doings had been proceeded with, they had attracted the attention of other men of means who had a similar object in view. The Morris canal had been sold to the Lehigh Valley Railroad Company, the latter thus doing away with all competition in carrying coal from some fields in Pennsylvania. But the canal as a canal was of no value; it was in fact a source of expense, but it could not be abandoned, for extensive rights acquired when the canal was constructed depended altogether on the waterway being used for purposes of navigation. So the railroad company tried to find some additional use for the canal. The latter derived its water from Greenwood lake and Lake Hopatcong; both of these sources were large bodies of water and it was thought that with little difficulty they could be turned into reservoirs. The watershed of neither was very extensive, but

some millions of gallons of water per day could be depended upon and there was no need of any additional conduits to carry the water to Newark and then—from Newark to Jersey City was only a short distance. The water syndicate, which had as yet taken neither name nor corporate existence, soon ascertained that there was a rival in the field and so it happened one day that the competing interests got together and when negotiations were finally concluded the Lehigh Valley found itself in partnership with the anonymous syndicate.

Enough real estate—and a great deal more, for it was found at times that a whole farm had to be purchased in order to obtain possession of a few absolutely necessary acres—having been secured, there was no need of further secrecy and so the East Jersey Water Company sprang into existence, the main object of which was the constructing of reservoirs and pipe lines. The West Milford Water Storage Company, under which Bartlett had operated to some extent, passed out of existence, its property having been first transferred to the anonymous syndicate. The latter also availed itself of the option held on the stock of the society and that passed into the hands of the syndicate.

Anxious and piteous appeals for purer water than was to be had from the Passaic river had arisen from Newark. An attempt was made to compel Paterson to cease sewerage into the Passaic. But the courts insist that a man applying for relief must come with clean hands, and Newark itself was polluting its own water supply. Drop a stick into the Passaic anywhere in Newark and the tide will carry that stick up the river beyond the intake at Belleville, and what a stick would do, sewage certainly did. And so Newark found itself in a predicament; scolding Paterson did no good and the people of Newark objected as much to their own sewage in their drinking water as they did to that of Paterson. If the pure water from the upper reaches of the Passaic in Passaic and Sussex counties could be brought to Newark there would be a great deal of happiness. The capitalists of the East Jersey Water Company were listening and they heard the call of Newark; later on, as the sequel will show, they regretted that they had not been afflicted with deafness at this particular time. Newark soon felicitated itself that it had made an excellent bargain: it was true that six million dollars was a pretty sum to pay even for fifty millions of pure water per day, but then Newark would have reservoirs and pipe lines; if any remonstrances came from taxpayers these could be hushed by pointing to the Passaic river at Newark. There were also felicitations among the capitalists of the Water Company, for they had found a cash customer with plenty of wealth; of course, it would take quite a few dollars to erect reservoirs and construct conduits, but after all it looked as if there would be a profit of between one and two million dollars at the clean-up. So the Water Company set merrily to work; thousands of laborers from sunny Italy were employed to dig trenches and construct reservoirs; huge riveted steel pipes forty-eight inches in diameter were laid from an intake at Macopin; once there came an unpleasant surprise, for the pipes had been laid for a considerable distance through marshy soil and one morning

were found on top of the soil instead of being imbedded in a ditch, for the air in them had raised the pipes from what was presumed to be a lasting resting place. But this was easily overcome and the margin of profit was large enough to make the consequence of such a mistake in engineering almost negligible. Finally came the test and trouble. Carrying water in steel-riveted pipes for a considerable distance was something comparatively new in hydraulic engineering, but the engineer in charge had figured out very carefully that a forty-eight inch pipe would easily carry fifty millions of gallons per day. The engineer would have been right, if the pipes had remained of their original diameter, but as soon as water began to flow, pipe moss began to accumulate on the inside of the pipe, and when measurements were taken by the engineers from Newark it was found that far less than fifty million gallons per day were being delivered. There was nothing to it but to build another pipe line, a task made ever so much more unpleasant by the continual rise in the prices of steel and labor. But it had to be done and it was done, but not until the margin of profit had been obliterated. Then the engineers from Newark measured the two reservoirs known as Clinton and Oak Ridge and found that they would not hold enough water to secure fifty million gallons a day all the year round. So the water company built another and larger reservoir known as Canistear, and, for fear that even this might not prove sufficient, the title to Echo lake, or Macopin, as it was frequently called, was transferred from the water company to the city of Newark. And so it came to pass that when the financiers of the water company struck a balance sheet they found that they lost a cool million and a half of dollars. By the agreement with Newark that city was to receive 27,500,000 gallons of water per day during the pendency of acceptance; the water company recouped some of its loss by selling the surplus to Jersey City, which also derived its water supply from the intake at Belleville, but the water company determined to change its engineer and be a little more careful with the next proposition for a water supply to a municipality.

It was not long before this second proposition presented itself, for Jersey City was consuming every day a fair proportion of the sewage of Newark and Paterson. Patrick H. Flynn had made a barrelful of money by speculations in Brooklyn surface transit and thought he might materially increase his wealth by doing better than the water syndicate had done with Newark, for he had the benefit of the sad experience of the water syndicate before him. So he made a bargain with Jersey City by which he agreed to deliver to the Hudson county city a plentiful supply of water from the Rockaway river, another tributary of the Passaic, Jersey City to pay him seven and a half million dollars for the job. As a matter of course he was required to purchase the rights of the society and it is perhaps unnecessary to state that he did not obtain those rights at bargain-counter prices. But he got the rights and proceeded to work; in fact, he continued to work until his available cash gave out and then threw up the job. Jersey City then applied to the water syndicate to take hold of the matter and the syndicate was willing. The contract was carried out and, although there was considerable litigation

to determine whether the terms of the contract had been carried out, the water syndicate declared a fat dividend after Jersey City had paid up.

Up to this point the various doings of the water syndicate had been carried on in accordance of what might be called in the parlance of the day a "gentlemen's agreement." But as such agreements cannot be carried on in perpetuity, especially in view of the possibility of executors and assigns, it was deemed advisable to have a better arrangement. For this purpose the New Jersey General Security Company was organized in 1894, the stock thereof being distributed among the members of the syndicate. This company now holds all the stock of all the water companies, including that of the society. The principal activity of this corporation has been the erection in the basin of the Passaic falls at Paterson in 1916 and 1917 of a large station for the obtaining of electric energy from the falls. The society found itself obligated by many old contracts to deliver to numerous manufacturers in Paterson a specified amount of water power every day; the draft on the river for the Newark and Jersey City water supply reduced the volume of water until there were failures to carry out the contracts for motive power. In a number of instances trouble was avoided by the purchase by the security company or its individual stockholders of such affected manufacturing establishments, but there were some that could not be purchased and to which the company was obligated to furnish motive power. The erection of the station, where power is obtained from the river when there is enough water and by steam when there is insufficient water, supplies more than the demands of the security company, but the surplus is disposed of by an agreement with the Public Service Corporation, the latter making use of the power for its street railroads and for manufacturing establishments all over the city of Paterson. What makes this arrangement particularly agreeable to the security company is that during the winter months there is abundant water and consequent energy at little cost, and this just at a time when the coal bills of the Public Service are apt to assume dividend-destroying figures.

One source of annoyance and loss of revenue of the water companies is to be found in the claims made by riparian owners. A number of silk dyers along the lower reaches of the Passaic river in Paterson found that the volume of water in the river had been so reduced by the draft on the upper river that they sustained losses from the want of water. The result has been that the water companies, and also Newark and Jersey City, have been compelled to pay a number of judgments of considerable proportions. In order to avoid these continually recurring and apparently everlasting annoyances and losses, the water companies have instituted condemnation proceedings, endeavoring by these means to establish their right to continue removing water from the river.

It is difficult in a sketch of this kind to follow chronological order on account of so many happenings at the same time. The water syndicate, either as an anonymous body or by means of corporations of which it obtained control, has been very active in supplying water to a number of

municipalities. A brief reference to these and similar activities will serve to indicate their scope:

A filtration plant of extensive dimensions was established on the Passaic river between Paterson and Little Falls in 1902 and subsequently sterilization facilities were added, so that all the water served to customers by the various companies interested is both filtered and sterilized.

The Passaic Water Company's contract with the city of Paterson expired August 1, 1910, but the company continues to furnish water to the city and all consumers in the city under the same terms and conditions as existed in the contract.

The waters of the Passaic river below the falls had been becoming more and more polluted, owing to the increasing population of the city and the increasing number of dye houses and factories which discharged their waste into the stream, and from time to time negotiations were entered into with some of the larger dyeing establishments below the falls, with a view to supplying them with clean water from above the falls. The outcome of these negotiations was that in 1905 the Passaic Water Company laid a forty-eight to forty-two inch steel conduit from above the falls some two miles down stream and since 1906 water has been supplied by this gravity pipe to numerous dye houses and factories.

The Acquackanonk Water Company supplies the cities of Passaic and Clifton and some parts of Acquackanonk township; the reservoir for the service being located at the Great Notch.

From the same reservoir water is also supplied to Montclair, through the medium of the Montclair Water Company. This company also supplies water to the companies furnishing Orange, West Orange, Bloomfield, Nutley, Little Falls and Glen Ridge.

The East Jersey Water Company supplies from the same reservoir the New York & New Jersey Water Company for the city of Bayonne, and the towns of Kearney, Harrison and East Newark.

The New Jersey General Security Company is also the owner of the Dundee Water Power and Land Company, a corporation which was organized in 1832 for the purpose of stimulating manufacturing in the city of Passaic. It owns a dam in the Passaic river between Passaic and Bergen counties below the city of Paterson. From this a canal runs to Passaic and supplies with motive power a number of manufacturing establishments.

Where does Paterson come in with all this maze of water companies, each of which takes water which if permitted to run down stream would pass through the city? As a matter of fact, Paterson's water supply is regarded as the equal to the best in the country; streams, the water of which is used for domestic purposes, are protected from pollution by stringent laws; the water which is pumped into the reservoirs near Little Falls is filtered and sterilized; there has not been for many years a case of typhoid fever—that supreme test of the purity of a water supply—in Paterson that could not be traced to some cause other than the water from the river. The flow of the Passaic river—an average for twenty years of 1282 cubic feet per second—

is so great that as long as reservoir facilities keep pace with the increase of population there need be no fear of a scarcity of water for many decades.

But Paterson is not solely dependent upon the Passaic river at Paterson for a water supply. It can do as Newark and Jersey City have done: go to the upper reaches of the river. The Passaic has four tributaries, the volume of water in each of which is sufficient to supply a large city. The Pequannock has been taken by Newark, and Jersey City owns the Rockaway; the Ramapo is subject to pollution by manufacturing establishments and it flows through a low country, making its water less desirable for domestic use than is the water from mountain streams. There remains the Wanaque, the outlet of Greenwood lake, draining a large area of mountain watershed. Newark, despite its large and constantly increasing holdings in the Pequannock watershed, is threatened with insufficiency of water and it has reached out for the Wanaque, for Newark cannot do as Paterson does and may do for many years, depend on the water at its doors. The State authorities a few years ago took the action they should have taken a quarter of a century ago and have taken charge of the water question. By the action of these authorities Newark has permission to avail itself of the Wanaque supply, but with the proviso that a certain percentage of that supply shall always be at the disposal of Paterson. The development of the Wanaque watershed is now under way, but it will be some years before a supply of water will be available from that source.

CHAPTER III.

Horse Railroads and Trolley Lines.

Horse railroad companies, which were in existence in Paterson up to the year 1891, were organized not so much for the direct accommodation of the traveling public as for the purpose of developing tracts of land lying some distance from the centre of the city. None of them ever paid any dividends and all succumbed, after numerous reverses, to the panic of 1873. Previous to this it was a continual struggle for existence; all kinds of devices were adopted to keep the cars moving even after the reorganization subsequent to the panic, the company owning the line running through Main and Market streets at one time resorting to paying the drivers and conductors partly in cash and partly in stock of the company. Finally they were consolidated into one company, which owing to the liberal provisions of the charters of the various companies, succeeded in paying expenses; it was, however, not until the use of electricity materially reduced the running expenses and lines were extended to different parts of the city that the company was put on a paying basis.

The Paterson Horse Railroad Company was incorporated in 1863 by a special act of the legislature. Under that charter a track was laid in Market street from Spruce street to the Erie railroad; the principal object of the construction of this road was the transportation of locomotives from the