

NEW JERSEY

Court of Errors and Appeals.

THE STATE, AT THE RELATION OF	} On appeal from
THE BOARD OF HEALTH OF THE	
STATE OF NEW JERSEY,	
<i>Respondent,</i>	
<i>vs.</i>	
GEORGE IHNKEN,	} the Court of
<i>Appellant.</i>	
	} Chancery.

Brief for Respondent.

The bill in this case was filed for the purpose of enjoining the defendant below from permitting the waste water from the washing of cans and bottles, and the cleansing of the floors in his creamery, near Stockholm, Sussex county, New Jersey, to flow into the Pequannock river, from which the city of Newark obtains its supply of water for domestic use. The bill was filed pursuant to the provisions of "An act to secure the purity of the public supplies of potable waters in this state," approved March 17th, 1899 (*P. L. 1899, p. 73*), section one of which act reads as follows:

No sewage, drainage, domestic or factory refuse, excremental or other polluting matter of any kind whatsoever which, either by itself or in connection with other matter, will corrupt or impair, or tend to corrupt or impair, the quality of the water of any river, brook, stream or any tributary or branch thereof, or of any lake, pond, well, spring or other reservoir from which is taken, or may be taken, any public supply of water for domestic use in any city, town, borough, township or other municipality of this state, or which will render, or tend to render, such water injurious to health, shall be placed in, or discharged into, the waters, or placed or deposited upon the ice, of any such river, brook, stream or any tributary or branch thereof, or of any lake, pond, well, spring or other reservoir above the point from which any city, town, borough, township or other municipality shall or may obtain its supply of water for domestic use, nor shall any such sewage, drainage, domestic or factory refuse, excremental or other polluting matter be placed *or suffered to remain upon the banks of any such river, brook, stream or of any tributary or branch thereof, or of any lake, pond, well, spring or other reservoir above the point from which any city, town, borough, township or other municipality shall or may obtain its supply of water for domestic use as aforesaid.*"

In section four of this act will be found the authority of the State Board of Health to file a bill in the Court of Chancery to restrain any violation of the first section of the act just quoted.

The case was heard by Vice-Chancellor Stevenson, who filed a memorandum opinion to the effect that from the proofs it seemed clear that the defendant was engaged in polluting the waters of the Pequannock river, and that what he was doing was, beyond all doubt,

within the prohibition of the act of the Legislature above recited, whereupon a decree was entered on the 14th day of May last that an injunction issue restraining the defendant, as prayed for in the bill of complaint.

The evidence taken before the Vice-Chancellor clearly disclosed that the defendant was, in fact, polluting the waters of the Pequannock river. Morris R. Sherrerd, a witness produced on the part of the complainant, testified that he was the Chief Engineer of the Board of Street and Water Commissioners of the city of Newark, and was familiar with the water-shed from which the city of Newark secured its water-supply; that he was also familiar with the premises occupied by the defendant as a creamery; that the creamery is located on the stream which flows from the Canistear reservoir to the Oak-ridge reservoir, and that he observed at the creamery a trough carrying waste matter which emptied on the ground about twenty feet from the stream, which waste matter ran into a little ditch and then into the main stream. (*Case, p. 17.*) This same witness again described the condition as follows: "The water comes out of a spout running outside of the building, and then falls some three feet, I should say, onto this ground, and has made for it a small ditch about fifteen feet, and it runs along into that ditch into the main stream." He also testified that the line of the ditch is a continuation of the line of the trough.

On page 19 the witness says, in answer to a question as to what was carried off through this trough, "It seems to be the water in which the milk cans are cooled, or in which they are more or less washed. It is the drainage of the tank in which these milk cans are allowed to remain."

On page 23, in answer to the inquiry as to whether

the substance deposited in the river was injurious to the waters for potable purposes, this same witness replied: "I would say that the substances that are carried into the stream there would tend to be injurious."

"Q. In what way?

"A. This trough brings out the wash water from milk cans, and those milk cans are brought in from the country districts there, and they of necessity must have more or less manure upon the sides of the cans, and also they are handled by men who are not particularly careful in their personal cleanliness, and the wash water which comes from these cans is apt to carry, not only contamination that would come from the barnyard, but also contamination of human faecal matter that might remain on the hands of the persons handling the cans, so that it would seem to me that the washings from these cans would be dangerous to allow it to enter into a stream that is used for water-supply purposes.

"Q. What is the character of this substance?

"A. The water, as I have seen it in the tank, is dark and dirty."

On page 24 the witness was asked:

"Q. How does the water appear to the eye where it is discharged into the stream?"

"A. Well, it is of such a character that you would not think of drinking that water, and particularly when you see this water as it stands in this vat, as I have seen it."

On page 25 the witness testified that the stream of water into which this polluting matter was allowed to flow emptied into the Oakridge reservoir, which reservoir was used intermittently.

On page 34 the witness says that he did not know what the water in the trough contained, but that its appearance was sufficient; that it evidently contained the

washing from milk cans, as far as he could judge; that it was a discolored water—dark and black.

The witness, in answer to a question as to whether a bacteriological examination was necessary in order to determine the injurious character of the contamination, answered (Case, p. 37): "It would not be necessary. I might go further and say that in this particular case it seems to me that if you could follow a milk can from the barn and know that that milk can had been handled by employes whose hands were soiled, and had also manure on its outside, and that can was sent to a creamery, and then allowed to be put in this vat, whether it was previously washed, and that washing allowed to go into the stream, or whether it was put into the vat, and that drainage allowed to go into the stream, the conclusion would be positive that that was a dangerous spot in the water-shed.

Dr. Alonzo C. Hunt, the Medical Inspector and Assistant Secretary of the Board of Health of the State of New Jersey, testified (p. 41) that the character of the liquid which was being conveyed to the stream was of a milky character, and that on August 30, 1905, he took occasion to get down over the stream, to follow the liquid waste, and that foul odors were noticeable as arising, this being due, as he supposed, to decomposition of the material of the liquid.

The doctor further testified:

"Q. Doctor, is it injurious to a water-supply to place in it decomposed matter of any character?

"A. I do not believe that anything should be added to a water-supply that is not as pure as the water itself.

"Q. Do you consider that the substance which you saw being deposited there would tend to impair or corrupt the character of this water?

"A. I should certainly say that it would."

On page 45, this same witness testified that at the point where the discharge entered the stream, it discolored the stream for a short distance, about three feet.

On page 46, this question was put to the witness by the Court:

"Q. I suppose, Doctor, dirty water of any kind impairs the quality of drinking water, doesn't it?"

"A. That is my view of it entirely. Water is supposed to be pure, and anything that is added to it or taken from it really tends to impair its quality as a potable water."

Dr. Henry Mitchell, the Secretary of the Board of Health (p. 51), testified that the character of the discharge was slightly opaque at the time he made an inspection in June, 1905, and that the character of the liquid was such as, in his opinion, would corrupt the drinking water. And further, that in his judgment no water which is used for washing persons or implements or utensils could be safely placed in potable drinking water.

On page 53, Dr. Mitchell testified that there was excremental matter within about twenty feet of the building, and, on page 57, said that he assumed that if it was on the ground in the vicinity of the building, that there was great liability, almost a certainty, that it would be tracked in (to the building), more or less.

George W. McGuire, another witness produced by the complainant, testified that (p. 59) he was the Chief Inspector of Foods and Drugs of this State, and that on the 21st day of June last, he visited the creamery to get statistical information with reference to the quantity of milk that was received there, and how they han-

dled it, and that he found that they took in about 2,000 to 2,400 quarts of milk per day.

On page 60, he said that the color of the water, going through the trough, was of an opaque character.

Mr. Ihnken, the defendant, being sworn on his own behalf (p. 64), testified that the milk from the creamery is shipped on the cars to Brooklyn; that farmers bring in their milk to the creamery in cans only; that is received at the creamery by his men, measured, put in a vat to be cooled; that after it is cooled, it is bottled, though some of it is shipped out in cans.

On page 65, he said that the washing of these cans and bottles goes into a wooden trough down into the stream, and the washing consists of the milk and water, "whatever comes out of the cans." He further testified that about sixty cans and 1200 bottles are washed at the creamery each day. He further testified on page 65, that he gets water for his creamery from a spring on the side of a mountain, from which a pipe runs down to the building, which pipe is about one inch in diameter, and is running continually twenty-four hours. This witness further testified on page 71 that the creamery building was about one hundred and thirty-five feet long, and that he filled about 1,200 bottles every day, besides shipping a lot of milk cans; that there are no toilet facilities on the premises; that he washes a like number of cans and bottles every day; that the entire floor of the creamery is wet until it is cleaned up, and when it is cleaned up, all the sweepings go into the drain.

Harry Bramley, a witness sworn on behalf of the defendant, testified (p. 73), that he was a sanitary expert, and had been connected with a New York Board of Health for twenty years, and that the color of the water discharged into the stream was a light, milky color.

On page 76, the witness was asked his opinion as to whether the discharge from the creamery would tend to pollute the supply of water at the intake, some ten miles below, and answered that he thought the possibility was remote; that the character of the drainage from the creamery was such that it would probably cleanse itself before it reached that point. The following question, however, was put to the witness:

"Q. Suppose this sewage, as you call it, contains intestinal bacilli, would that be likely to go down and multiply through ten miles of water?

"A. They have been known to travel as far as that, yes.

"Q. They have been known to travel as far as that, and further, even?

"A. I think so.

"Q. Is it possible, without a bacteriological examination to ascertain or determine whether, at the point where this so-called sewage empties into the stream, it corrupts or pollutes the water of this stream?

"A. Well, that question is rather a hard one to answer, directly. In the first place, it is a question of what you mean by impure. Anything that is added to the water—any foreign matter—impairs the purity of water, of course, but whether it renders it dangerous to life and detrimental to health is another question."

On page 79, this question was put to the witness:

"Q. As a matter of fact, in your opinion, is not the substance which is flowing out of that pipe a substance which will of itself, you knowing the constituents of it, know where it comes from, pollute or impair the quality of the water, did you not say that it did?

"A. At that point, I think yes.

"Q. At the point where it goes in?

"A. Yes."

On page 80, the witness was asked by the Court:

"Q. Would you regard it as safe to use as drinking water the water of the stream at the point where this drain enters it?"

"A. No, I should not consider it safe."

On page 81, the witness was asked:

"Q. Is it not a fact that the mere washing of hands in water which runs off from a basin, where a person has washed his hands, is sewage within the general acceptance of that term?"

"A. I think so.

"Q. Isn't that a substance which would of itself impair, or tend to impair, the quality of a potable water?"

"A. Anybody who came in contact with persons having contagious diseases and washed their hands in a sink would be liable to contaminate the water.

"Q. And, therefore, there is a liability of the placing of disease germs in water used for washing the human person?"

"A. Yes."

The Potable Water Act of 1899 has received judicial construction in this State. In the case of *State Board of Health vs. Diamond Paper Mills Company*, 18 *Dickinson*, p. 111, which was a somewhat similar case to the present one, being on a bill to prohibit the Paper Company from discharging its refuse into the Rahway river, Vice-Chancellor Stevens said:

"The prohibition is against the placing in the waters of the river anywhere above the point from which the city obtains its supply any factory refuse which will either impair, or tend to impair, its quality,"

and cites, in support of this position, the earlier case of

State vs. Wheeler, 15 Vr. 88. The Vice Chancellor then, continuing, says:

"I do not understand that there is any question made by the defendant that the purity and potability of the waters of the river are impaired at the point of discharge. It is contended that the solids held in suspension in the water as it passes out of the raceway into the river soon sink to the bottom, leaving the water as pure as it was when it entered the mill, but it is not seriously pretended that the waste water at the point of discharge is either pure or potable. The bottled samples demonstrate that it is not.

"It would seem plain, then, that an injunction should issue. The city of Rahway is not shown to have been injured. But this is a bill filed, not by the city of Rahway, which is not a party, but by the State Board of Health."

The Vice-Chancellor then quotes approvingly from the opinion of Sir George Jessal, Master of the Rolls, in *Attorney General vs. Cockermoth, local board*, L. R. 18 Eq. Case 172, as follows:

"I think the meaning is pretty plain and it means this: "You shall not send your sewage into a natural stream until you have made it wholesome water—until you have got rid of all the noxious matter in it." That, I think, is the effect of the clause, and, if that is the meaning, the next point is, what water is it that is not to be affected or deteriorated? You are not to affect or deteriorate the water in the river; what portion of the water? I cannot accede to the argument of the defendants that it merely means that you must not poison the whole river. For a river may be hundreds of miles long. I think it must mean that you are not to affect or deteriorate the water in the river at the point where the outfall is; and that if you, at that point, pollute

the water, you shall not enjoy the privilege given you by the act of parliament of making an out-fall outside of your district.' ”

An injunction issued in this case against the Paper Company, and on appeal to the Court of Errors and Appeals, the decree below was affirmed on the opinion of the Vice-Chancellor. (See *19 Dickinson*, p. 793.)

In the case now under consideration, there can be no question that the substance which was permitted to flow from the creamery of the defendant into the Pequannock river did in fact pollute the waters of that river at the place where it entered, and it would seem as if this whole question is at rest, by reason of the decision in the Diamond Paper Mills Company case. The expert witness, Mr. Bramley, produced by the defendant, admitted that the substance flowing into the Pequannock River would pollute and impair the quality of the water at the point where it went in.

Recently, however, a decision has been rendered by Vice-Chancellor Leaming, in the case of *The State, at the relation of the Board of Health of the State of New Jersey, vs. Borough of Vineland* (see opinion in printed case, No. 3, on present list), in which the Vice-Chancellor arrived at the conclusion that the State Sewerage Act of 1899 (*P. L. 1899*, p. 536), as amended in 1900 (*P. L. 1900*, p. 113), operated to repeal in its entirety the Potable Water Act of 1899. The question as to whether the provisions of the Potable Water Act were in any wise repugnant to those of the State Sewerage Act was not discussed before Vice-Chancellor Stevenson by either the counsel for the State or for the defendant, it not being considered by the counsel for the State that the question had any bearing whatsoever upon the matter here presented, for the reason that the

filtration beds at Vineland, the use of which was sought to be restrained, had been located and approved of by the Sewerage Commissions. It would seem, however, that since the Vice-Chancellor, in the Vineland case, has declared that, in his opinion, the Potable Water Act of 1899 is repealed in its entirety by the State Sewerage Act of 1900, and as that question was not raised in this case in the court below, but in all probability will be raised here, it is thought proper to deal with it at this time. There was no intention on the part of counsel to withhold from the Vice-Chancellor any question which it was thought proper to present for his consideration, and it would seem proper, therefore, that this Court should now re-examine and consider the whole case on appeal. *Woodward vs. Bullock*, 12 C. E. Green 507.

Without going into the question of whether the Potable Water Act is repugnant in any of its features to the State Sewerage Act, it is only necessary to call attention to the fact that what the State Sewerage Act seems to relate to is sewage or other polluting matter which flows from a sewer, drain or system of sewers into any of the waters of this State.

An examination of the earlier act discloses that its sole object is to secure the purity of the public supply of potable water for domestic use, while the later act, as amended, indicates by its title that it is an act to prevent the pollution of the waters of this State by the establishment of a State Sewerage Commission, and authorizing the creation of sewerage districts and district sewerage boards, and prescribing, defining and regulating the powers and duties of such commission and such boards.

Section 5, of this last-named act, authorizes the commission to investigate the various methods of sewage

disposal, in order to make proper recommendations in regard thereto, and provides for the giving of notice to any person, corporation or municipality found to be polluting waters, and that, prior to a time to be fixed by the commission, which shall not be more than five years from the date of said notice, the person, corporation or municipality must cease to pollute said waters and make such disposition of their sewage or other polluting matter as shall be approved by the State Sewerage Commission.

Section six makes it unlawful for any person, corporation or municipality to "build any sewer, drain or sewerage system from which it is designed that any sewage or any other article or deleterious matter, solid or liquid, shall flow into any of the waters of this State so as to pollute or render impure said waters, except under such conditions as shall be approved by the State Sewerage Commission." A proviso to this section excepts existing sewers unless the person or municipality controlling said sewers shall be served with a notice to cease pollution.

Section seven contains a prohibition against any person, corporation or municipality building or causing to be built or operated any plant for the treatment of sewage or other polluting substance, except under such conditions as shall be approved by the State Sewerage Commission, to whom plans must first be submitted.

Section eight provides that it shall be unlawful for any person, corporation or municipality, after the date specified in the notice specified in section five, "to permit or allow any sewage or other polluting matter to flow into said waters from any sewer, drain or sewerage system, except under such conditions as shall be approved by the State Sewerage Commission."

Section nine authorizes an application to the Court of Chancery for an injunction "to prevent the violation of the provisions of this Act."

It is to be noted that section six prohibits the building of any sewer, drain or sewerage system from which sewage is to flow into the waters of this State, except under such conditions as shall be prescribed by the Commission; section seven to the building or operation of a plant for the treatment of sewage, and not to sewers themselves, except under certain conditions, and section eight to existing sewers, the flow from which, after notice as prescribed in section five, may be entirely prohibited, if the conditions approved by the Commission under which the sewage may be discharged in the waters be not complied with.

The whole purport and design of this so-called amendatory Act of 1900, as even a cursory examination will show, is to prevent the pollution of the waters of this State by any substance which flows from a sewer, drain or system of sewers or sewerage plants. Nowhere in the act apparently is there any power to prevent the pollution in any other manner of the waters of this State. While it is true that this Act of 1900 does confer upon the Sewerage Commission power to apply to the Court of Chancery for an injunction to restrain any person, corporation or municipality from violating any of the provisions of said act, still, the violations to be restrained would be such only as occurred by sewage or other polluting matter flowing into waters from a sewer, drain, sewerage system or sewerage plant, and not to polluting matter which could get into a stream of potable water in any other manner. If, therefore, this latter act is limited to such matters as may flow through a sewer, drain, system of sewers or sewerage

plant, how are polluting matters, such as chemicals and dyes, which are discharged from factories and the like into potable water, to be restrained? Certainly not by the Act of 1900, for that act has its limitations, as has been indicated.

It is needless to attempt to indicate the many ways in which the waters of a stream used for potable purposes may be polluted other than from a sewer, drain, sewerage system or sewerage plant. But one or two illustrations will suffice. For instance, if a person should locate a pig-pen on the banks of a stream of potable water, the use of such a pig-pen could not be restrained under the Act of 1900, but could be under the Potable Water Act. So, also, if a person should allow the waste liquids from the sink in his dwelling to flow into a stream of potable water, that apparently could only be restrained under the Potable Water Act, and so with overflowing vaults and the like, all of which could be restrained under the Potable Water Act.

Further than this, the Potable Water Act prohibits the placing or depositing upon the *ice* of any river, brook, &c., any sewage, drainage, domestic refuse, excremental or other polluting matter of any kind whatsoever, and further prohibits the placing of any such polluting matter upon the *banks* of any river, brook, &c. Certainly, violations of this kind could not be prevented by the Sewerage Act.

It is respectfully submitted that in the case now under consideration the evidence clearly shows that the matter which was allowed to flow from the creamery of the defendants into the waters of the Pequannock river did, in fact, pollute the waters of that river at the point where such polluting matter went in, and that this case is controlled absolutely by the case of the *Diamond Paper*

Mill Company, supra, and that the Act of 1899, so far, at least, as this case is concerned, is not in any wise repugnant to the State Sewerage Act, and that the two acts may stand.

The decree of the Court of Chancery should, therefore, be affirmed, with costs.

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Attorney-General.

Court of Errors and Appeals

STATE OF NEW JERSEY, AT AND
BY THE RELATION OF THE
BOARD OF HEALTH OF THE
STATE OF NEW JERSEY,
Complainant-Respondent,

vs.

GEORGE IHNKEN,
Defendant-Appellant.

On Appeal
from Chancery.

BRIEF FOR DEFENDANT-APPELLANT.

This is an appeal from a decree of the Court of Chancery, advised by Vice-Chancellor Stevenson, which granted an injunction restraining the defendant from permitting the waste water from the washing of cans and bottles and the cleansing of floors in his creamery, located at Stockholm, Sussex county, New Jersey, to be conveyed from said creamery to a tributary of the Pequannock river, and from placing in, or discharging into the Pequannock river, or into any tributary or branch thereof, any sewage, drainage, domestic or factory refuse, excremental or other polluting matter of any kind whatsoever, which, either by itself or in connection with other matter, will corrupt or impair, or tend to cor-

rupt or impair, the quality of the water of said Pequannock river, or of any tributary or branch thereof, and from violating the provisions of Chapter 41, Laws of 1899.

FACTS.

Some fifteen years ago (Case p. 63, lines 30 to 40) the defendant erected, at Stockholm, Sussex county, on land belonging to the New York, Susquehanna and Western Railroad Company and adjoining the railroad tracks of that company (Case p. 64, lines 1 to 10), and occupied by the defendant under a verbal lease, a building about one hundred and thirty five feet long and about twenty feet in width (Case, p. 64, lines 10-20). This building he provided with sanitary machinery, consisting of milk coolers, milk pumps, filters, bottle washing machines, bottling tables and other utensils used in the creamery business. The defendant owns this building and machinery (Case p. 69, lines 10 to 20). The building has been in continuous use for the purposes for which it was designed from the time it was built. It is divided into three rooms, one a room for cooling milk, and another for washing milk bottles and cans, and for filling milk bottles. In the cooling room there is a tank or pool (Case p. 73, lines 30 to 40) in which cans of milk, brought by farmers to the creamery, are allowed to stand to cool (Case p. 74, lines 1 to 10). In the room where bottles and cans are washed and the bottles filled with milk, there are three tubs. (Case p. 74, lines 1 to 10).

On the mountain side there is a spring

from which a pipe an inch in diameter conveys water to the building (Case p. 65, lines 30 to 40). From this inch pipe water is discharged continuously during the twenty-four hours of the day into the cooling tank and into the wash tubs (Case p. 66, lines 1 to 20). It appears that the cooling tank is provided with an overflow, so that the water is kept constantly changing. The overflow from this tank runs into a drain pipe. The bottles and cans are cleaned with water heated with live steam (Case p. 65, lines 20 to 30), and when the washing of the cans and bottles is completed, the tubs in the washing room are discharged and the floors washed, the discharge from the tubs and the washing of the floors being likewise permitted to flow into the aforesaid drain into which the water from the cooling tank is continually running Case p. 80, lines 20 to 30). Some twelve hundred bottles and sixty cans are washed daily (Case p. 71, lines 20 to 30). The drain is a box-like wooden trough, perhaps four by four or six by six inches (Case p. 54, lines 20 to 30). This trough conducts the waste water a short distance from the creamery building, and there the water is permitted to fall upon the ground and runs in a little ditch that has been dug for it, or which it has dug for itself, to the Pequannock river, the distance from the end of the trough to the Pequannock river being about seventy-two feet (Case p. 41, lines 10 to 20).

The Pequannock river, which is the stream into which the discharge from the defendant's creamery empties, has, in general, a regular, constant, rapid flow. (Case p. 25, lines 20 to

30). The stream empties into the Oak Ridge reservoir, some three or four miles below where the discharge from the defendant's creamery enters the stream, and from the Oak Ridge reservoir the water flows along the river some six or seven miles to the Macopin Intake, and from the Macopin Intake the water is conveyed to the city of Newark by pipes. The water is exposed to the action of light and air some eleven and one half or twelve miles from the point of discharge at the defendant's creamery, to the Newark pipe lines, and during this distance the water passes most of the way through a rocky bed, rather twisting and turning, and, in parts, rapid (Case p. 25, lines 20 to 40, p. 26 and p. 27, lines 1 to 10).

The output from the creamery is shipped in cars to Brooklyn, and the empty cans and bottles returned to the creamery from Brooklyn, where they are washed before being re-filled (Case p. 64, lines 20 to 40). After the cans are washed they are returned to the farmer, who again fills them, bringing the milk to the creamery, where it is cooled and prepared for shipment as above stated.

This condition of affairs went on openly and notoriously, and in the full view of all interested, ever since the creamery was erected.

On March 17, 1899, Chapter 41, Laws of 1899, was passed (case, pp. 12 to 15). This act prohibited sewage, factory refuse or other polluting matter being discharged or placed in any stream from which any municipality received a water supply for domestic use, above the point where such water is taken.

On June 29, 1905, an inspection of the de-

fendant's creamery was made by the officers of the State Board of Health, and the defendant was served with written notice by the State Board of Health, under date of July 5, 1905 (case, p. 2, lines 11 to 30), that if action was not taken by him to prevent the discharge of the waste liquids from his creamery into the stream the facts relating to the inspection would be placed in the hands of the Attorney General, for such action as the law provides.

The defendant admits that notwithstanding this notice he continued to permit the waste water from his creamery to be discharged into the stream in the same manner that it was discharged prior to the receipt of the notice.

I.

The Court of Chancery had no jurisdiction to make the decree appealed from.

The fourth section of Chapter 41 of the Laws of 1899 provided that it should be lawful for the State Board of Health to file a bill in the Court of Chancery, in the name of the State, on the relation of such Board, for an injunction to prohibit the further violation of the acts forbidden by this law. It was under this provision that the bill in this cause was filed, and, as pointed out by Vice Chancellor Stevens, in *State Board of Health vs. Diamond Mills Paper Company*, 63 N. J. Eq., p. 111 (p. 116), we are dealing, not with a jurisdiction ordinarily exercised by the Court of Chancery, but with a jurisdiction conferred by statute. Vice Chancellor Leaming, in his decision in *Board of Health vs. Vineland*, 65 Atl. Rep., p. 174, also states that the jurisdiction of the Court of

Chancery is dependent upon the provisions of the act which, by its terms, confers upon the Court of Chancery a special statutory jurisdiction in this class of cases.

Subsequent to the approval of Chapter 41 of the Laws of 1899, and on March 24, 1899, Chapter 210 (p. 536) Laws of 1899, was approved. This latter act, as pointed out by Vice Chancellor Leaming, was amended by Chapter 72 (p. 113), Laws of 1900, by a re-enactment of the entire act of which it was an amendment, with some minor changes and several important additions. As this Court will doubtless carefully examine the reasoning found in the opinion of Vice Chancellor Leaming a resume thereof here seems unnecessary. But it is respectfully submitted that the decision makes it manifest that in passing the act of 1900 "the legislative intent was to adopt an entirely new system for the protection of the public waters of the State and to substitute the provisions of the new act for those of the old originally designed for the same purpose, and that the latter act operates to repeal the earlier act in its entirety."

It is true that this point was not in any way suggested at any time while the case at bar was pending before Vice Chancellor Stevenson and was not considered by him. The decree appealed from was made May 14, 1906, and the appeal therefrom was taken May 19, 1906, while the decision of Vice Chancellor Leaming was not made until November 13, 1906. The point now made was not, however, purposely withheld from Vice Chancellor Stevenson, but was overlooked until the decis-

ion of Vice Chancellor Leaming. This Court has decided that where the entire proceedings are before it for review there can be no reason, where there is no intentional omission and the parties have acted in good faith, why the whole case should not be examined and determined on appeal. *Woodward v. Bullock*, 12 C. E. Gr. 507.

This question was indicated by Vice Chancellor Stevenson in his opinion in the case at bar, so that there is no surprise to the complainant, and in as much as the complainant has taken an appeal from the decision of Vice Chancellor Leaming, it must be presumed to be fully prepared to argue this point.

Jurisdiction may, it is respectfully submitted, be inquired into at any time. Certainly if there were no jurisdiction in the Court below there was not merely an error in the consideration or determination of the case by that Court, but an absence of any right to consider or determine the case; and if the Court of Chancery had no jurisdiction to consider or determine the case, this decree, adjudicating thereon, should not be permitted to stand,

II.

Chapter 41 of the Laws of 1899 contains an unwarranted and arbitrary discrimination against the defendant.

The first section of the act provides that it shall not be held to apply to any municipality of the State which, at the date of the passage of the act, has a public sewage or drainage system discharging its sewage or drainage into

any such river, brook, stream, lake, well, spring or other reservoir as is referred to in the act.

It would seem a waste of time to endeavor to convince this Court that sewage or drainage discharged from public sewers or drains into potable water is less deleterious to public health than the discharge from the defendant's creamery. And if any municipality which, at the date of the passage of the act, has a public sewage or drainage system discharging into potable water, may continue to discharge therein without offending against the provisions of the act, manifestly to prevent the defendant, who was discharging his drainage into the stream at the date of the passage of the act, from continuing to discharge as before, constitutes an unwarranted and arbitrary discrimination against him.

III.

Inasmuch as a municipality, which, at the date of the passage of the act, has a public sewage or drainage system discharging its drainage into potable water, is immune against proceedings under the act and entitled to the privilege of continuing to so discharge its sewage or drainage, then the act forbidding the defendant from the same privilege and immunity, is contrary to the provisions of Section 2, Article 4 of the United States Constitution.

IV.

For the reasons assigned under Point II, the act denies to the defendant the equal protection of the laws, and is therefore repugnant to Article 14 of the Constitution of the United States.

V.

There was no such proof presented to the Court as warranted it in making the decree appealed from.

Any right of the State to prevent the introduction of foreign substances into streams from which potable waters are taken is founded on the police power of the State, and the police power can be invoked only to prevent injury to public health. The State could not, for instance, require the owners of the soil on the banks of the stream to erect retaining walls to prevent the soil from falling into the water, nor could the State require the owners of the soil to maintain screens to prevent leaves from getting into the stream.

Before the State can enjoin the defendant from discharging the waste water from his creamery into the stream it must show that the water so discharged is polluted, in the sense that it is so unclean as to be detrimental to the public health. Indeed, the bill expressly charges that the waste water from the defendant's creamery renders the stream injurious to health (Case, p. 1, lines 30 to 40).

There is no proof that the discharge from the defendant's creamery makes the water of the stream injurious to the public health.

Water may be filled with bacteria and still have no disease breeding germs in it (Case, p. 35, lines 10 to 20). The disease breeding germs are from the intestinal tract (Case, p. 38, lines 10 and 11). Bacteriologists, therefore, make their analyses for the purpose of ascertaining the presence of what is known as the colin ba-

cilli (Case, p. 8, lines 30 to 40). This bacilli comes from the intestinal tract (Case, p. 82, lines 1 to 10) and its presence indicates that intestinal refuse is getting into the stream.

Of course, should a physical examination of the banks of a stream show that privies were being discharged into the water a bacteriological examination to ascertain whether intestinal refuse was being deposited would be unnecessary, but where it is not apparent that discharges from privies are being carried into the stream the necessity of a bacteriological test would appear manifest. The learned Attorney General, in the course of the trial, stated that he proposed to call a witness to show that such substance as that which the defendant was discharging into the stream would contain harmful bacteria, and to show the lack of necessity for a bacteriological test, but evidently the person by whom he proposed to show these things, was unable to give such testimony, as he was never called (Case, p. 62, lines 30 to 40). And the learned Attorney General admitted that there was nothing about this discharge that showed bacteriological contamination (case, p. 22, lines 30 to 40).

It was suggested, however, that it was dangerous to place milk containers in the cooling tank because such containers were apt to be smeared with filth, with excrement and with material from dirty human hands (case, p. 52, lines 1 to 10; p. 32, lines 10 to 30); but there was nothing before the Court from which the Court could find as a matter of fact that any cans or other milk containers placed in this tank were so smeared.

The witness Mitchell testified that he went among the bushes in the vicinity of the creamery and there found excremental matter, and he says that there was great liability, almost a certainty, that it would be tracked more or less into the creamery. It must be remembered, however, that this creamery building is alongside a railroad track and that the excrement might have been deposited by the employees of the railroad company and not by the employees of the defendant. There is a travelled road leading up to the creamery (Case, p. 58, lines 20 to 30) and the two men employed by the defendant (Case, p. 71, lines 10 to 20) would hardly leave this public road and travel through the bushes in order to reach the creamery.

Animals driven along a public road would, in all probability, deposit excrement on such road and this excrement might adhere to the shoes of a foot passenger. From those shoes it might be transferred to the grass of a farm and rain might wash it from the grass and carry it into the stream. Could the farmer be, therefore, enjoined from permitting rain-water from his land to flow into the stream?

It is respectfully submitted that a possibility that a discharge into a stream may carry excremental matter—the only matter in which disease-breeding germs are found—is not sufficient for the exercise of the strong arm of the Court of Chancery. It may be that excrement—human or animal—may adhere to the outside of milk-containers or to footwear; it may even be, as suggested by Dr. Mitchell (Case, p. 53, lines 20-30) that there are human

beings so filthy as to permit human excrement to soil their hands; it may be that if milk-containers smeared with excrement be placed in a cooling pool, or if footwear to which excrement has adhered be worn in a creamery, or if human hands, soiled with excrement, be washed and the water from such pool, or from the cleansing of the floors of such creamery, or in which human hands are so washed, be permitted to flow into a stream of potable water, such a discharge would be dangerous to public health, but it is respectfully submitted that it is incumbent on whoever charges another with conduct inimical to public health to prove such charges and that such charges are not proved by mere statements that *if* milk-containers are smeared with excrement, or that *if* excrement adheres to the footwear or hands of persons employed in a creamery then there is danger to the public health.

VI.

The State may, possibly, under its police power, prevent a citizen from so using his property as to injure the public health, but unless it be shown that what the citizen is doing is inimical to public health the State has no right to interfere. The land hereabouts is rocky. There is no other practicable method of disposing of the waste water than to permit it to reach the stream, and to require the defendant to so dispose of the waste water from his creamery that it will not reach the stream means that the defendant shall not use his property at all and that he shall be deprived

of the beneficial use and enjoyment of his property.

VII.

As before stated, the defendant has discharged the waste water into the stream in the same manner as is now complained of for some fifteen years. If the complainant has any right to the relief provided by Chapter 41 of the Laws of 1899, it has had such right since March, 1899. The fact that no complaint was made until July, 1905, and that no attempt was made to restrain the defendant until the filing of the bill of complaint herein would seem to justify the conclusion that the injunction is sought not to preserve the stream from a discharge inimical to public health but to deprive the defendant of the use of his property and drive him away from this watershed without compensation and without due process of law.

All which is respectfully submitted.

JAMES R. BOWEN,
Solicitor of defendant.
WILLIAM C. CUDLIPP,
Of counsel.

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BILL OF COMPLAINT.

In Chancery of New Jersey.

*To his Honor, William J. Magie, Chancellor of the State
of New Jersey:*

Humbly complaining shows unto your Honor, the State of New Jersey, at and by the relation of the Board of Health of the State of New Jersey:

1. That George Ihnken is the owner and occupier of a tract of land and premises located at Stockholm, in the County of Sussex, this state; that passing through or very near the said premises owned and occupied by said George Ihnken is a stream of water, having a regular and constant flow; which said stream is one of the tributaries of the Pequannock river and empties therein. 10

2. That from said Pequannock river, and below the point where said tributary empties therein, the City of Newark, in the County of Essex, this state, obtains its public supply of water for the domestic use of its citizens and inhabitants. 20

3. That on said premises owned and occupied by said George Ihnken is a creamery; that the waste water from the washing of cans and bottles in said creamery, and the cleansing of the floors of said creamery is conveyed from said creamery through a wooden trough to said tributary of said Pequannock river, and thence flows into said Pequannock river, which said Pequannock river is at a distance of seventy-two feet from the end of said trough; that the waste water so permitted to be discharged into said tributary of said Pequannock river tends to corrupt and impair, and in fact does corrupt and impair the quality of the water of said Pequannock river and renders the same injurious to health, and tends to pollute, and in fact does pollute, the public supply of water for the domestic use of the citizens and inhabitants of said City of Newark. 30

4. That on or about the fifth day of July, nineteen hundred and five, the Secretary of the Board of Health 40

of the State of New Jersey, addressed a letter to said George Ihnken, of which the following is a true copy:

"July 5, 1905.

Mr. George Ihnken,
194 19th Street,
Brooklyn, N. Y.

Dear Sir:—

10 An inspection made by officers of this board, June 29, 1905, of the creamery building owned and conducted by you, located in Stockholm, Sussex County, New Jersey, shows that waste liquids from the creamery building are carried by a wooden drain to a ditch which discharges into a stream supplying the City of Newark with potable water, and that the waters of said stream are contaminated thereby.

In accordance with the provisions of chapter 41 of the laws of 1899 you are hereby notified to cause said waste liquids to be disposed of in a manner which will
20 prevent the further contamination of the waters of said stream.

A reinspection of the said premises above named will be made ten days from this date, and if action has not then been taken for the prevention of the discharge of waste liquids from said premises into said stream the facts relating to this inspection will be placed in the hands of the Attorney General for such action as the law provides.

Very respectfully,

HENRY MITCHELL,
Secretary."

30

That notwithstanding said letter the said George Ihnken permits the waste water from the washing of cans and bottles in said creamery, and the cleansing of the floors of said creamery, to be conveyed from said creamery through a wooden trough to said tributary of said Pequannock river, and has utterly failed to refrain from said acts, or to adopt such measures or plans whereby the waters of said tributary of said Pequannock river shall cease to be corrupted, impaired or rendered injurious
40 to health.

5. That the matters and things hereinabove alleged bring the said George Ihnken directly within and subject to the provisions of an act of the legislature of the State of New Jersey, entitled, "An Act to secure the purity of the public supplies of potable waters in this state," approved March seventeenth, eighteen hundred and ninety-nine, and the said George Ihnken, in permitting the waste water from the washing of cans and bottles in said creamery, and the cleansing of the floors of said creamery, to be conveyed from said creamery through a wooden trough to said tributary of said Pequannock river directly violates the provisions of said act. 10

All of which acts and doings of said George Ihnken are contrary to equity and good conscience.

In consideration whereof, and forasmuch as adequate relief in the premises cannot be had at and by the strict rules of the common law and can only be obtained in this Honorable Court where matters of this nature are properly cognizable and relievable.

To the end therefor that the said George Ihnken may, without oath, oath being hereby expressly waived, full, true and perfect answer make to all and singular the matters aforesaid as fully and particularly as if the same were here again repeated and the said defendant distinctly interrogated thereto, and that the said defendant may be enjoined, by the State's writ of injunction, from permitting the waste water from the washing of cans and bottles in said creamery, and the cleansing of the floors of said creamery, to be conveyed from said creamery through a wooden trough to said tributary of said Pequannock river, and from further violating the provisions of said act of the legislature, entitled "An Act to secure the purity of the public supplies of potable waters in this state," approved March seventeenth, eighteen hundred and ninety-nine, and that such further relief may be had in the premises as the nature of the case may require and as shall be agreeable to equity and good conscience. 20 30

May it please your Honor, the premises considered, to grant unto your orator not only the State's writ of injunction as aforesaid, but also the State's writ of subpoena issuing out of and under the seal of this Honorable Court, commanding said George Ihnken, at a certain day 40

and under a certain penalty therein to be expressed, to be and appear before your Honor, in this Honorable Court, then and there to answer the premises and to stand to, abide by and perform such decree as to your Honor shall seem meet, and as shall be agreeable to equity and good conscience.

ROBERT H. MCCARTER,

10 Attorney General of the State of New Jersey,
Solicitor and Counsel for the Relator, the
Board of Health of the State of New Jersey.

ANSWER.

The answer of GEORGE IHNKEN, Defendant, to the Bill of Complaint of the State of New Jersey, at and by the relation of the BOARD OF HEALTH of the STATE OF NEW JERSEY, Complainant:

20 The said defendant, now and at all times hereafter, saving and reserving unto himself all and all manner of benefit and advantage of exception that can or may be had or taken to the many errors, uncertainties and imperfections in the said Bill of Complaint contained, for answer thereto or unto so much and such parts thereof as he is advised it is material or necessary for him to make answer unto, answering says:

1. He admits that he is the occupier of the tract of land and premises located at Stockholm, in the County
30 of Sussex, and State of New Jersey, mentioned in the paragraph or subdivision of the bill of complaint numbered 1.

2. He denies that he is the owner of said tract of land, but admits that he is the lessee thereof.

3. He denies that passing through or very near the said premises is a stream of water having a regular and constant flow, but he admits that a stream of water having a regular and constant flow passes alongside of
40 the aforesaid land and premises.

4. This defendant further answering says that as to whether said stream is one of the tributaries of the Pequannock river and empties therein, this defendant does not know and has no information, save by said bill of complaint, and he therefore leaves the complainant to make such proof thereof as it may be advised is material.

5. This defendant further answering says that as to whether from said Pequannock river and below the point where said alleged tributary thereto empties therein the City of Newark, in the County of Essex, this State, obtains its public supply of water for the domestic use of its citizens and inhabitants, this defendant does not know and is not informed, save by said bill of complaint, and he therefore leaves the complainant to make such proof thereof as it may be advised is material. 10

6. This defendant further answering admits that on the premises aforesaid is a creamery and that waste water from the washing of cans and bottles in said creamery and the cleansing of the floors of said creamery is conveyed from said creamery through a wooden trough to the aforesaid stream of water which runs alongside of said premises. 20

7. This defendant further answering says that as to whether the waste water from the washing of cans and bottles in said creamery and the cleansing of the floors of said creamery flows into said Pequannock river this defendant does not know and is not informed, save by said bill of complaint, and he therefore leaves the complainant to make such proof thereof as it may be advised is material. 30

8. This defendant further answering denies that said Pequannock river is at a distance of seventy-two feet from the end of the trough aforesaid.

9. This defendant further answering denies that the waste water from the washing of cans and bottles in said creamery and the cleansing of the floors of said creamery tends to corrupt and impair and, in fact, does corrupt and impair the quality of the water of said Pequannock 40

river and renders the same injurious to health and tends to pollute and, in fact, does pollute the public supply of water for the domestic use of the citizens and inhabitants of said City of Newark.

10 10. This defendant further answering admits that on or about the 5th day of July, 1905, the Secretary of the Board of Health of the State of New Jersey addressed to this defendant a letter of which a copy is set forth in the paragraph or subdivision of said bill of complaint numbered 4.

11. This defendant further answering admits that notwithstanding said letter this defendant permits the waste water of said creamery to be conveyed from said creamery through a wooden trough to the aforesaid stream of water.

20 12. This defendant further answering admits that since the receipt by him of the letter aforesaid he has not refrained from permitting the waste water from the washing of cans and bottles in said creamery and the cleansing of the floors in said creamery to be conveyed from said creamery through a wooden trough to the stream of water aforesaid. But this defendant denies that the waste water from the washing of cans and bottles in said creamery and the cleansing of the floors in said creamery corrupt, impair or render injurious to health the public supply of water for the domestic use of the citizens and inhabitants of the said City of Newark.

30 13. This defendant further answering denies that any acts or omissions of this said defendant bring this defendant directly within and subject to the provisions of an act of the Legislature of the State of New Jersey entitled: "An Act to Secure the Purity of the Public Supplies of Potable Waters in this State," approved March 17, 1899.

40 14. This defendant further answering denies that in permitting the waste water from the washing of cans and bottles in said creamery and the cleansing of the floors of said creamery to be conveyed from said creamery

through a wooden trough to the aforesaid stream of water which so, as aforesaid, runs alongside of said tract of land, this defendant directly violates the provisions of the said Act of the Legislature of the State of New Jersey.

15. This defendant further answering says that fifteen years or thereabouts prior to the filing of the said bill of complaint, the New York, Susquehanna and Western Railroad Company, which then was and ever since has continued to be and now is the owner of said tract of land, leased said tract of land to this defendant to be held and occupied by this defendant until said New York, Susquehanna and Western Railroad Company should require said tract of land for railroad purposes, and this defendant thereupon entered into possession of said tract of land and has remained in possession thereof ever since and now is in possession thereof. 10

16. This defendant further answering says that upon so entering into the possession of said tract of land this defendant erected, at great cost and expense, buildings for the purpose of carrying on the business of a creamery and this defendant also installed in said buildings, at great cost and expense, apparatus and machinery for use in connection with such creamery business. 20

17. This defendant further answering says that when this defendant so, as aforesaid, entered into possession of said tract of land, water from a spring passed over said tract of land into the said stream of water which so, as aforesaid, passes alongside of said tract of land and that the said stream which so, as aforesaid, passes alongside of said tract of land is the natural means for draining said tract of land. 30

18. This defendant further answering says that by reason of the rights of this defendant in said tract of land this defendant became and ever since has been and now is entitled to the reasonable use and enjoyment of the water of the said stream which so, as aforesaid, passes alongside of said tract of land.

19. This defendant further answering says that for fifteen years or thereabouts immediately preceeding the filing of said bill of complaint this defendant continuously and uninterruptedly conveyed from said creamery through a wooden trough to the said stream of water which so, as aforesaid, passes alongside of said tract of land the waste water from the washing of cans and bottles in said creamery and the cleansing of the floors of said creamery, and that this defendant has ever since continued and still does continue so to do, and that if any
 10 injury is occasioned or produced by the discharge of such waste water into said stream, it has during all said time been of the same grade and character that it is now.

20. This defendant further answering says that the waste water from the washing of cans and bottles in said creamery and the cleansing of the floors of said creamery has been for the last fifteen years or thereabouts continuously and uninterruptedly conveyed from said creamery through a wooden trough to said stream
 20 of water which so, as aforesaid, passes alongside of said tract of land with the knowledge and acquiescence of all parties now having or which at any time during said period have had any interest in said stream of water.

21. This defendant further answering says that if said City of Newark or its citizens or inhabitants ever acquired any right to use the water of said stream for domestic use, this defendant was discharging the waste water from the washing of cans and bottles in said creamery and the cleansing of the floors of said creamery
 30 through a wooden trough into said stream when said City of Newark, its citizens and inhabitants acquired such rights, if ever, and that any rights acquired by said City of Newark, its citizens or inhabitants to use the water of said stream for domestic purposes were acquired with the full knowledge of the fact that when such rights were acquired, this defendant was discharging such waste water into said stream and claimed the right so to do.

22. This defendant further answering says that from the time the said City of Newark, its citizens and in-
 40 habitants acquired, if they ever acquired, the right to

use the water of said stream for domestic purposes down to the present time, this defendant has continuously and uninterruptedly, with the knowledge and consent of said City of Newark, its officers, agents, citizens and inhabitants, discharged the waste water from said creamery into said stream in the same manner as such waste water was discharged prior to the acquirement by said City of Newark, its citizens and inhabitants of any rights in said stream and that no objection was ever made to the discharge of such waste water into said stream until the receipt by this defendant of the letter set forth in the paragraph or subdivision numbered 4 of said bill of complaint. 10

23. This defendant further answering says that in the conduct of the business of said creamery this defendant has contracted with farmers in the vicinity of said creamery to take from said farmers milk amounting to two thousand quarts a day on the average until the last day of March, 1906, and that if this defendant be enjoined from discharging the waste water of said creamery into said stream, he will suffer great and irreparable loss and injury, for the reason that he cannot conduct said creamery without discharging such waste water into said stream. 20

24. This defendant further answering says that the discharge of the waste water from said creamery into said stream is a reasonable use of said stream by this defendant for legitimate purposes and that the water which this defendant uses in washing cans and bottles in said creamery and in cleansing the floors thereof, is the water from the spring aforesaid which comes over said tract of land and is discharged into said stream. 30

25. This defendant further answering says that the enjoining of this defendant from discharging waste water from said creamery into said stream will deprive him of the beneficial use and enjoyment of his property in said tract of land and creamery as much as the taking and appropriation of the property itself and that such injunction would operate as a taking of private property for public use, and this defendant further an- 40

swering says that no proceedings have ever been had or taken except the filing of said bill of complaint to deprive this defendant of his right to discharge the waste water of said creamery into said stream, and that no compensation has ever been made for the damage which would be sustained by this defendant in the deprivation of the right to discharge the waste water of said creamery into said stream.

10 26. This defendant further answering insists that to enjoin this defendant from discharging the waste water into said stream would be to deprive this defendant of property rights without compensation and without due process of law.

27. This defendant further answering says that at the time the Act of the Legislature of the State of New Jersey entitled: "An Act to Secure the Purity of the Public Supplies of Potable Waters in this State," took effect, this defendant had a right to discharge
20 waste water from said creamery into said stream in the same manner as such waste water is now being discharged into said stream and this defendant submits that said Act of the Legislature cannot deprive this defendant of the right to so discharge such waste water into said stream.

28. This defendant further answering says that after the receipt by this defendant of the letter set forth in the paragraph or subdivision of said bill of complaint numbered 4, this defendant sought to ascertain
30 what action the Board of Health of the State of New Jersey desired this defendant to take with regard to the waste water of said creamery and this defendant was then informed that said Board of Health would require this defendant to build a watertight cess-pool to receive such waste water. This defendant further answering says that the requirement to discharge such waste water into a watertight cess-pool is utterly impracticable, unreasonable, unjust and oppressive and would constitute an infringement on the property rights of this defendant. A watertight cess-pool would pre-
40 vent the percolation of such waste water into the

ground, and there is no practicable method of disposing of the waste water which would be accumulated in such cess-pool except to discharge the same into said stream.

29. This defendant further answering denies each and every allegation in said bill of complaint contained, except as hereinabove admitted or denied.

30. This defendant submits that the complainant has no right to any further answer to said bill of complaint than is hereinabove contained and has no right to any injunction or other relief, and he humbly prays to be hence dismissed with his reasonable costs and charges in this behalf most wrongfully sustained. 10

J. R. BOWEN,
Solicitor of Defendant.

REPLICATION.

The complainant joins issue on the answer of the defendant. 20

ROBERT H. McCARTER,
Attorney General, Solicitor of Complainant.

ORDER OF REFERENCE.

It is on this eighth day of February, nineteen hundred and six, on motion of Robert H. McCarter, Attorney General, of counsel with the complainant, ordered that the above-stated cause be referred to Eugene Stevenson, Esquire, one of the Vice Chancellors of this Court, to hear the same for the Chancellor, and to report thereon to him, and advise what order or decree should be made therein. 30

W. J. MAGIE, C.

PROCEEDINGS ON TRIAL.

This cause came on for hearing before Eugene Stevenson, Esq., the Vice Chancellor to whom it had been referred, at the Chancery Chambers in Jersey City, on 40

April 19, 1906, in the presence of Messrs. Edward D. Duffield and Theodore Backes, representing the complainant, and Mr. James R. Bowen, representing the defendant.

The pleadings having been read, counsel with complainant read chapter 41, of the Laws of 1899, which chapter is as follows:

An Act to secure the purity of the public supplies of potable waters in this State.

10

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

20

1. No sewage, drainage, domestic or factory refuse, excremental or other polluting matter of any kind whatsoever which, either by itself or in connection with other matter, will corrupt or impair, or tend to corrupt or impair, the quality of the water of any river, brook, stream or any tributary or branch thereof, or of any lake, pond, well, spring or other reservoir from which is taken, or may be taken, any public supply of water for domestic use in any city, town, borough, township or other municipality of this state, or which will render, or tend to render, such water injurious to health, shall be placed in, or discharged into, the waters, or placed or deposited upon the ice, of any such river, brook, stream or any tributary or branch thereof, or of any lake, pond, well, spring or other reservoir above the point from which any city, town, borough, township or other municipality shall or may obtain its supply of water for domestic use, nor shall any such sewage, drainage, domestic or factory refuse, excremental or other polluting matter be placed or suffered to remain upon the banks of any such river, brook, stream or of any tributary or branch thereof, or of any lake, pond, well, spring or other reservoir above the point from which any city, town, borough, township or other municipality shall or may obtain its supply of water for domestic use as aforesaid; and any person or persons, or private or public corporation, which shall offend against any of the provisions of this section shall be liable to a penalty of one hundred dollars for each offense; and each week's

30

40 continuance, after notice by the state or local board of

health to abate or remove the same, shall constitute a separate offense; provided, however, that this section shall not be held to apply to any city, town, borough, township or other municipality of this state which, at the date of the passage of this act, has a public sewer or system of sewers, drain or system of drains, legally constructed under municipal or township authority, discharging its drainage or sewage into any such river, brook, stream, lake, pond, well, spring or other reservoir; and provided, further, that nothing in this section contained shall be construed to repeal, modify or otherwise affect any law or statute now conferring upon any local board of health the power or authority to institute any proceedings in any court of this state for the recovery of any penalty for, or obtaining any injunction against, the pollution of any of the waters of this state. 10

2. Any penalty incurred under any of the provisions of the first section of this act may be recovered, with costs, in a summary proceeding, either in the name of the board of health of the State of New Jersey, or in the name of the local board of health of the township, city, borough, town or other local municipal government within whose jurisdiction the penalty may have been incurred; it shall be the duty of any health inspector, or member of any local board of health, who shall know or be informed of any violation of any of the provisions of the first section of this act whereby any penalty may have been incurred, to make, and any other person having such knowledge may make, under oath or affirmation, a complaint against the person or persons, or private or public corporation incurring such penalty, setting forth the facts of such violation, which complaint shall be filed in the office of the clerk of the district court, or with any justice of the peace of the county within which the offense may have been committed, or with any police justice or recorder of the township, city or other municipality within which any local board bringing suit shall have jurisdiction; and the district court, justice of the peace, police justice or recorder with whom any complaint shall be filed as aforesaid, setting forth facts sufficient to show that the penalty 20 30 40

prescribed by the first section of this act has been incurred, is hereby authorized and required to issue process, either in the nature of a summons or warrant, which process when in the nature of a warrant shall be returnable forthwith, and when in the nature of a summons shall be returnable in not less than five nor more than fifteen days; on the return of such process, or at any time to which the trial shall have been adjourned, the said court, justice of the peace, police justice or recorder shall proceed to hear the testimony of witnesses and the proofs in the case, and to determine and give judgment in the matter without the filing of any pleadings, and, if judgment shall be given in favor of the plaintiff, execution shall forthwith issue against the goods and chattels of the defendant for the amount of the penalty, with costs; and all judgments so rendered shall have the same force and effect as other judgments in civil actions before civil courts and officers, and may be docketed in like manner in the office of the clerk of the court of common pleas; the officers to serve and execute any process or execution issued as aforesaid shall be the constables of the counties, which service and execution, in the case of any execution issued out of the district court, shall be made in the same manner and under the same liabilities as other executions issued out of said court are served and executed; the officers to serve and execute any process or execution issued by a justice of the peace, police justice or recorder shall be the constables of the county, which service and execution shall be made in the same manner and under the same liabilities as prescribed in cases of the service and execution of processes and executions by the act entitled "An act constituting courts for the trial of small causes," and the supplements thereto; all moneys recovered in any such proceeding shall be paid to the plaintiff therein and applied by such plaintiff to any purpose for which it may be legally authorized to expend money.

3. The state board of health shall have the general supervision, with reference to their purity, of all rivers, brooks, streams, lakes, ponds, wells, springs or other reservoirs in this state, the waters of which are, or may be used as, the source or sources of public water supplies

for domestic use, together with the waters feeding the same, and shall have the authority, from time to time, as they deem necessary or proper, to examine the same and to inquire what, if any, pollutions exist, and their causes; and the said state board of health, in carrying out the provisions of this section may, from time to time, as they deem it necessary or proper, address inquiries in printed or written form to any local board of health, municipal or township authority, corporation, or person or persons, which inquiries it shall be the duty of the persons or parties addressed to answer within such time as the said state board of health may in such inquiries prescribe.

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4. If any person or persons, corporation or corporations, city, town, borough, township or other municipality of this state, or any municipal or township authority, shall violate any of the provisions of the first section of this act, it shall be lawful for the said state board of health, instead of proceeding in a summary way to recover the penalty prescribed in said section, to file a bill in the court of chancery, in the name of the state, on the relation of such board, for an injunction to prohibit the further violation of the said section, and every such action shall proceed in the court of chancery according to the rules and practice of bills filed in the name of the attorney general on the relation of individuals, and cases of emergency shall have precedence over other litigation pending at the time in the court of chancery, and may be heard on final hearing within such time and on such notice as the chancellor shall direct.

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5. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

6. This act shall take effect immediately.

Approved March 17, 1899.

MORRIS R. SHERRERD, sworn for the complainant, testifies as follows:

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Direct Examination, by Mr. Duffield:

Q. Mr. Sherrerd, where do you live?

A. In Newark.

Q. And what is your profession?

A. Civil engineer.

Q. Employed by the City of Newark at the present time?

A. Yes.

10 Q. In what capacity?

A. I am chief engineer of the Board of Street and Water Commissioners.

Q. Are you familiar with the water shed where the City of Newark secures its water supply?

A. I am.

Q. Will you describe briefly that situation?

A. The water supply of the city is obtained from the Pequannock river, which is a branch of the Passaic. The water is taken into the pipe lines at the Macopin Intake and from there conducted to the city. The
 20 water which flows through the Pequannock river to the Macopin Intake comes from the several branches that form that stream above the Intake and also from the reservoirs. The drainage area is some sixty-two and a half square miles in extent. The main stream is the one which flows down through Stockholm from the Canistear reservoir through the town of Stockholm into the Oak Ridge reservoir; from this reservoir down through New Foundland, at which point a branch stream enters the main stream from the Clinton reservoir which is situated about a mile and a half above New Foundland;
 30 and from New Foundland the stream runs down towards the Intake, passing through what was formerly the village of Charlottesburg. The total distance from Stockholm to the Intake, I would say, is about, roughly, ten miles.

Q. Are you familiar with certain premises occupied by the defendant George Ihnken as a creamery?

A. I am.

Q. Is there a stream running at or near these premises?

A. There is a stream quite near the premises.

40 Q. Is that a tributary of the Pequannock river?

A. That is what might be considered the main part of the river. This creamery is located on the stream which flows from the Canistear reservoir to the Oak Ridge Reservoir; and the creamery is situated near the station on the New York, Susquehanna and Western Railroad station at Stockholm.

Q. Have you observed there any trough carrying waste matter?

A. I have. .

Q. That empties into the stream that you have just described? 10

A. It empties on the ground, I think about twenty feet from the stream. It comes out from the building in a wooden box-like trough, perhaps four inches square, inside diameter, and falls a few feet off on to the ground, and then runs from fifteen to twenty feet into a little ditch, and then into the stream.

By the Court:

Q. Into the main stream? 20

A. Into the main stream.

Q. How far is the main stream from the point where the water flows into the ditch?

A. I think it runs in this ditch on the ground, I would judge about fifteen feet.

Q. And then flows into the stream, the branch stream?

A. Into this main stream. It is right off the main stream.

Q. From the end of the ditch to the main stream, there is no running stream, no permanent stream? 30

A. No permanent stream, but this flow seems to be more or less constant. It would cause a little trickle almost continually.

By Mr. Duffield:

Q. What I have referred to so far in the case as a tributary, you now say is a main stream of the river?

A. Well, that would depend on which you would consider the main stream of the Pequannock, because the streams after that branch out at New Foundland, 40

have different names. I think that one comes down from Stockholm, and is considered the main stream of the Pequannock, because that is the longer tributary.

By the Court:

Q. What is it called?

A. That is called Pequannock, so far as I know. The other, upper Clinton Reservoir, is called Mossman's
10 Brook.

By Mr. Duffield:

Q. From that stream, or from the river of which that stream is a tributary, the city of Newark eventually gets its supply?

A. It does.

Q. Now, will you tell us how far it is from that stream to the end of this wooden trough?

A. Roughly speaking, I think it is about ten miles
20 to the Intake.

Q. No, how far is it from the stream, or the branch, that the trough comes? In other words, how far does the fluid travel over the ground?

A. I think I testified about fifteen feet. I am estimating that.

By the Court:

Q. I understand you estimate the distance from where the water flows into this ditch down to the stream
30 as fifteen feet?

A. Yes. The water comes out of a spout running outside of the building, and then falls some three feet, I should say, onto this ground, and has made for it a small ditch about fifteen feet, and it runs along into that ditch into the main stream.

Q. The line of the ditch is a continuation of the line of the trough, is it?

A. Yes—directly into the stream.

Q. Is the trough above the surface of the ground?

A. The trough comes out of the side of the building,
yes.

Q. How far above the ground?

A. I think about three feet, I should say, and then drops. It is a sort of a spout.

By Mr. Duffield:

Q. Does the substance coming through that trough eventually reach the river?

A. It does.

Q. You have seen that yourself?

10

A. Yes.

Q. What is it that is carried off from there through this trough—the character of it?

A. It seems to be the water in which the milk cans are cooled, or in which they are more or less washed. It is the drainage of the tank in which these milk-cans are allowed to remain.

Q. Have you examined it inside?

A. I have seen it some years ago, and it is a fluid, black looking water on most occasions that I have seen it, and it seems to have been used continually for some time.

20

By the Court:

Q. The water seems as if it had been used for washing purposes until it got very dirty?

A. Yes.

By Mr. Duffield:

Q. What experience have you had in the question of water supply work?

30

A. I have had from eighteen to twenty years experience in water supply matters.

Q. Is the substance which you saw coming through this wooden trough, eventually reaching the river, of a character that would pollute or tend to pollute or corrupt the quality of a potable, drinking, water?

MR. BOWEN: I object to that question on the ground that this witness is not a competent witness as to what pollutes. Pollution means rendering impure. That is the definition given in the dictionaries for it. In addi-

40

tion to that, pollution, so far as the police power of the state is concerned, means inimical to the public health. I submit that this witness, unless he has qualified, cannot testify as to what pollution is in answer to that broad question.

THE COURT: Mr. Duffield, your questions to qualify the witness were brief. You might ask a few more.

- 10 Q. You are a graduate of what institution?
 A. Rensselaer Polytechnic Institute at Troy.
 Q. Did you have any occasion there to take up the question of water supply?
 A. Yes, I had.
 Q. How much work did you do on that there?
 A. I had a course there in hydraulics and in water supply, which was the foundation for work of that kind.
 Q. When did you graduate?
 A. In 1886, twenty years ago.
- 20 Q. And since your graduation, what work have you done in these lines?
 A. I have had about sixteen years experience, most of which has been devoted to water supply matters. The other four years were devoted to railroad work and other civil engineering work. At Peoria, Illinois, I was connected with the city government there in the capacity of assistant city engineer, and was associated with the special experts who were employed to test the water supply system of that town. At Troy, New York, I made surveys for additional water supply for the City
- 30 of Troy, and also constructed numerous small water plants for different communities, the water system for Mechanicsville, New York, I constructed, and for the last eleven years I have had charge of the water supply of the city of Newark, and have had a rather extensive consulting practice in hydraulic work. This consulting practice has not been confined to just the construction features of the work, but to the reports in connection with biological examinations and bacteriological examinations of the availability of certain sources of water supply.

By the Court:

Q. In view of possible pollution?

A. Yes, in view of possible pollution. I have especially during the last eight years, been very closely in touch with the bacteriologists of the Newark Board of Health, and have also studied the writings of the different sanitary engineers on this question.

Q. On what question? Has this work brought you to the study of the sources of pollution of water supplies?

10

A. I wanted to lead up to that. I think that it has in this way: While I have not made the bacteriologicai analysis myself, my studies have been along lines which would, I think, qualify me to draw conclusions from these reports submitted by bacteriologists, and also my associations with the American Water Works Association, and with the American Society of Civil Engineers, in which I have had opportunities to study the reports and papers submitted by sanitarians and by noted men, and have also had occasion to know more or less about the expert evidence that has been given in many of these suits that have been pending, about the pollution question. So, I feel that I am competent to draw conclusions from these analyses when they are presented to us. Now, in the operation of the Newark plant, it has been customary for the Newark Board of Health to take samples of the water from the water shed at least once a week, and those reports are submitted to the Board of Street and Water Commissioners, and they are also submitted to me, and from the results of those examinations, the business of the plant to some extent is conducted.

20

30

MR. DUFFIELD: I submit that the witness has qualified to testify on the question as to what would tend to pollute a water supply.

MR. BOWEN: I submit that the witness has not qualified himself.

Q. Are there sources of pollution recognized by scientific men which do not show bacteriological contamination?

40

MR. DUFFIELD: I submit that is proper.

MR. BOWEN: I submit that is for scientific men, medical men, and not engineers.

THE COURT: I will take it.

THE WITNESS: There are sources of pollution of that character. I might perhaps explain it really in this way: Simply a chemical analysis or simply a bacteriological analysis of water is not always sufficient to determine the potability of that water. So, we have joined with that what might be called a sanitary inspection of the sources. For instance, certain conditions might exist that would show in an analysis of the water that a sanitary inspection of the water would show it to be safe to use. But the work of the bacteriologist in order to be complete, as showing the potability of the water, should be supplemented by such an examination. Now, I believe that I am in a measure better qualified for that sort of work than most of the bacteriologists, because their work is confined to laboratory work.

By the Court:

Q. Is this what you mean: That the bacteriologist might report upon a sample of water that it is entirely potable, but an examination of the sources of the stream from which the water was derived, would show that any supply would be unsafe from that stream?

A. Yes, I mean to say that for this reason, that the sample of water is taken at one moment during the course of the collection of the water. If it had been taken for perhaps every day or twice a day for a month, it would show conditions there any time on the stream. But if that bacteriological examination is supplemented by a sanitary inspection, the safety of the water is better assured from such an examination than from purely a bacteriological one.

MR. DUFFIELD: I wanted to suggest to your Honor that so far as the effort goes, there is nothing there that shows bacteriological contamination.

THE COURT: Any objection to this witness answering this question as an expert?

MR. BOWEN: I object to his answering as an expert in regard to this matter.

THE COURT: I think he has qualified fully as an expert on several branches of the case. He may not be qualified to speak on other branches.

Q. Will you tell us if the substance which is being deposited in this river is injurious to the water for potable purposes and if so, in what way?

10

MR. BOWEN: I object to that on the ground that this witness has not shown himself to be qualified to state whether this water is injurious or not, and whether this substance is injurious or not. He is an hydraulic engineer. The question is whether this substance which we dump into this stream is injurious.

20

THE COURT: I will allow the question.

Q. Go on, Mr. Sherrerd.

A. I would say that the substances that are carried into the stream there would tend to be injurious.

Q. In what way?

A. This trough brings out the wash water from milk-cans and those milk-cans are brought in from the country districts there, and they of necessity must have more or less manure upon the sides of the cans, and also they are handled by men who are not particularly careful in their personal cleanliness, and the wash water which comes from these cans is apt to carry not only contamination that would come from the barnyard, but also contamination of human faecal matter that might remain on the hands of the persons handling the cans; so that it would seem to me that the washings from these cans would be dangerous to allow it to enter into a stream that is used for water supply purposes.

30

Q. What is the character of this substance?

A. The water, as I have seen it in the tank, is dark and dirty.

40

Q. Has it got any odor.

A. I didn't notice the odor.

By the Court:

Q. What do you mean by the tank?

A. The tank in which these milk-cans are allowed to stand, and this trough seems to be the overflow from that tank.

10 Q. How does the water appear to the eye where it is discharged into the stream.

A. Well, it is of such a character that you would not think of drinking that water, and particularly when you see the water as it stands in this vat, as I have seen it.

Q. Have you examined the stream where the water flows into it, in order to see whether the stream is discolored?

A. Well, the stream is quite a large body of water compared to this it runs in, and it would hardly show
20 very much discoloration from these sources. I have examined the stream specially for the purpose, to see how far it would affect the water.

Q. Have you examined the color of the water which flows from the ditch just at the point where it reaches the stream?

A. I cannot say that I have examined that critically recently.

Cross Examination, by Mr. Bowen:

30 Q. This creamery stands alongside of the railroad, does it not?

A. Yes.

Q. And the land where the creamery is situated is the low part of the country about there? It is surrounded by hills, isn't that true?

A. Yes.

Q. As I understand the nature of this trough, it is about fifteen feet from the edge of the stream?

A. I am estimating that as the distance.

Q. And the water coming from the trough is thrown
40 on the ground, and finds its way down to the stream?

A. Yes.

Q. Did you observe any white substance on the ground?

A. I didn't observe it critically recently. I haven't observed the situation recently.

MR. DUFFIELD: I will say we will produce witnesses who have been there more recently.

Q. Did you observe any white substance on the ground? 10

A. I did not observe it recently.

Q. Did you see any manure or evidence of manure on the ground?

A. No, I say I have not observed it recently.

Q. No, but at the time that you made your examination to which you have testified this morning, did you see anything of that sort?

A. No, I did not.

Q. This soil thereabouts is rocky, is it not?

A. In general, the country is rocky. 20

Q. Now, from the trough to the stream, is that rocky, or is it simply dirt?

A. I think that is soil—more or less soilly nature.

Q. This stream which flows alongside of this land has a regular, constant, rapid flow, has it not?

A. In general, yes.

Q. Where does that stream empty?

A. It goes into Oak Ridge reservoir.

Q. Is that Oak Ridge reservoir in use?

A. It is in use intermittently.

Q. As a reservoir? 30

A. As a reservoir.

Q. And from Oak Ridge reservoir where does the water go?

A. The water flows along the river and finally to the Macopin Intake.

Q. How far is it from the Oak Ridge reservoir to the end of this trough?

A. From the outlet of Oak Ridge reservoir, between three and four miles. .

By the Court:

Q. How far does the stream run from this point of alleged pollution, before it enters into the Oak Ridge reservoir?

A. About two and a half to three miles. The reservoir is about a mile and a half long.

Q. And then how far is it from the lower part of Oak Ridge reservoir down to Macopin Intake?

A. I think it is about six or seven miles.

Q. And what is the course of the stream during
10 that—

A. It is rather twisting and turning.

Q. And rapid?

A. In parts; not in all its parts.

Q. Rocky bed?

A. Most of the way—about three-quarters.

By Mr. Bowen:

Q. Before this water gets to the Oak Ridge reservoir does it flow into any pond?

20

MR. DUFFIELD: It seems to me that is immaterial.

THE COURT: I will take all the facts that show the physical conditions.

THE WITNESS: There is a slight pond—very little pondage before it gets into Oak Ridge reservoir. Formerly there were ponds there but the dams have gone out.

Q. From the Intake the water is conveyed to the
30 City of Newark by pipes?

A. It is conveyed part of the time directly to the city, but during the last year, through the Cedar Grove reservoir, and then to the city.

Q. How far is this water exposed to the action of light and air before it gets into the pipes which supply the city of Newark?

MR. DUFFIELD: I object to that as immaterial and irrelevant.

40 THE COURT: I will allow it.

THE WITNESS: It runs through the stream, as I have said, about eight miles, you might say, taking out the reservoir part of the run, the total distance being about ten, and then it runs the reservoir for a mile and a half to two miles.

Q. At the times you made your examination in the vicinity of this creamery, did you observe the creamery itself, the building itself? Did you go inside?

A. I only went to the entrance at that time. 10

Q. Did you see the troughs, or tubs, in which the cans were washed?

A. I saw the vat, the tank.

Q. Do you know where that water came from?

A. No, I couldn't say positively..

Q. Do you know whether before that water reached the creamery it was discolored or not?

A. I do not.

Q. Now, this stream which run alongside of the creamery building is the natural means for draining that property, is it not? 20

MR. DUFFIELD: I object to this as immaterial and irrelevant.

THE COURT: I will take it, subject to your objection, Mr. Duffield. I am going to allow counsel for the defendant to put in a certain amount of this testimony, although it would seem as if under the decision of the Diamond Mills case it is irrelevant.

MR. DUFFIELD: This is irrelevant on another theory 30 as well. He is now endeavoring to show by the examination of this witness—to substantiate that portion of his answer in which he alleges that because a natural drainage exists here, he has a right to pollute.

THE COURT: Even if you pollute, but at the point only where the water flows into the stream. That is the disposition.

MR. DUFFIELD: I think he is going farther than that now. He is taking the position now, granting that we 40

do pollute, wasn't that the natural drainage? Wasn't that the way in which this land always drained?

- THE COURT: This is the view I think in which this testimony is offered: As I heard his answer and infer from his questions, he takes the position that if the defendant established his plant fifteen years ago, availing himself of the natural drainage system, and has used his property and has expended money upon it, so as to get the advantage of the natural discharge into this stream, the state cannot interfere with him in the exercise of the police power, and to a large extent, destroy the beneficial use of his property, without showing that what he does in fact is injurious to health, tends to injure health. I understand that he insists that the constitution protects him against any such action on the part of the state, conceding that the constitution does not protect him at all if he pollutes the water supply of Newark. Now, I infer that that is the distinction that he means to draw from these questions. I don't know what other view he has. Now, whether the case of the Diamond Mills Paper Company is conclusive on this point I am not quite sure. I want to look at it with more care. I don't know but what the decision of the Court of Errors precludes all argument of the kind I have indicated. Mr. Bowen, in his answer, took the position that the state in the exercise of its police power could not interfere with the operations of the defendant, even if the water supply of Newark is polluted, and I told him that he must produce authorities on that point. Now, he is asking questions which indicate a position which is not as extreme as that, and I have been reflecting while some of the testimony has been taken, on the question whether the Diamond Mills Paper case holds that the state, without showing any injury at all to any existing water supply, under this statute can come in and by injunction from this Court restrain a man in the beneficial use of his property, simply because he is polluting, not the water supply, but polluting a stream which flows into the water supply, even though it be conceded that there is no pollutive effect produced upon the water supply. Now, whether the Diamond Mills Paper Company's case goes that far, I don't know.

MR. DUFFIELD: I do not consider that there is no pollutive effect on the water supply ten miles away.

THE COURT: This all predicated upon the fact that there is no possible pollutive effect there. It would seem from these authorities that the principles are well established that the state can interfere with this man, no matter how plaintive his complaint is, and no matter what loss it may subject him to, and stop him from pouring pollutive matter into the stream, provided such pollution is effective down where the water supply is taken. That is well settled, of course, but we have to deal here with a different case from that. I think I shall have to allow some of this. 10

MR. DUFFIELD: Will your honor permit me to make one general objection to any testimony in regard to the effect of this deposit at points other than the point of deposit. I make one general objection to that line of cross-examination, and furthermore, I object to any questions in regard to the natural drainage of the land, or in regard to the time this creamery has been in operation. 20

THE COURT: Of course, all this testimony will be dealt with by this Court and possibly by the Court of Errors and Appeals, and possibly a large part of it may be stricken out, and a large part of it I may deem entirely irrelevant.

(Last question read to the witness.)

THE WITNESS: The surface water from the land finds its way in times of rain to the stream. 30

Q. Can any other water be drained otherwise, or in other places than into that stream, except by artificial means?

A. Arrangements could be made by which this drainage from this pipe could be taken into the ground and allowed to filter through, before it enters the stream, and it would probably make a safe disposal of it.

Q. Now, if the soil there be rocky, would it be pos- 40

sible for the water in such a cess-pool to filter through the ground?

A. There is several feet fall between this tank and the stream, so that the overflow could be intercepted in some sort of a filtration arrangement that could be built on top of that rocky soil.

Q. Do you know how much water passes through this creamery in a day?

10 A. I don't know the quantity. I have seen it running quite a little stream, constantly, while I have watched it.

Q. Do you know whether that stream does or does not run the whole twenty-four hours?

A. I do not.

Q. Do you know whether it runs at any other times than when milk-cans are being washed?

A. I am not sure about that. I haven't watched it long enough to know.

Q. At the time you made your observations, were milk-cans being washed?

20 A. Milk-cans were standing in the vat at that time, I believe.

Q. And water was coming out of the trough?

A. There was some trickle coming out.

Q. How much quantity of trickle?

A. Oh, a small stream, as large as your thumb, dripping out of the end of the trough.

Q. And you saw no evidences of washing being carried on then?

A. At that time when I saw the discharge, I didn't make an examination of the inside of the building.

30 Q. You simply saw milk-cans standing in vats or wash-tubs?

A. Yes.

Q. Do you know why they were there? Did they contain milk, those cans?

A. I didn't examine them then.

Q. Are you familiar with creamery operations?

A. Somewhat.

Q. Cans containing milk are put in water, are they not, to cool them?

A. Generally, yes.

40 Q. Do you know whether these cans were not stand-

ing in the water at that time to cool them?

A. They may have been.

Q. That would not dirty the stream, would it?

A. Well, it would tend to, from my general observation of the way milk-cans are handled around farm-yards, and places of that kind.

Q. Are the statements and conclusions which you have expressed as to the purity or impurity of the discharge exclusively personal knowledge, or are your statements based on your personal knowledge and on books generally accepted as good authority by men in the sciences? 10

A. Both.

Q. You are not a bacteriologist?

A. No, sir.

Q. That is a separate and distinct science, is it not, from this?

A. Yes, you might say it is a subdivision.

Q. And as I understand you, in order to determine whether water is fit for domestic use, physical, chemical, and bacteriological examinations are necessary? 20

A. They are not always necessary. They are all advisable, perhaps—one or the other might determine the conclusion, without resource to the others.

Q. But to ascertain—

A. Certainly if there were a large number of places that were operated as this creamery is, upon that water shed, there would be no need of any bacteriological examination to determine its effect.

MR. BOWEN: I move to strike out; that is not responsive. My questions are directed to this creamery itself, and not to a suppositious state of facts, if there were a large number of other creameries doing other things. 30

Q. My question is this: In order to determine whether the water at the point where it comes from the trough and empties into the stream from this creamery, is fit for domestic use, physically and chemically, a biological examination would be necessary, would it not?

A. I understand you to say that in general. Your question was general, whether it was necessary to that 40

all of these three to arrive at the conclusion, and I said that if there were a number of creameries discharging as this one is, throughout that water shed, a physical examination itself would be sufficient to condemn the supply from that source. Now, confining it, as your question seems to, to this particular discharge, I would say that knowing the physical conditions under which these milk-cans are put in this water, and this wash water allowed to go into the stream, that that in itself, would be sufficient to condemn that discharge as being
 10 dangerous and tending to pollute the water supply.

Q. Do you know whether those milk-cans were or were not washed on the outside before they ever come to the creamery?

A. I have seen them on their way to the creamery. I cannot testify as to these individual cans.

Q. Did you notice the manure or other polluting matter on the outside of the milk-cans before they came to the creamery?

A. I did not see these particular cans before they were put into the vats.
 20

Q. Or any cans? Did you notice manure on any cans before they went to that creamery?

A. I have seen the way that they are carted through the country, and from the way in which they are transported, they must of necessity have matter of that kind attached to them.

Q. Did you see them transported to this very creamery?

A. I have seen cans from that neighborhood being transported down that way. I did not follow any particular can to know whether it was delivered.
 30

Q. Do you know whether those cans were not being transported to the railroad depot there?

A. I say I cannot testify as to where those particular cans went.

By the Court:

Q. Do you know whether the cans were really placed in the tank filled with milk or not?

A. I do not.

Q. Do you know whether any cans, empty milk-cans, are washed in this tank?

A. I don't know about those details.

By Mr. Bowen:

Q. Or do you know whether the outside of any full cans are washed there?

A. No, I cannot answer as to that, except that I have seen these cans standing in the vat.

Q. Do you know whether there was any foreign matter on the outside of those cans?

10

A. I cannot say as to that.

Q. Do you know the color of this water or the characteristics of it, of this water, that supplies the creamery before it comes to the creamery?

MR. DUFFIELD: Objected to as immaterial. It does seem to me that we are pretty far. I submit that if this polluted water which they put by artificial means in this creek, is deposited, we are entitled to an injunction.

20

THE COURT: I will take all the physical facts about this matter. Proceed.

THE WITNESS: I answered that question before.

MR. DUFFIELD: It is admitted that all the washings from these cans and the washings from the floor are carried through this tub and into the creek. Now, why waste time in going into this long inquiry as to the washings of these cans?

THE COURT: I will take all the physical facts.

30

THE WITNESS: I don't know about the source of water supply to the creamery. That was my former answer to this question.

Q. To determine whether the water discharged into this trough and into the stream is in fact unfit for domestic use, wouldn't a biological examination be necessary?

A. The appearance of the water in the trough was sufficient in my judgment, to condemn it.

40

Q. Do you know what the water in the trough contained?

A. I don't know, but its appearance was sufficient. It evidently contained the washings from milk-cans, as far as I could judge. It was a discolored water, dark and black.

Q. In your judgment is there any danger to public health from organic matter in solution in water?

A. Mineral matter?

10 Q. Organic, vegetable or mineral?

A. Why, there is danger, yes; because disease germs are apt to be present—it is an indication of the quality of the water. It doesn't necessarily condemn the water, but it is an indication that there is danger to be apprehended from such condition.

Q. You say that disease germs—you have spoken of disease germs. By that I suppose you mean pathogenic germs, do you not?

A. Yes.

20 Q. Can those pathogenic germs or bacteria be ascertained otherwise than by an examination, bacteriological examination?

A. They can by inference.

Q. Inference from what?

A. From where the polluting matter comes from, the source of the pollution, or the source of the contamination.

Q. Then, is your testimony based on that inference?

A. My testimony is to a degree based on that inference.

Q. How much isn't based on that inference?

30 A. What is based on my observation isn't based on inference.

Q. Do you know how many kinds of disease carrying bacteria there are?

A. I don't think any man knows.

MR. DUFFIELD: I object to this testimony as immaterial and irrelevant.

THE COURT: I will allow it.

40 THE WITNESS: I don't think anybody can answer that

question positively. There are certain known bacteria that are dangerous, yes, to health.

Q. Those would be the typhoid germ?

A. The typhoid germ.

Q. The coli speculum or germ?

A. The typhoid germ is the one which is most to be dreaded in the water supply in this country.

Q. And do you know of more than three disease carrying germs that may be found in water, or taken 10 through the mouth?

A. I don't know of more, no.

Q. Now, water may be filled with bacteria and still have no disease breeding germs in it? Is that not true?

A. That is true.

Q. And if there be a large quantity of non-pathogenic bacteria the likelihood of having pathogenic bacteria is decreased, is it not?

A. Not at all.

Q. That is your knowledge?

A. That depends on the kind of bacteria that are 20 present.

Q. Do you know whether, you take the typhoid germ, —is that very strong, has it very much vitality?

MR. DUFFIELD: I submit to your Honor that the witness has not qualified as a bacteriologist. He has not given any bacteriological testimony.

THE COURT: I don't think that he was examined in chief as a bacteriologist at all. On the contrary he disclaimed having any special qualification to testify on 30 that subject.

MR. BOWEN: He testifies that this water was impure. I want to show that he in his qualifications laid sufficient basis upon which this Court could infer from his testimony that there is any impurity or deterioration in this water.

THE COURT: You are asking him a number of questions of bacteriological science that requires an expert

in that line to answer. He doesn't undertake to answer them.

Q. Did you see any manure in that creamery?

MR. DUFFIELD: I think that is the fifth time that question has been asked and answered.

THE COURT: I don't think it was asked exactly in that
10 form.

THE WITNESS: I was asked if I saw any on the property. I said I did not see any.

Q. You say the water which came out of the trough was dark in color?

A. I said that the water in the trough that I saw in the trough, was dark and discolored.

Q. How about the water that came out of the—

A. That was also discolored.

20 Q. Did you notice whether it discolored the water itself in the stream?

A. I did not notice about that.

Q. Did you see any water running from the trough into the river or the stream?

A. I did not notice the time I saw it running from the trough whether it was running into the stream.

Q. How long ago was it since you examined this?

A. When I saw the water running from the trough was last Friday.

Q. Did you ever see it before that time?

30 A. Yes, I have seen it before. My impression was there had been some changes made in the outlet of that trough, but I am not sure about that.

Q. How long before was it?

A. Several years ago. I did not examine this situation with a view to testifying in this case.

Q. Did the water in the tubs which came out of the trough have the appearance of being washings of the interior of milk-cans?

A. I think it was discolored. I don't remember whether it was especially white, if that is what you
40 mean, at the time I saw it?

Q. Yes.

A. I don't remember that it was especially white.

Q. You say that you were connected with Peoria water works in Illinois?

A. I was assistant city engineer in Peoria.

Q. The water there is pretty dark in color?

A. In 1889. At times, it is, yes.

MR. DUFFIELD: I cannot see any relevancy in this case as to the condition of water in Illinois.

10

THE COURT: I cannot either, Mr. Bowen.

Re Direct Examination, by Mr. Duffield:

Q. I understood you to say, in response to a question by Mr. Bowen, that it was unnecessary to have a physical, bacteriological and chemical test made in order to determine that the substance was pollution. Will you tell us why that is so?

A. I think I said it was not always necessary to have the three examinations; that a physical examination of certain conditions would be sufficient to condemn the sources of water supply. 20

Q. For example, assuming that you could trace a direct connection between a privy or cess-pool and a water supply, would it be necessary to make a bacteriological examination in order to determine the injurious character of that contamination?

A. It would not be necessary. I might go further, and say that in this particular case, it seems to me that if you could follow a milk-can from the barn and know that that milk-can had been handled by employees whose hands were soiled, and had also manure on its outside, and that can was sent to a creamery, and then allowed to be put in this vat, whether it was previously washed, and that washing allowed to go into the stream, or whether it was put into the vat, and that drainage allowed to go into the stream, the conclusion would be positive, that that was a dangerous spot in the water shed. 30

Q. What is the purpose of a bacteriological test? I mean to say, I am not asking you to how you make 40

tests; I mean to say, as a water expert, why do you have bacteriological tests made?

A. A bacteriological test that shows the presence of what is called the colon bacilli indicates intestinal bacteria, that that is present in the water, and if that is present, then that indicates that intestinal refuse is getting into the water.

Q. What is the injurious character of intestinal refuse, so far as health goes?

10 A. Because the disease breeding germs are from the intestinal tract.

Q. Are these bacteriological tests that are made, ever made for the purpose of showing the presence of the typhoid bacilli?

A. They are not made to attempt to show that, but as I have understood the question, it is sometimes very difficult to isolate the typhoid germs, so that the presence of the colon bacilli can be more easily detected.

20 Q. Therefore, when the non-pathogenic organisms are present, there is at least a suspicion that the pathogenic organisms may be present, although undetermined?

A. Whenever the colon bacilli is determined.

Re Cross Examination, by Mr. Bowen:

Q. This coli bacteria may be in the dust of a road and blown right into the stream?

A. It may.

Q. It may be the result of washing milk-cans or anything else?

30 A. That is true.

Q. Do you know when the city of Newark acquired its right to take water from the Pequannock water shed for domestic purposes?

MR. DUFFIELD: Objected to as immaterial and irrelevant.

THE WITNESS: In 1889 the city of Newark made a contract with the East Jersey Water Company and the Lehigh Valley and the Morris Canal and Banking Com-
40 pany.

Q. This is the contract (showing witness paper)?

A. This is a reprint of the main contract.

MR. DUFFIELD: I object to it, not as to form, but merely as to substance.

Q. Do you know when the city of Newark finally became the owner of that water shed?

A. The fee of part of the property was taken in 1892, and the balance of the property in September, 1900. 10

Q. Now, as to this particular locality, where this creamery is concerned, do you know when the title there vested in the city of Newark? I don't refer to this specific property, but property in that vicinity?

A. It is a little involved in a sense, as you understand. That is, the title to part of the property that was constructed prior to 1892 was vested in the city at that time, and the balance in 1900, which was the Canistear reservoir, which is located above, one portion of which was the Canistear reservoir, which is located 20 above this point on this stream.

MR. BOWEN: That is all. I offer the agreement in evidence, if the Court please.

MR. DUFFIELD: I object to it on the ground of its being immaterial and irrelevant, and not on the ground that it has not been properly proven.

(The same is marked exhibit D1.)

30

ALONZO C. HUNT, sworn for the complainant, testifies as follows:

Direct Examination, by Mr. Duffield:

Q. Dr. Hunt, where do you reside?

A. At Metuchen, New Jersey.

Q. You are employed by the State Board of Health, are you not? 40

A. I am.

Q. In what capacity?

A. As Medical Inspector and Assistant Secretary of that Board.

Q. In the discharge of your duties have you especially the charge and care for the purity of the water supply?

A. I have been charged with the oversight of that section of our work.

10 Q. You are a doctor of medicine, are you not?

A. I am a physician.

Q. A graduate of what institution?

A. College of Physicians and Surgeons, New York city.

Q. Graduated when?

A. 1881.

Q. How long have you been the Assistant Secretary of the State Board of Health?

A. Well, I have not occupied that position but for a few years. I originally was inspector of the Board, and
20 have served in that capacity from about 1886 or 1887.

Q. And during that time you have been constantly engaged in the work of examining alleged sources of pollution of water supplies?

A. Only since the law was passed giving the State Board of Health power to make those investigations.

Q. Since that time you have been engaged actively in the work of investigating sources of pollution?

A. I have.

Q. Are you familiar with the property of George Ihnken, the defendant in this case?

30 A. I have been on the premises of Mr. George Ihnken, the defendant.

Q. Can you recall how you first came to learn of this situation up there?

A. The attention, I think, of the State Board of Health was directed, by, I think, the Newark Board of Health, to certain contaminations on the Pequannock water shed, and we then took up the investigation for the purpose of ascertaining the character of the pollutions in that section, and to take whatever action was indicated in each given instance.

Q. Did you make a personal examination of these premises?

A. I have inspected the premises, I think, four times since 1905.

Q. Will you please tell us what the conditions are there?

A. The drainage from the creamery at the time of, I think, the first inspection, which was on June 29th, 1905, showed that sewage from the creamery was conducted by trough to a short distance from the creamery and there fell upon the ground, and from that point it was conveyed to what is known as a branch of the Pequannock river itself. This ditch through which it runs is on the north side of the Susquehanna and Western Railroad, and at that time I paced the distance from the end of the trough to the stream itself, and the distance is approximately seventy-two feet, as I remember it. Upon making another inspection, I found that there had been an addition made to the length of the trough, so that the liquid waste from the creamery was conveyed to a somewhat nearer point to the stream. 10 20

Q. What is the character of this liquid which was being conveyed to the stream?

A. It was of a milky character, which you would expect to find from a creamery. I traced it from the end of the trough to the stream itself, although it runs further in between the rocks before it reaches the stream, nevertheless it was traceable from the end of the trough to the tributary of the Pequannock river. The examination that I made on August 30th, I took occasion to get down over the stream to follow the liquid waste, and foul odors were noticeable as arising, this being due, I suppose to decomposition of the material of the liquid. 30

Q. Doctor, is it injurious to a water supply to place in it decomposed matter of any character?

A. I do not believe that anything should be added to a water supply that is not as pure as the water itself.

Q. Do you consider that the substance which you saw being deposited there would tend to impair or corrupt the character of this water?

A. I should certainly say that it would.

Q. In what way?

A. I think that any washings in which the hands of 40

individuals have been placed is liable to create a condition of material which is added to the stream as to render it corrupt and impure.

Q. Doctor, what is the purpose of making bacteriological tests in water supplies?

A. I don't know as I am qualified to state.

Q. I am not asking you how the tests are made, but I mean to say, in a general way, why do they make those tests?

10 A. To find out what the character of the water is from a bacteriological standpoint.

Q. Is the presence of bacteria in any considerable quantity in a water supply injurious to the water supply?

A. I think that that matter is relative. The typhoid bacillus, as I understand it and have understood from quite some reading, is very seldom detected when it is in water in large dilution. It might be present and a bacteriological examination would not reveal it at all.

20 Q. Is it or not a fact that where the sources of contamination can be traced with some degree of certainty that a bacteriological examination is unnecessary?

A. I think that I have read of cases where there have been large outbreaks of typhoid fever where the bacillus was not detected at all in the water that was known to have produced the disease; that, where, for instance, a privy vault was located over a stream, and upon these premises individuals residing who had typhoid fever, and the refuse from these patients have been placed in the stream itself and have caused a large epidemic. I have read of large numbers of instances of that kind.

30

Cross Examination, by Mr. Bowen:

Q. I understand you to say that this water was milky in appearance as it came from the trough and fell on the ground?

A. It differed somewhat at various inspections; sometimes a little darker, and sometimes more milky, I imagine due to the mass of milk that had been obtained from the washing of the bottles. That was the operation that was going on.

40

Q. You saw them washing the bottles?

A. I saw them.

Q. They were bottles that had been brought in?

A. Returned, as I understood it, to the creamery.

Q. And in all probability the contents of those bottles was sour?

A. I suppose generally it is sour when the milk is allowed to remain for a long time.

Q. You are familiar with creamery operations?

A. I have smelled some very sour bottles and some nauseating ones in my day.

Q. You were asked on your direct examination whether the presence of bacteria was detrimental to health?

10

MR. DUFFIELD: The question I asked was whether it was necessary in order to determine the subject of injury to make a bacteriological examination.

Q. Would the presence of bacteria, independent of the quality of bacteria, affect the purity of the water, so far as its potable use is concerned?

20

A. That, I suppose, would depend upon the character of the bacteria.

Q. Do you know, Doctor, as a physician, what kind of bacteria are inimical to the human body and which may be taken through water?

A. I could not give a list of them, but I know several that are.

Q. And do you know whether those bacteria can live in the presence of acid?

A. I have read in several works on the subject, that it is absolutely impossible to determine the length of life of bacteria. The conditions cannot be determined, and I could not state positively how long a bacillus might live in any given water.

30

Q. When milk sours as it comes from those bottles when it is sour milk, it contains lactic acid, does it not?

A. I think it does.

Q. Now, lactic acid is destructive of disease producing germs, is it not?

A. I should not wish to answer that question, because my knowledge is not sufficient in regard to it.

40

Q. The principle disease producing germs are the germs of typhoid fever, and the sperm of cholera?

A. Yes, those are two of the chief water-born germs.

Q. Is your knowledge confined to your personal knowledge or what you have read generally?

A. It is from reading entirely. I am not a bacteriologist. I am simply a medical man, and employed by the Board of Health in this work.

10 Q. But your testimony as to bacteria and so on, or as to the danger of impure water or supposedly impure water, is founded partly on your personal knowledge and investigation, and partly from books which have been accepted as authorities.

A. Yes, mostly in that way that I have obtained the information I have.

Q. Do you think that from this trough lactic acid came?

20 A. I don't know whether it did or not. I merely saw that there was a sour, foul smelling liquid flowing through the trough. That is, the odor was perceptible to me as I leaned over the trough, and more so over the brook where it had been remaining for a longer time.

Q. You say that the water came from the trough and entered the stream?

A. I followed it until I saw it enter the stream, and from the point which is around the outlet of the ditch, there was a little deposit of whitish material, showing that there was a continuous discharge of this drainage from the creamery into the river itself.

By the Court:

30

Q. Did you observe the effect of this discharge upon the water of the river at the very point where it flowed in?

A. The only fact I observed was at the point. There was clearly evidence that this material which I had followed down to the point did actually enter the stream itself, and also in its course down it was foul smelling.

Q. And do I understand that at the point where the water flowed into the stream, you could not see the water, it flows in below the ground?

40 A. No, it is on the surface. It is near a bridge that

crosses the Susquehanna tracks. The tracks run east and west, and the creamery is placed on the north side of the road. This ditch, if it were on a flat surface, would cross the railroad. It is really about ninety feet from the creamery. This little brooklet enters the river itself.

Q. Now, right at that point where the discharge enters the stream, did it discolor the stream perceptibly?

A. It did discolor it for a short distance.

10

Q. For how great distance?

A. I shouldn't say for over three feet of the stream. It had percolated through the rock and some of the discoloration had left it.

Q. At that point does the stream run rapidly?

A. It varies very much. In time of freshets it is a swift stream. As I remember, there is a reservoir above.

Q. Can you give us an idea of the amount of the discharge into the stream when you saw it?

A. At the time when I was there, running through the trough the stream was as large as my two fingers, the depth of my two fingers; but that varies at different times, if the tanks in which they are washing are discharged. If you keep back the tanks in which the bottles are washed and then empty it, you get a flush down through the pipe.

20

By Mr. Bowen:

Q. You say right at the point where the water entered into the stream, you found some whitish substance?

30

A. Well, at the bottom of the stream itself, there was a furry, dark brown discoloration.

Q. When you say you observed a foul odor, you mean that you observed a foul odor between the end of the trough and where the water entered the stream?

A. Yes, it increased from the end of the trough to the stream itself, because at a lower part, there were more rocks, and I suppose that the organic matter had been intercepted at that point, and therefore decomposition went on more freely.

40

Q. As a matter of fact, in running from the end of the trough to the river, organic matter had been intercepted?

A. Not intercepted entirely, because I saw it at the other end of the stream itself.

Q. Some of it had been intercepted?

A. Only very—partially.

Q. Now, is organic matter injurious to human health?

A. Well, I believe that anything that is in a state
10 of decomposition is not beneficial for internal use.

Q. But is it injurious?

A. It is injurious.

Q. What makes you think so?

A. Because I know so.

Q. Why do you know it is so?

A. Why, I think that any decomposing material is liable to produce in the system conditions which are not conductive to health.

Q. Diseases are introduced into the human system| through water only through bacteria? Is that not
20 true?

A. Actual disease, yes, but not the undermining of health, in reducing the standard of immunity which comes from anything that is impure.

Q. A person, in order to contract disease from from drinking water must drink water impregnated with disease carrying bacteria or disease producing bacteria? Isn't that true?

A. In certain given diseases, yes, it is true; for instance, typhoid fever and cholera; but the use of any impure water certainly is not beneficial to the system,
30 and you get the standard of immunity reduced, and the person is not in position to resist disease. And in addition to that, from the medical standpoint, the use of impure water has a prejudicial effect upon the kidneys themselves and other excretory organs.

By the Court:

Q. I suppose, Doctor, dirty water of any kind impairs the quality of drinking water, doesn't it?

A. That is my view of it entirely. Water is supposed to be pure, and anything that is added to it or
40

taken from it really tends to impair its quality as a potable water.

By Mr. Bowen:

Q. Do you know whether or not, Doctor, as a matter of fact, typhoid germs and cholera germs will not propagate more freely in absolutely pure water than in water containing other bacteria in large quantities?

MR. DUFFIELD: That is not quite a fair question, considering the fact that the Doctor stated at the outset that he did not pretend to be a bacteriologist, and the only questions I asked were directed to a general knowledge as to what the presence of bacteria would indicate to an expert in water supply? 10

THE COURT: The Doctor has stated frankly that he is not a bacteriologist. I cannot say that it is not a proper cross-examination, in view of the questions that have been asked.

(Question read.) 20

THE WITNESS: I do not.

Q. Do I understand you to say that you do not know one way or the other?

A. I say, as the question is put, the only answer I can make is I do not. I may not have understood the question.

(Question again read.) 30

MR. DUFFIELD: Does the answer mean that you don't know?

THE WITNESS: I mean that I don't know.

Q. In your judgment, is sour milk unhealthy?

A. It depends upon how old it is, and entirely how long it has been kept. I think that any extremely sour milk is unhealthy after it is beyond the stage of butter milk. 40

Q. Twenty-four hours old?

MR. DUFFIELD: Certainly, at this point in the case, there is no proof that this substance going in is sour milk, and there is certainly no proof that it is sour within twenty-four hours.

THE COURT: I will allow it. The Doctor has testified as to the character of the discharge, and that opens a
10 pretty wide door to the cross-examination.

(Question read to witness.)

Q. Is sour milk twenty-four hours old unhealthy?

A. I should like to add that that I should say that any sour milk that causes a foul odor would be prejudicial to the individual.

By the Court:

20 Q. If perfectly pure, sweet milk is poured into drinking water, can you say whether after a time the drinking water will be rendered impure and its quality impaired?

A. I should say that the addition of milk is a foreign substance to water, and as such it would render the water impure from that standpoint.

Q. That is to say, if there had not been decomposition?

A. Certainly. I do not think that milk is intended to be added to water for that purpose to improve the
30 quality of the water supply.

By Mr. Bowen:

Q. You have heard, I presume of Strauss milk?

A. Yes, in New York city, you refer to?

Q. You know that Strauss milk is produced by the addition of a large quantity of water to milk?

A. I was speaking of adding milk to water.

Q. What difference is there?

A. You have a standard of pure milk, and a standard of pure water. Now, adding milk to water, you
40

change the standard of the water, and adding water to milk is changing the standard of the milk.

Q. As a drink, they are all the same, taken into the body, are they not?

A. I don't think I am an expert on mixed drinks.

Q. Now, cheese smells, does it not, many kinds of cheese?

A. Some cheese smells some times.

Q. And would you say that because cheeses smell they are unhealthy, because they give foul odor?

10

A. No, I should not.

Q. So that the foul odors do not indicate anything in themselves, do they?

A. It generally indicates some decomposition of some kind going on.

Q. But whether that decomposition would cause disease producing bacteria, you don't know?

A. That decomposition, no; oh, no, I should not add cheese to water any more than I would milk.

Q. But whether the decomposition of milk or water would increase disease producing bacteria in that way you don't know?

20

A. I am not qualified to answer that question.

Re Direct Examination by Mr. Duffield:

Q. This milk that has been referred to in New York, that milk is Pastuerized?

A. It is Pastuerized milk, and is used for infants in the summertime.

Q. And is weakened for the purpose of rendering the milk more easily digested?

30

A. Yes, by the children.

Q. And also subject to a treatment which will destroy the germs that are in the milk or in the water?

A. It is supposed to be Pasteurized.

By the Court:

Q. And after that it does or does not decompose?

A. It keeps a long time, as the result of the destruction of some of the bacteria.

40

By Mr. Duffield:

Q. In regard to the question which was asked you as to the character of the bacteria. Assuming the presence of a large quantity of bacteria which were non-pathogenic, would that or would it not be an indication that pathogenic organisms might be present, even though their identity might not be disclosed?

10 A. With a large quantity of bacteria present, the deduction would be that other bacteria are present, not necessarily determining what class those bacteria might be.

Q. Are not the tests which are made by bacteriologists made for the purpose of determining any bacteria, on the theory that if any bacteria are present, harmful bacteria may be present, even though their identity are not disclosed?

A. I don't think I can answer questions of this type.

MR. DUFFIELD: I will withdraw the question.

20 MR. BOWEN: That entire line is withdrawn?

MR. DUFFIELD: Yes, he says he cannot testify to it, and I will withdraw the question. I will withdraw the question and answer, except what related to this—

THE COURT: The question has been answered and the witness says he is not qualified.

Re Cross Examination, by Mr. Bowen:

30 Q. I understand you to testify to this fact, that the presence of a large quantity of bacteria would indicate the presence of pathogenic organisms?

A. No, I don't think that is the answer that I made to the question.

Q. Are you qualified to express an opinion on the question whether the presence of a large quantity of non-pathogenic bacteria would indicate the presence or absence of pathogenic bacteria?

A. I don't think I am.

HENRY MITCHELL, sworn for the complainant, testifies as follows:

Direct Examination, by Mr. Duffield:

Q. Where do you reside?

A. Asbury Park.

Q. You hold an official position with the State Board of Health, do you not?

A. Yes.

10

Q. Member of that Board and Secretary?

A. Yes.

Q. Did you ever visit the creamery of George Ihnken, the defendant in this case?

A. Yes, in June, 1905.

Q. And will you describe briefly the conditions which you found there, Doctor?

A. I found the floor wet, and that the bottle washing had just been finished, and that the discharge was still flowing, to some extent, through the outlet, that is to say, the drain which takes the waste from the floor, which in turn takes the waste from all the other fixtures in the room. This discharge was conveyed through a wooden trough into a ditch, and the ditch discharged into the stream which flows near the creamery.

20

Q. What was the character of that discharge, Doctor?

A. It was slightly opaque at the time of my inspection. It was evidently the material which had discharged from the floor of the creamery.

Q. Did you notice its odor, if any?

A. No, I didn't note any odor.

30

Q. Did you trace the flow down to the stream itself?

A. Yes, but I didn't go down through the bushes to see the point of discharge. Dr. Hunt, who was with me at that time, has described the conditions which he found there.

Q. You yourself did not examine it or where it actually went into the stream?

A. No.

Q. Was this liquid of a character that would or would not tend to impair the quality of a drinking water?

40

A. In my opinion, it would corrupt the drinking water.

Q. In what way, Doctor?

A. It is dangerous to put fluids of this character in a public water supply, because the containers of the milk are liable to be smeared with material, with filth, with excrement, and with material from dirty human hands.

10 Q. Can a water which is used for washing persons or implements or utensils be placed safely in potable drinking water?

A. I think not.

Cross Examination, by Mr. Bowen:

Q. I understand you to say that this water, as you observed it coming from the stream, or coming from the end of the drain, was opaque?

A. Yes.

Q. Of what color?

20 A. Milky.

Q. And did you observe any smell from it?

A. I did not endeavor to detect the odor. Dr. Hunt did.

Q. But if the odor was perceptible, you would have noticed it, would you not?

A. Probably not. My relation to the stream, to the ditch, I suppose I was standing up on the edge, and probably my nostrils were eight or nine feet away from the ditch.

Q. How far away?

30 A. Eight or nine feet.

Q. And at the distance of eight or nine feet, you could not detect any odor?

A. I did not, no.

Q. Were you this eight or nine feet away from the end of the drain?

A. Well, we walked along the border of the ditch. That is my estimate. I am not very sure of the distance. I suppose my height is between five and six feet, and there were several feet in addition, and I judge it was that distance.

40 Q. Now, your opinion as to whether the character

of the water of this stream is impure or not, is based on the liability of contamination arising from the washings of the exterior of the cans?

A. Mostly, not entirely.

By the Court:

Q. Cans or bottles?

By Mr. Bowen:

10

Q. Cans or bottles?

A. Both.

Q. The exterior?

A. Yes.

Q. The handling of them with the human hands, or the liability to animal excrement?

A. Not animal excrement exclusively.

Q. Well, with dirt that naturally sticks to the human hands in handling?

A. In order to make my reply clear, I think an explanation is needed. This creamery is not supplied with a convenience for defecation. The employees, I was told upon inquiry, go into the bushes. 20

MR. BOWEN: As far as that evidence goes, being hearsay, I don't think it is proper.

THE WITNESS: It was not entirely on hearsay. I verified the statement going myself and seeing the faeces within about twenty feet of the building in one case, but walking about these premises and walking on the floor of this creamery greatly increases the danger in this particular case. 30

By the Court:

Q. You discovered at this time in June, 1905, that the water flowed into this trough from the floor of the creamery?

A. That is, the washings from these receptacles, these cans and bottles, went onto the floor.

Q. What kind of floor was it?

40

A. A wooden floor.

Q. A tight wooden floor?

A. I suppose the boards were swollen, in fact, so that it was practically tight.

Q. And did the water flow from all parts of the floor uniformly toward this spout, or was there a ditch or channel in the floor?

A. I didn't observe any grade, but I should think that they must reach this channel, at least this point, by sweeping or otherwise. I am not sure of the conditions there.

Q. And you observed the orifice from the inside?

A. Yes.

Q. And was that down to the floor, level?

A. Yes.

Q. And how large was it?

A. Well, I don't know. I don't know. The construction that carried the waste water from the floor down to the point of exit.

Q. But, I speak now of the point of exit, the orifice at the side of the building?

A. Oh, yes.

Q. How big was that?

A. I should think that was about, perhaps, four by four, or six by six.

Q. Inches or feet?

A. Inches.

Q. And was the inside of the building wet?

A. Yes, the floor was wet. They had just finished the washings apparently, when I made my inspection.

30 *By Mr. Bowen:*

Q. That was when that you observed this?

A. Beg pardon?

Q. When—what time?

A. Soon after the level was drained.

Q. About what date?

A. It was the latter part of June, last year.

Q. And was the floor water-tight?

A. I don't think so.

Q. So that the water which got on to the floor could
40 percolate into the ground without going through that drain, could it not?

A. I don't think much of it went that way. The floor was soaked with water, and evidently most of the water went to that opening and was discharged through the drain. Possibly some might have dripped down through the floor. I am not sure.

Q. Do you recollect whether you did not personally order the floor to be made water-tight?

A. I gave no directions whatever. I might have made suggestions, but I didn't give directions.

Q. Do I understand you to say that you are Dr. 10
Mitchell?

A. My name is Mitchell, yes.

Q. Doctor, state whether the signature to that letter is yours (showing witness letter)?

A. Yes, evidently, it is.

MR. DUFFIELD: I think I am entitled to examine it.

MR. BOWEN: (Hands letter to Mr. Duffield.)

(The same is marked exhibit D2.)

20

Q. Have you read this letter, Doctor (hands same to witness)?

MR. DUFFIELD: I object to that letter as being irrelevant and immaterial.

THE COURT: It is not offered yet.

MR. DUFFIELD: Do you want that marked?

MR. BOWEN: It has been marked.

30

Q. Was this letter written before or after you had made your inspection of this creamery?

A. I didn't notice the date of it.

MR. DUFFIELD: I object to any examination of the letter on the ground that the substance of the letter is irrelevant and immaterial, and has no bearing on the issues of this case.

THE COURT: I will allow the question.

40

THE WITNESS: What is the date of the letter?

MR. BOWEN: June 28th, 1905.

THE WITNESS: I am not sure of the date. It was about the time. It was the latter part of June that I visited the creamery.

Q. You don't know whether this letter was based on
10 reports made to you or upon a personal inspection?

A. The letter was written in response to a written report that was received in the office of our Board, and if I remember right, my inspection was subsequent, but I am not sure.

Q. If, at the time that you wrote this letter, you knew that the washings from the floor went into this trough and then into the stream, would you have ordered the floor to be made watertight?

A. Well, on general principles, all creamery floors should be made water-tight. They should not ever be al-
20 lowed to be pervious and permit fluids to go on the ground, because decomposition is set up and you have offensive odors and gases which are liable to pollute the milk.

Q. Do you know that to be a fact as a bacteriologist, or how?

A. Not as a bacteriologist.

Q. Upon what do you base your opinion that if water is permitted, or waste water is permitted, to flow on the ground, it causes gases or other things which are liable to produce disease breeding germs?

30

MR. DUFFIELD: I object on the ground that it is not cross-examination and it is not material.

THE COURT: How is it cross-examination?

MR. BOWEN: The Doctor testifies that this water is contaminated, and that is practically the substance of his direct examination. Now, it seems to me, that—contaminated by reason of the injection of this water, waste water, into the stream—it seems to me that any-
40 thing which will show that the Doctor is not capable of

passing an opinion on the thing is proper cross-examination.

THE COURT: But you have travelled away beyond the matter which you have stated. You have shown the Doctor a letter, a letter, which, of course, is not admissible in evidence now, if it ever will be, and you are now questioning him about whether he wrote that letter, and you have got him to explain that he wrote it apparently, he indicates that he wrote, to protect the milk supply, to prevent the milk from being the source of disease, and he says that all creameries ought to have water-tight floors and he explains why, because otherwise there is liable to be decomposition around the building where the milk is bottled. 10

MR. BOWEN: I withdraw that.

Re Direct Examination by Mr. Duffield:

Q. You testified that the day you went up there that you made an examination in regard to the methods used by the employees, resulting in the deposit of excremental matter close to the building from which this water was running. Is that so? 20

A. Yes.

Q. Did you examine the floor of the building to see whether any of the excremental matter had been tracked in?

A. Oh, no, but I assumed that if it was on the ground in the vicinity of the building, that there was great liability, almost a certainty, that it would be tracked in, more or less. 30

Q. Did you find such substance was in the close vicinity of that building?

A. Yes, I did.

Q. Assuming that such excremental matter should dry, would the bacteria float naturally on the air and deposit itself on the floor?

A. I am of opinion that the dried faeces would be liable, under some conditions of air currents, to be brought into that building.

Q. Doctor, would you consider that the water which 40

had been used for the cleansing of a floor in the immediate vicinity of which human excremental matter had been deposited, was a substance which would or would not tend to corrupt or impair the quality of a potable water?

A. In my opinion, it would tend to impair and corrupt.

Re Cross Examination, by Mr. Bowen:

10 Q. Was this excremental matter on the same side of the railroad track that the creamery is on?

A. Yes, as I remember the location of the railroad track, the points of deposit where people had gone out and emptied their bowels was on the same side of the railroad track that the creamery was on.

Q. How far from the creamery building?

A. The nearest one that I saw, as near as I can tell at this minute, was thirty feet.

Q. And were there roads leading up to this creamery,
20 travelled roads?

A. There is a road leading up to it, yes.

Q. And employees and others would naturally go along that road and not in through the bushes, isn't that so, to the creamery?

A. I don't quite—

Q. They take the road. The road is more convenient than from the bushes to get to the creamery?

A. There are not many bushes there. The locality in the vicinity of the creamery is rather open, but it is secluded somewhat. The nearest dwelling is across the
30 little brook, quite a way off.

GEORGE W. MCGUIRE, sworn for the complainant, testifies as follows:

Direct Examination, by Mr. Backes:

Q. What is your position?

A. Chief inspector of food and drugs.

40 Q. And you have been for how long?

A. Since the enactment of the law in 1901.

Q. Prior to that time did you hold any position under the government of this state?

A. State dairy commissioner.

Q. Has it been your duty to visit creameries?

A. Yes.

Q. To inspect them?

A. Yes.

Q. Do you know the creamery of George Ihnken, the defendant in this cause?

10

A. I do.

Q. Where is it located?

A. At Stockholm, Sussex County.

Q. Have you visited that creamery?

A. Yes.

Q. When?

A. On the twenty-first of June last.

Q. Kindly state what you found there and the condition in general of the creamery?

A. I was there for the purpose of making somewhat of a sanitary examination and to get some statistical information with reference to the quantity of milk that was received there and how they handled it, and so forth, and I found they took in about 2,000 to 2,400 quarts of milk, I think, per day, and that they bottled the milk and shipped it to Mr. Ihnken at his place of business.

20

By the Court:

Q. Within the state as well as without the state?

A. Without the state, I think he shipped it.

Q. How were you interested in examining the conditions at the creamery, if the entire product went out of the state?

30

A. Because the creamery itself was within the state.

Q. And you examine every creamery?

A. We examine every creamery.

Q. Even if the entire product goes out of the state?

A. Sure, yes. I found that all the waste fluids were discharged into wooden troughs under the floor, and so on out to a trough on the outside of the creamery leading to within ten or fifteen feet of the Pequannock river, as I was told it was at that time. I didn't know until

40

I had about gotten through with my investigation, that that stream supplied the City of Newark with water. I reported also that while the floor of the creamery seemed to be in a perfect condition, yet on going under the creamery——

MR. BOWEN: He is testifying to a report that he made.

THE COURT: He is telling what he saw.

10 Q. Just describe what you saw?

A. I say, while the floor seemed to be in a perfect condition, I went underneath the creamery, underneath the floor, and found the water dripping through from the floor above, and I so stated to the secretary of the Board.

Q. Where was it dripping on the ground below?

A. On the ground below the creamery.

Q. Did you examine this trough?

A. Yes

20 Q. Was there any liquid flowing through it when you were there?

A. They were engaged in bottling milk while I was there, and there was just a small quantity of water going through.

Q. What was the color of the water?

A. Well, it was of an opaque character.

Q. And where was that water deposited?

A. Finally?

Q. No, from the trough?

A. On to the ground, near the Pequannock river.

30 Q. And did you follow the course of the water after it was deposited on the ground?

A. Oh, no.

Q. To see whether it flowed into the Pequannock river?

A. Oh, yes, I saw it flowed into the river.

Q. You saw that?

A. Yes, I saw that. It just is a very small stream trickling down.

Cross Examination, by Mr. Bowen:

40 Q. You say this water was opaque. Of what color?

A. Well of a kind of light watery milk—like watery milk. It was going over the floor. They were bottling milk and they were spilling more or less milk on the floor and this water dripped into this trough beneath and flowed on—a very small quantity of it while I was there.

By the Court:

Q. Where was the trough that you speak of?

A. Underneath the floor, and then led out to an open trough on the outside. 10

Q. And did you see an orifice in the side of the building?

A. In the floor. The discharges went through a hole in the floor into this trough.

Q. And where was that hole?

A. Well, I just don't recall just the exact position of these holes. I think there were several of them that took the supply, made on purpose for it, if I recall right.

By Mr. Bowen:

20

Q. Was there enough of this watery fluid that came through the trough at the time you were there to be able to trickle down to the river?

A. I don't know. I didn't follow that ditch particularly. I saw the little water there and then I walked down to the brook or to the river, and I noticed a little very fine stream in this little open ditch running from the end of the trough.

By the Court:

30

Q. Where was this that you made this observation when you saw the little fine stream?

A. From the end of the trough to the brook, to the stream.

Q. To the ditch?

A. To the ditch—no, that was a ditch running from the end of the trough to the stream.

Q. Did you go down to the stream?

A. Yes.

Q. And you saw then where this fine stream of water enters the brook?

40

A. Yes.

Q. The Pequannock river?

A. Yes.

Q. And what did it look like there?

A. I didn't notice any discoloration there when I was there.

Q. Any discoloration where?

A. In the brook, in the river.

Q. But did you see the color of the water at that point
10 where it flowed in?

A. Yes. I don't think it was quite as milky when it got to that point as it was when it was above.

Q. Then, at the point where it ran into the Pequannock river, did it produce discoloration, just at the point where it went in?

A. I don't recall that it did.

Re Direct Examination, by Mr. Backes:

Q. Where did this water come from which flowed
20 through this trough, do you know?

A. Well, they use more or less water in the creamery all the time when they are at work there, and this seemed to be coming from the floor, I presume.

Q. And not from the vats and cans?

A. No, they were not engaged in anything else except bottling milk when I was there.

MR. DUFFIELD: I have one other witness, but apparently he will not be able to reach here until half-past one. I have telegraphed for him and will have him here.
30 The evidence will be largely in the character of rebuttal, as I infer from my friend's cross examination.

MR. BOWEN: Is that bacteriological testimony? It may shorten the case considerably.

MR. DUFFIELD: As far as that goes, I will say frankly that I propose to offer him for the purpose of showing that a substance such as this, would contain harmful bacteria, and show the lack of necessity for a bacteriological test; and that such a substance placed in the
40 water might tend to impair the water ten miles below,

while a bacteriological examination would not show a pollution. I assume that it would be quite proper for rebuttal.

THE COURT: Why can't you go on, Mr. Bowen, with anything that you have got, after this statement?

MR. BOWEN: I can go right ahead. If it appears from the testimony of the state's bacteriologists that the bacteria which are formed are not such bacteria as are inimical to human health, but that the bacteria formed are really beneficial— 10

MR. DUFFIELD: Suppose we rest.

COMPLAINANT RESTS.

GEORGE IHNKEN, sworn for the defendant, testifies as follows: 20

Direct Examination, by Mr. Bowen:

Q. Where do you reside, Mr. Ihnken?

A. No. 194 19th Street, Brooklyn.

Q. In the State of New York?

A. New York, yes.

Q. And for how long have you lived there continuously?

A. Between twenty-five and thirty years.

Q. You resided in Brooklyn at the time of the commencement of this suit? 30

A. Yes.

Q. You carry on a creamery business at Stockholm, Sussex County?

A. Yes.

Q. How long have you carried on the creamery business there?

A. I don't know exactly—in the neighborhood of fifteen years.

Q. In the same location as it is now carried on?

A. Yes, the same place. 40

Q. Who owns the ground?

A. The New York, Susquehanna and Western Railroad.

Q. But under what right do you occupy it?

A. Verbal lease.

Q. For how long?

A. Until such time as it is required for railroad purposes.

Q. Now, on this land there is a creamery building?

10 A. Yes.

Q. Does this creamery building adjoin the railroad track?

A. Well, there is just probably two or three feet between—there is just room enough for a car to go by.

Q. Just state briefly what the business carried on there is?

A. The receiving of milk, washing the cans and bottles, filling them and shipping them out.

Q. Washing cans and bottles after they are returned?

A. Yes, from the city, of course.

20 Q. Where does this milk go to from the creamery?

A. From the creamery, shipped on the cars to Brooklyn.

Q. Farmers bring in their milk?

A. Yes.

Q. Bring it in in cans and bottles?

A. Not in bottles, in cans only.

Q. And then what is done with the milk when they bring it in?

A. It is received by my men there and measured and put in the vat to be cooled. After it is cooled, it is
30 bottled and some of it is shipped out in cans.

Q. Are the empty cans which come back from Brooklyn washed before they are refilled, washed in your creamery?

A. No, sir, they are washed up there before they are refilled.

Q. In Stockholm?

A. Yes.

Q. Before they are refilled?

A. Yes.

40 *By the Court:*

Q. The question is as to the empty cans. When you ship cans to Brooklyn filled with milk, a little later those cans are returned, are they not, returned to you or the farmer?

A. They are returned to the place up there and are there washed and then returned to the farmer.

Q. You wash them?

A. Yes.

By Mr. Bowen:

10

Q. Now, where do these washings go?

A. Into a wooden trough down into the stream.

Q. These washings consist of what?

A. Why, simply the milk and water, whatever comes out of the cans.

Q. That are returned from Brooklyn?

A. As the cans are returned from Brooklyn. There might be some milk—

Q. Is that milk sweet or sour?

A. I couldn't say as to that—sour, I suppose. It 20 would depend on the time of the year.

Q. How many milk-cans do you wash there a day at that creamery?

A. Around sixty, I think, about. I am not positive about it.

Q. And how many milk bottles?

A. Twelve hundred, I should judge.

By the Court:

Q. Do you use cool or warm water?

30

A. Hot water. That is, we heat the water with live steam.

By Mr. Bowen:

Q. Where do you get your water from?

A. From the stream across the mountain. We have got a spring by up on the side of the mountain, and a pipe runs down and fetches the water to the building.

By the Court:

40

Q. How large a pipe is it?

A. I should judge an inch.

Q. Have you any idea how much water goes through your creamery?

A. How much? No, sir.

Q. Every day?

A. I couldn't say. That pipe is running continually twenty-four hours—whatever an inch pipe will mean.

Q. And does it run into a tank?

10 A. It runs into a vat, yes.

Q. Is that vat where the milk-cans are set to cool the milk?

A. Yes. It is also run into a wash-tub, different pipes.

Q. And the water from the wash-tubs and this vat eventually flows into this trough and so on into the stream?

A. Yes.

Q. Are the cans which contain the milk which are put into the vat to cool, are they put there just as they
20 come from the farmers?

A. Yes.

Q. Lifted out of the wagons and then lifted into the vat?

A. Yes.

By Mr. Bowen:

Q. How long have you been in the creamery business there?

A. About the length of time stated, fourteen or fif-
30 teen years.

Q. What do you do? Do you simply take all the milk the farmers bring you, or are you under contract?

MR. DUFFIELD: Objected to as immaterial.

THE COURT: Yes, how is that material?

MR. BOWEN: I want to show, as I say in my answer, that this injunction would be damaging, because we are under contract to take the milk that is brought there,
40 under contract to the farmers.

THE COURT: How can you escape the force of these cases, the Diamond Mills Paper case and these earlier cases?

MR. BOWEN: I propose to show, or to contend, that we do not introduce any substance which injures the stream.

THE COURT: Which pollutes the stream where?

10

MR. BOWEN: At any place.

THE COURT: What has this question to do with that issue?

MR. BOWEN: That is only one question. That is one of the questions, whether we do pollute the stream.

THE COURT: But you are asking this witness about certain contracts with farmers. What has that got to do with the question as to whether he pollutes the stream? I see no relation between this matter that you are endeavoring to bring out and any issue in this case. 20

MR. BOWEN: My contention is this: That this being a Court of equity, if I could show the circumstances, for instance, the continuation of this for a long time with the acquiescence of the State Board and the acquiescence of the City of Newark, permitting us to go on, they cannot come into a Court of equity, after being guilty of laches, and put us in a position where we must subject ourselves to a large number of lawsuits by reason of our inability to fulfill these contracts. 30

THE COURT: Isn't that the very same question decided by the Court of Chancery and the Court of Errors?

MR. BOWEN: That may be, but I think that here is a defendant who is a non-resident of the state, and as to him your honor may readily see that these decisions may not be final.

MR. DUFFIELD: Let me make one suggestion, that out- 40

side of the questions that your honor has raised, that this defendant sets forth in his answer that these contracts expired on the 24th day of March.

10 THE COURT: This matter of interference with contracts is only one element. You plainly are going to urge that this is an unjust, unwarrantable interference with the defendant's business, and that an injunction will subject him to great loss and prevent him from using his property in the way in which he has hitherto used it. Isn't that point entirely covered by this decision in the Diamond Mills Paper case, and also the other case of State vs. Wheeler?

MR. BOWEN: The position that I take is that these decisions—my contention is based on the rights given this defendant by the United States Constitution. He is a non-resident of New Jersey, and as to him your honor may see possibly that the decision of the Court of Errors and Appeals may not be final.

20 THE COURT: He stands in no different position at all, so far as the constitution of the United States is concerned from that in which every citizen of New Jersey stands. All citizens of New York and New Jersey are entitled to the benefit of their rights under the constitution of the United States, and if the legislature of the State of New Jersey impairs any of those rights, why you can go to the Supreme Court of the United State whether you have got a defendant resident in New Jersey or New York.

30 MR. BOWEN: Well, I will withdraw that question.

THE COURT: It really would seem from this Diamond Mills Paper case as if the only issue of fact here is whether the defendant is discharging anything into this stream, the Pequannock river, which pollutes it at the point where the discharge occurs, or tends to corrupt or impair the quality of the water of that river, the Pequannock river, at that place. That seems to be the rule.

40

MR. BOWEN: But the point I now urge was not the point litigated in that case.

THE COURT: Go on with your questions, Mr. Bowen.

By Mr. Bowen:

Q. Mr. Ihnken, please describe generally this creamery building and its appurtenances, what you have in there?

A. Oh, I could not—it is a building about 135 feet long, probably twenty feet wide, some parts, and some parts wider. It has sanitary machinery, consisting of coolers, milk pumps, filters, bottle washing machines, boiler and engine and bottling table, churn, butter worker, and other things that we use in the business—some small things that I cannot just recall. 10

Q. And who owns the building and machinery?

A. I do.

Q. How does the amount of washings from the creamery at the present time compare with the washings, say ten or twelve or fifteen years ago? 20

MR. DUFFIELD: Objected to.

MR. BOWEN: I want to show the amount.

THE COURT: Well, I will take it.

THE WITNESS: There might possibly be a little more water used now than there was then. I cannot exactly recall the number. 30

Q. During all the time that you have been there, has the water been discharged the same way as now?

A. In the same manner, about.

Q. And through this same trough?

A. The trough might have been renewed, but we have had a similar one.

Q. Could anybody passing there have seen this drain?

A. Why, yes.

Q. Were there any objections ever make to your 4C

discharging that water into that stream until the receipt of this letter?

MR. DUFFIELD: It seems to me that this is objectionable.

THE COURT: How is that competent?

MR. BOWEN: To show that the state is guilty of laches.
10 No objection was ever made to this discharge until the receipt of this letter in 1905.

THE COURT: Question over-ruled.

Q. Has any compensation ever been made or tendered to you for desisting from emptying these washings into this stream?

A. No.

MR. DUFFIELD: Objected to.

20

THE COURT: Question over-ruled.

MR. DUFFIELD: Then the answer should be stricken out.

THE COURT: Yes.

Q. Have any proceedings been taken to acquire whatever rights you may have to emptying into this stream?

30

MR. DUFFIELD: Objected to.

THE COURT: Question is over-ruled.

Cross Examination, by Mr. Duffield:

Q. You say you have this place on a verbal lease?

A. Yes.

Q. And yet you have gone to the expense of building this large building?

40 A. Yes.

Q. I don't know that this is competent, but I would like to ask this witness whether it is assessed as railroad property or personal property. Who pays the taxes on this?

A. I don't pay any on the ground. I pay taxes there, but I don't know whether it is on the ground or the buildings.

Q. How large is this building?

A. As near as I should judge, around 135 feet long.

Q. You do a pretty big business up there, don't you. 10

A. Yes, we fill 1200 bottles every day and ship a lot of can milk.

Q. There are no toilet facilities there?

A. No, sir.

Q. How many men do you employ?

A. Two.

Q. There is nothing there in the way of any drainage whatever in the way of a cess-pool?

A. No drainage, only this one.

Q. Everything that drains out of that building goes down this pipe? 20

A. Yes, all drains in that pipe.

Q. And you wash there 1200 bottles, and sixty cans of milk every day?

A. Not sixty cans of milk, but sixty cans.

Q. This floor is covered with water a good part of the time?

A. Not covered with water.

Q. Not covered with water, but water standing there all the time?

A. No, it pitches to the centre.

Q. Practically the entire floor is wet? 30

A. Yes, until it is cleaned up.

Q. And after this cleaning up, all these sweepings go down this drain?

A. Yes.

Q. Your business has not been decreasing in the last ten years?

A. No, sir.

Q. You are doing a good big business there today?

A. Yes.

Q. As a matter of fact, aren't you building a cess-pool up there to take care of these washings? 40

A. No, sir.

Q. Haven't you built one?

A. No, sir.

Q. Aren't you building one there?

A. No, sir. The railroad company dug one, but when they started to dig the water came out of the ground and I don't know whether they finished.

10

BENJAMIN H. DENNIS, sworn for the defendant, testifies as follows:

Direct Examination by Mr. Bowen:

MR. DUFFIELD: I am willing to admit that this witness, if examined, will testify to the same condition of affairs existing in the creamery as the previous witness testified to.

20 MR. BOWEN: That is about all I intend to prove.

MR. DUFFIELD: I wanted to ask him one question.

By Mr. Duffield:

Q. When this milk is brought in from the farmers, what is done with the cans then?

A. Why, it is cooled, put in these tanks and cooled.

Q. That is, cooled with water?

A. Yes, water and ice.

30 Q. When that tank is emptied it goes down through the drain?

A. Yes.

Q. That is all.

HARRY E. BRAMLEY, sworn for the defendant:

MR. DUFFIELD: Is this gentleman an expert?

MR. BOWEN: Yes, he is an expert.

40 MR. DUFFIELD: I should ask your Honor to grant an

adjournment until two o'clock until our expert witness arrives, so that he can rebut any of this testimony, if it is required.

NOON RECESS.

AFTER RECESS.

HARRY E. BRAMLEY, recalled for further examination, testifies as follows:

10

Direct Examination, by Mr. Bowen:

Q. What is your occupation, Mr. Bramley?

A. Sanitary expert.

Q. What experience have you had as a sanitary expert?

A. I was in the New York Board of Health for twenty years.

20

Q. In what capacity?

A. As a sanitary inspector, and as chief sanitary inspector, and I am now with the Lederle Laboratories, 519 Fifth avenue, New York City.

Q. And you have examined this property where this creamery is?

A. Yes.

Q. How recently?

A. On Tuesday of this week.

Q. Now, state generally the conditions, as you found them there?

30

A. I found this creamery located about a hundred feet from the stream, and it is divided into several parts. There are four rooms, I think, in the creamery proper—three rooms in the creamery proper—one was used as a cooling room. And that is where the pool is located in which the cans of milk are stored when they are received in the creamery. There is a running stream of water from a pipe into that pool to keep it constantly supplied with fresh water and the water from that pool overflows into this wooden drain that leads to the river, the stream. In the other room the bottles and

40

the cans are washed; and the bottles are filled with milk. There are three tubs in this wash room, and I should say there were about 250 gallons of water a day used.

Q. In that room or altogether?

A. Altogether there are probably between 250 and 300 gallons used; and the bottles and the cans are washed in these tubs, and these tubs are discharged after that washing has been done. They are discharged once a day, and they flow—

10 Q. Into the trough?

A. Into this trough which empties at a point about twenty or twenty-five feet from the stream, and then the water flows through a gutter or a channel which it has made in the ground to the brook or the river, and then empties into the river.

Q. What is the condition of the river at that point, still moving or rapid moving?

A. It is a rapid moving stream, I should say at the rate of four or five miles an hour.

Q. Did you examine the conditions generally of the
20 ground about there?

A. I did.

Q. What did you observe with regard to human or animal excrement?

A. I saw none about.

Q. Did you make an examination to ascertain whether there was any?

A. Yes.

Q. Is there any closet near there?

A. There is one belonging to the railroad station,
yes.

30 Q. Not on this property?

A. Not on that property, no.

Q. What knowledge, if any, have you with regard to the treatment of milk before it is received at the creamery?

A. The farmer usually cools his—

MR. DUFFIELD: I assume that this calls for a witness's general knowledge of the customary treatment of milk. It does not seem to me it either benefits us, nor do we learn from it whether this is or is not a polluted sub-
40 stance.

THE COURT: It is very difficult to see how that can possibly have any bearing on this case.

MR. BOWEN: I will strike out that question and show it otherwise.

Q. What was the color of the water discharged into that stream as you observed it?

MR. DUFFIELD: I object. This is the color of the water discharged into the stream, the substance of the water discharged into the stream through the drain? 10

MR. BOWEN: Yes.

MR. DUFFIELD: All right.

THE WITNESS: Why, it was a milky color, light milky color.

Q. In your opinion does the water which is discharged from this creamery into the stream pollute the public supply of water for the domestic uses of the citizens and inhabitants of the City of Newark? 20

MR. DUFFIELD: I object.

THE COURT: That raises the question which apparently is settled by these decisions. I suppose, Mr. Bowen, you intend to endeavor to show in this case that as a matter of fact no pollutive effect is exercised by this discharge at the place where the Newark water supply is taken? 30

MR. BOWEN: Yes.

THE COURT: Isn't that point settled by the Diamond Mills Paper case?

MR. BOWEN: I don't think that point was correctly raised in this case. My position in this case would be this: That the police power has regard to public health.

THE COURT: I think I ruled upon that, following these decisions. I indicated at the start that it would seem to me that that question might be raised, and I understood that you would raise it, but it hardly seems worth while to take any testimony in view of these decisions.

MR. BOWEN: Except that I want to get the record complete.

10

THE COURT: Well, you can make an offer that will cover it.

MR. BOWEN: I want to get the question on the record, and then of course, whatever ruling the Court makes will settle it.

(Question read.)

THE COURT: Your question is hardly definite, Mr.
20 Bowen. I suppose you mean to ask the witness whether this discharge can pollute the Intake at Macopin?

Q. At the Intake, from which the City of Newark takes its supply?

MR. DUFFIELD: I object also to that question.

THE COURT: It does not appear that the witness knows anything about the physical facts.

30 MR. BOWEN: I will withdraw that question for the present.

Q. You heard the testimony of the engineer? You were present this morning and heard the testimony of the engineer as to the physical facts, as to the flow of the water and the distance from the trough to the Intake?

A. Yes.

Q. And in your opinion, assuming the statements made by that witness as to the distance, being correct, in your judgment does the discharge of this water by
40 the defendant into this stream impair or tend to impair,

pollute, or tend to pollute the public water supply at the Intake some ten miles below this point?

MR. DUFFIELD: Objected to.

THE COURT: I will take this testimony subject to the objection.

THE WITNESS: I think the possibility is remote.

Q. Give your reasons for that opinion?

10

A. Well, in the first place, the character of the drainage from this creamery is such that the stream will probably cleanse itself before it reaches that point.

Q. What other reasons, if any, have you for it?

A. The stream is rapid flowing, the bed of the river is filled with rocks, and there is a considerable filtration of the water all that distance, and it is altogether unlikely that from this character of sewage there would be pollution that would be detrimental to health that distance away.

20

By the Court:

Q. Suppose this sewage, as you call it, contains intestinal bacilli. Would that be likely to go down and multiply through ten miles of water?

A. They have been known to travel as far as that, yes.

Q. They have been known to travel very much farther, even?

A. I think so.

By Mr. Bowen:

Q. Is it possible without a bacteriological examination, to ascertain or determine whether at the point where this so-called sewage empties into the stream, it corrupts or pollutes the water of the stream?

30

A. Well, that question is rather a hard one to answer directly. In the first place, it is a question of what you mean by impure. Anything that is added to the water, any foreign matter, impairs the purity of water, of course, but whether it renders it dangerous to life and detrimental to health is another question.

40

Q. I use the word impair, in the sense of its being detrimental to health?

A. I think in order to determine that, that an examination of that kind would be very material. It would very materially assist to determine.

Q. Could the question be determined without such a bacteriological examination?

A. I think hardly satisfactorily, no.

10 *Cross Examination, by Mr. Duffield:*

Q. I understood you to say that you had made an examination of these premises as recently as last Friday?

A. Last Tuesday—Tuesday of this week.

Q. Did you examine on that Tuesday there the condition of the cans and bottles which were washed?

A. Yes, I did.

Q. What was their condition?

A. You mean on the inside or the outside?

Q. I mean both. I mean to say, taking first the cans
20 that are brought in from the farmers. What was their condition as to cleanliness?

A. Well, I saw some cans standing on the floor. Outside they appeared to be clean.

Q. Now, what about the condition of the cans and bottles that are returned from Brooklyn. Did you examine those at all?

A. Yes, the outside of the cans are cleaned.

Q. And what was inside the cans?

A. Only the milk that adheres.

Q. You say you examined the vicinity for the purpose of determining whether there was any human or animal excrement?
30

A. Yes.

Q. I assume that if you had found excrement in the vicinity that would to some extent alter your opinion as to the character of the waste water?

A. I think perhaps it might.

Q. Your purpose in making that examination was to discover whether there was any source of pollution from human excrement?

A. Yes.

40 Q. Supposing that you had learned or had discovered

in your examination that human excrement had been deposited within a comparatively short distance of the building, would that have altered your position as to the character of the waste matter?

A. I think it would be very objectionable.

Q. And that would have increased the liability of danger from the waste, would it not?

A. Yes.

Q. Now, you have suggested that a bacteriological examination was necessary for the proper determination of impurities? 10

A. Yes.

Q. You would not consider it was necessary in case of direct contamination, that it was necessary to have bacteriological examinations?

A. I would not if it was found that the contamination was sewage containing human excreta, where there was a possibility of direct contamination from intestinal organs.

Q. Do you think there is no possibility of sewage being present in this waste? 20

A. Hardly.

Q. Why did you then describe the waste which was flowing out of this pipe as sewage?

A. I don't know as I did, did I?

Q. I think you used the word sewage?

A. I used it in the sense that it was waste from the building.

Q. As a matter of fact, in your opinion, isn't the substance which is flowing out of that pipe a substance which will of itself, you knowing the constituents of it, know where it comes from, pollute or impair the quality of water? Didn't you say that it would? 30

A. At that point, I think, yes.

Q. At the point where it goes in?

A. Yes.

By the Court:

Q. At the point where it goes into the stream?

A. Yes.

By Mr. Duffield:

Q. At the point where it goes into the stream, it is a substance that will impair the purity of the water, at that point?

A. It is likely to do it.

Q. It will tend to do it?

A. There is a possibility, yes.

By the Court:

10 Q. Would you regard it as safe to use as drinking water the water of the stream at the point where this drain enters into it?

A. No, I should not consider it safe, no.

By Mr. Duffield:

Q. Do you know at what time in the day this so-called sewage is being deposited in that stream?

A. What time of day?

Q. Yes.

20 A. Well, there are two discharges a day, both in the afternoon, or about noon-time, and later on in the afternoon. When they get through with their bottle-washing, they discharge one tub, and then they wash their cans and discharge the other tub, and then the floors are washed and that is discharged into this drain.

Q. And the water flows during the entire twenty-four hours?

A. The water flows during the entire twenty-four hours in this way: That a pipe from the mountain stream through which the water supply is provided, dis-
30 charges into the cooling vat. The cooling vat overflows and discharges through this drain-pipe into the stream. So that that is running all the time.

By the Court:

Q. Well, after they empty the tubs and the vats the entire water supply through the inch pipe is intercepted for that time, isn't it?

A. No, sir, that is full continually.

Q. But it flows into the vat, doesn't it?

40 A. Yes.

Q. And until the vat is filled there is practically no discharge through this trough?

A. No, sir, for the cooling vat is filled practically all that time. The water is constantly changing.

By Mr. Duffield:

Q. Is it not a fact that the mere washing of hands in water which runs off from a basin, where a person has washed his hands, is sewage within the general acceptation of that term? 10

A. I think so.

Q. Isn't that a substance which would of itself impair or tend to impair the quality of a potable water?

A. Anybody who came in contact with persons having contagious diseases and washed their hands in a sink, would be liable to contaminate the water.

Q. And therefore there is liability of the placing of disease germs in water used for washing the human person?

A. Yes. 20

Q. The purpose of a bacteriological test is usually to determine the presence of the colon bacillus?

A. Yes.

Q. And that bacillus is not a harmful bacillus?

A. Not necessarily.

Q. It is merely for the purpose of determining, if it is present, other harmful organisms are present?

A. When that is found there is an indication that there is sewage that is discharged from human beings.

Q. And the danger may arise? That does not demonstrate necessarily that danger has arisen, but that there is a possibility of danger? 30

A. Yes.

Q. It is very seldom that the examination is made for the purpose of determining the typhoid bacillus?

A. No, sir. If they get the coli, that is as far as they go.

Re Direct Examination, by Mr. Bowen:

Q. And these coli bacilli may be carried through dust on the road to the stream? 40

A. Well, it comes from the intestinal tract. Of course, if somebody uses the road side, it may be carried into the stream.

BENJAMIN H. DENNIS, recalled for further examination, testifies as follows:

10 *Direct Examination, by Mr. Bowen:*

Q. You are the forman in charge of this creamery?

A. Yes.

Q. And you have been foreman of that creamery for how long?

A. Eight years and nineteen days today.

Q. Well, do you know what is done with the cans by the farmers before they are brought to this dairy?

MR. DUFFIELD: I object unless the witness speaks of
20 his own personal knowledge.

MR. BOWEN: I asked of his own personal knowledge.

THE COURT: You can cross-examine, Mr. Duffield.

THE WITNESS: Well, now, I go by a farmer's place occasionally. I see his cans sitting somewheres, probably in a wagon, probably on a bench nearby the house.

Q. No, I mean after the cans are filled?

30 A. They are filled—I don't understand you?

MR. DUFFIELD: No questions.

DEFENDANT RESTS.

CASE CLOSED.

OPINION.

On bill, answer, replication and proofs taken in open court.

Mr. Edward D. Duffield, Assistant Attorney General, for complainant.

Mr. J. R. Bowen for defendant.

10

STEVENSON, V. C.

For the purpose of the appeal which has been taken in this case the reasons for the decree which I advised may be stated very briefly.

The proofs seem to be clear that the defendant was engaged in polluting the waters of the Pequannock River about ten miles above the Newark intake, and that what he was so doing is beyond all doubt within the prohibition of the act of the legislature entitled "An Act to secure the purity of public supplies of potable waters in this State" upon which statute the bill of complaint is based. All the questions of law, I think, are disposed of by the decision of this Court and the Court of Errors and Appeals in the case of State vs. Diamond Mills Paper Co., 63 N. J. Eq. 111 (1902), affirmed 64 N. J. Eq. 793. 20

Within the last two or three days my attention has been called to a decision rendered by Vice Chancellor Leaming to the effect that the statute of 1899 above cited, was repealed by Chapter 72 of the laws of 1900 (Laws of 1900, p. 102) and that the equitable action provided by the statute of 1899 has been substituted by a similar action to be brought by the State Sewerage Commission. This point was not in any way suggested at any time while this case was pending before me and was not considered. 30

DECREE.

This cause coming on to be heard in the presence of Edward D. Duffield, Assistant Attorney General of the State of New Jersey, of counsel with the complainant, 40

and James R. Bowen, of counsel with the defendant, and the pleadings and proofs having been read, and the arguments of the respective counsel having been heard and considered, and the court having duly considered the said pleadings, proofs and arguments, and it appearing to the court that the complainant is entitled to the relief sought and prayed for in its bill of
 10 complaint,

It is, on this fourteenth day of May, in the year of our Lord one thousand nine hundred and six, by the Chancellor of the State of New Jersey, ordered, adjudged and decreed that a writ of injunction do issue restraining the said George Ihnken from permitting the waste water from the washing of cans and bottles and the cleansing of floors in his creamery located at Stockholm, Sussex County, New Jersey, to be conveyed from said creamery to a tributary of the Pequannock River, and from placing in or discharging into the said Pe-
 20 quannock River, or into any tributary or branch thereof, any sewage, drainage, domestic or factory refuse, excremental or other polluting matter of any kind whatsoever, which, either by itself or in connection with other matter, will corrupt or impair, or tend to corrupt or impair, the quality of the water of said Pequannock River, or of any tributary or branch thereof, and from further violating the provisions of the act of the Legislature of the State of New Jersey, entitled "An Act to secure the purity of the public supplies of potable waters in this State," approved March seventeenth, one
 30 thousand eight hundred and ninety-nine.

Respectfully advised,

EUGENE STEVENSON,
 V. C.

W. J. MAGIE,
 C.

NOTICE OF APPEAL.

40 The defendant hereby appeals from the final decree made in this Court in the above stated cause, and from

the whole and every part thereof to the Court of Errors and Appeals in the last resort in all causes.

Dated May 19, 1906.

J. R. BOWEN,
Solicitor of Defendant.

WILLIAM C. CUDLIPP,
of Counsel. 10

I conceive there is good cause for appeal in the above stated cause.

WILLIAM C. CUDLIPP,
of Counsel with Defendant.

PETITION OF APPEAL.

To the Honorable the Court of Errors and Appeals in the last resort in all causes:

The humble petition of George Ihnkèn, appellant in the above stated cause, respectfully shows that your petitioner finds himself aggrieved by a final decree made in the Court of Chancery by his Honor, William J. Magie, Chancellor of the State of New Jersey, bearing date the fourteenth day of May in the year one thousand nine hundred and six, wherein the State of New Jersey, at and by the relation of the Board of Health of the State of New Jersey, was complainant and your petitioner was defendant, in this respect, to wit, that the said decree adjudges that a writ of injunction do issue restraining your petitioner from permitting the waste water from the washing of cans and bottles and the cleansing of the floors in the creamery of your petitioner, located at Stockholm, Sussex County, New Jersey, to be conveyed from said creamery to a tributary of the Pequannock River, and from placing in or discharging into said Pequannock River, or into any tributary or branch thereof, any sewage, drainage, domestic or factory refuse, excremental or other polluting matter of any kind whatsoever, which, either by itself or in connection with other matter, will corrupt or impair, or tend to corrupt or impair, the quality of the water of said Pequannock River, or any tributary or

branch thereof, and from further violating the provisions of the act of the Legislature of the State of New Jersey, entitled "An Act to secure the purity of the public supplies of potable waters in this State" approved March 17, one thousand eight hundred and ninety-nine. And your petitioner humbly appeals from those parts of the decree of the Chancellor, which decrees as aforesaid upon the ground that the same is erroneous for that the said complainant is not entitled to any writ of injunction restraining your petitioner from permitting the waste water from the washing of cans and bottles and the cleansing of floors in the creamery of your petitioner, located at Stockholm, Sussex County, New Jersey, to be conveyed from said creamery to a tributary of the Pequannock River, and that said complainant is not entitled to any writ of injunction restraining your petitioner from placing in or discharging into said Pequannock River or into any tributary or branch thereof, any sewage, drainage, domestic or factory refuse, excremental or other polluting matter of any kind whatsoever, which, either by itself or in connection with other matter will corrupt or impair or tend to corrupt or impair the quality of the water of said Pequannock River or of any tributary or branch thereof, and that said complainant is not entitled to any writ of injunction restraining your petitioner from violating the provisions of the act of the Legislature of the State of New Jersey, entitled "An Act to secure the purity of the public supplies of potable waters in this State," approved March seventeenth, one thousand eight hundred and ninety-nine. Your petitioner therefore prays that the said decree of the said Chancellor may be, in the particulars aforesaid, reversed, set aside and for nothing holden, and that your petitioner may have such relief in the premises as to this Honorable Court shall seem meet.

Dated June 19, 1906.

J. R. BOWEN,
Solicitor for Appellant.
WILLIAM C. CUDLIPP,
of Counsel.

ANSWER TO PETITION OF APPEAL.

The answer of the above-named respondent to the petition of appeal of the above-named appellant.

The respondent, not acknowledging all or any of the matters in the said petition of appeal contained to be true, for answer thereto, nevertheless, says and admits that a decree was, on the fourteenth day of May, nineteen hundred and six, made and entered in the Court of Chancery, in the cause for that purpose mentioned in the said petition, as is therein stated: but as to the substance and form thereof, the respondent prays to refer thereto, when the same shall be produced. And this respondent is advised and believes that the said decree is agreeable to equity and prays that the same may be affirmed, with costs to be adjudged to the respondent. 10

ROBERT H. McCARTER,

Solicitor for and of counsel with respondent. 20

EXHIBIT D-1.

Whereas, The Newark Aqueduct Board and The Mayor and Common Council of the City of Newark, the party of the third part to this contract, desire to procure for the present and future needs of the city of Newark, a supply of pure and wholesome water for domestic purposes, the extinguishment of fires and other lawful uses, and with this end in view have entered into negotiations with the Lehigh Valley Railroad Company, the party of the first part named herein, for the purpose of procuring such supply: 30

And Whereas, the said party of the first part, The Lehigh Valley Railroad Company, owns, or claims to own and control, water and water rights in the Pequannock, Wynockie and Ramapo water sheds, situate in the northern part of this State, from which such a supply as the city of Newark needs and desires to procure may be obtained, and has offered to furnish the said city, the party of the third part, with a certain quantity of water of the character above described, 40

from the sources above named, upon certain terms and conditions, and has offered for this purpose further to construct, or have constructed, such works as may be necessary to deliver the water thus to be furnished to said city in the manner agreed, which water, works and water rights it is understood, the party of the third part may, upon certain terms and conditions purchase, and thus become the absolute and sole owner thereof:

Now, for the purpose of defining clearly and particularly the rights of all parties, and of complying with the requirements of the statutes in such cases made and provided this writing made and entered into this twenty-fourth day of September, in the year of our Lord one thousand eight hundred and eighty nine, between the Lehigh Valley Railroad Company, a corporation of the State of Pennsylvania, party of the first part, The East Jersey Water Company, a corporation organized under the general laws of the State of New Jersey, party of the second part, and the Newark Aqueduct Board and The Mayor and Common Council of the City of Newark, party of the third part: Witnesseth:

First,—That the said party of the first part has and by these presents does hereby grant, sell, assign, transfer, convey and set over unto the East Jersey Water Company, the party of the second part, its successors and assigns, all or so much of the waters and water rights owned or controlled by the party of the first part, derived and derivable from the water sheds above named, to-wit: The Pequannock water-shed, the Wynnockie water-shed and the Ramapo water-shed, situate in the northern part of the State of New Jersey, as shall or may become necessary to enable the said East Jersey Water Company, the party of the second part, to carry into effect the said offers of the said party of the first part, and to fully keep, fulfill and perform all and singular the covenants and agreements herein made by the said party of the second part on its part to be kept, fulfilled and performed. And the party of the first part hereby covenants and agrees to and with the party of the third part that the party of the second part has a paid up cash capital of not less than three mil-

lion dollars for the uses and purposes of this contract, and by the grant and conveyance herein will be invested with the title to the said water and water rights as fully and completely as the same are now held and enjoyed by the party of the first part. And that in addition to the said paid-up cash capital of the party of the second part, the party of the first part will, from time to time as the same may become necessary, furnish and 10 provide such sum or sums of money to and for the use of the party of the second part as may become necessary, and as will enable the said party of the second part to fully keep and perform all and singular the covenants and agreements herein made on the part of the party of the second part to be kept and performed; and also that the said party of the second will faithfully apply all sums of money so furnished solely for the purchase of property, water and water rights, and in the construction of works in execution, and performance of its covenants and agreements herein made as herein set 20 forth.

Second,—For the consideration hereinbefore and hereinafter named, and for the purpose of providing ways and means whereby the said offers and proposals of the party of the first part to the party of the third part may be performed and carried into full effect, the party of the second part, the East Jersey Water Company, hereby covenants and agrees to and with the party of the third part to proceed forthwith to build and construct from some point or points in the water-sheds above named, hereafter to be located and fixed by the 30 party of the second part, as the necessities of this contract shall demand and require, to the points hereafter named in the city of Newark, in the county of Essex, a pipe line or pipe lines, to be made and constructed of steel, wrought iron or cast iron, in a thorough and workmanlike manner, substantially and thoroughly built, and constructed of sufficient strength for the purposes required, properly tested and conforming in all respects with the requirements of this agreement; which conduit or conduits shall be capable of conveying, and through which there may be conveyed and delivered to 40 the party of the third part, a daily supply of water

- of not less than fifty million gallons per day during each and every day of the year; providing for such conduit or conduits the necessary right of way, and all necessary adjuncts and appliances, in order to make a first class work for the purposes for which the same are required; and through the conduit or conduits so to be constructed to supply to the party of the third
- 10 part from the sources above named, or one of them, so much pure and wholesome water for domestic purposes, the extinguishment of fires, and other lawful use, as they, the party of the third part, may need and require, up to the maximum quantity agreed to be delivered as aforesaid, that is to say a daily supply of not less than fifty million gallons on each day forever. The party of the second part further covenants that so much of the water agreed to be furnished and delivered as aforesaid as shall be necessary to supply all that part or portion of the city of Newark, which is now or here-
- 20 after may be supplied with water from what is known as the receiving reservoir, located near the town of Belleville, in the said county of Essex, shall be delivered at the said reservoir through the said conduit or conduits so to be constructed as aforesaid by gravity, at a height and under a pressure such as is hereinafter indicated, so that it may be from thence distributed through the mains and conduits of the said city already in use and hereafter to be constructed, by gravity alone; and also through the said conduit or conduits to deliver so much of the said water as may be necessary to supply
- 30 what is known as the high-service district in said city, comprising all that portion thereof which is not now and cannot now be supplied with water by gravity from the said receiving reservoir at Belleville, at what is known as the high-service reservoir, located at South Orange Avenue in said city, at an elevation and under a pressure hereinafter indicated, so that it may be from thence distributed by gravity alone throughout the entire limits of the high service district of the said city, including in such district those portions of territory
- 40 which may be hereafter supplied with water from that point, under the head and pressure so indicated.

Third,—The party of the second part further cove-

nants and agrees to and with the party of the third part that the said works shall be so constructed that the maximum quantity delivered at the high service reservoir shall furnish a daily supply of not less than twenty-five million gallons for each and every day; for the transmission of water from the point of intake, (and in case only one conduit shall be constructed by said party of the second part), a right of way shall be granted them for the second conduit thence to be constructed by the city of Newark, whenever it shall desire. 10

Fourth—The party of the second part further covenants and agrees to and with the party of the third part to erect, construct and build in a thorough and workmanlike manner all such dams, reservoirs and works as may be necessary to hold, impound, maintain and deliver the water so to be delivered to the party of the third part, making all necessary erections and construction therefor, so that water of the quality aforesaid and of the quantity aforesaid may at all times be delivered through the conduit or conduits so to be constructed as aforesaid, and that so much water shall be held, impounded, maintained and made deliverable at and above the point or points of intake, as they may be hereafter fixed and located, as shall be necessary to furnish through the said conduit or conduits to the said city at the points of delivery therein during each and every day of the year, for all time, the maximum quantity of water above mentioned, and that all the said reservoirs shall be constructed at points in the valleys of the Pequannock or of the Wynockie or of the Ramapo, at which the water to be retained in them and to be delivered therefrom has not been made unwholesome, or made impure by any matter or substance coming or arising from preventable sources of pollution; and that such dams and reservoirs shall be constructed and built in accordance with the specifications and requirements of this contract. 20 30

SPECIFICATIONS.

Conduits.

Right of way.—The right of way for the conduit or conduits shall extend from the reservoirs at the points 40

of intake to the points of delivery, and shall be sufficient in extent, and in all respects, to provide for all the conditions and requirements of this contract, whether one line of pipe be laid or more, and such as will enable the party of the third part, in case of purchase, fully to protect the pipe or pipes laid therein, and maintain and repair the same.

- 10 Capacity.—The head to be used for computing the capacity of the conduits shall be the difference between the low water level, or the bottom elevation of the available capacity of the reservoir or reservoirs at the points of intake, and the height or elevation of delivery at the points of delivery designated in this paragraph. For the supply of the high service the water shall be delivered at the high service reservoir, located on South Orange Avenue, in the City of Newark, at a height of delivery of three hundred feet above high water mark in Newark Bay (Newark city datum), or seventy-seven
20 feet above the high water level of the said reservoir. The supply for the low service to be delivered at the receiving reservoir at Belleville, shall be delivered at a height of one hundred and sixty-five feet above high water mark in Newark bay (Newark city datum), which is the high water level of the said receiving reservoir.

- Materials and description of conduits.—The said conduits shall be made or constructed of either steel or wrought iron or cast iron pipe as the Newark Aqueduct Board may elect. The steel or wrought iron to be used
30 shall be of the best quality, for the purpose, but not less than fifty-five thousand pounds tensile strength for steel, or forty-five thousand pounds for wrought iron. The pipe shall be properly tested and shall have a thickness of shell sufficient to sustain the pressure to which they will be subjected, but shall be in no case less than one-quarter inch in thickness. All punching, drilling, countersinking, cutting, caulking, riveting, etc., shall be done in the best and most workmanlike manner. The pipes and materials shall be properly tested, and the pipes coated with asphalt in the most
40 thorough and approved manner. If cast iron pipes are used they shall be of standard weight according to

pressure, tested at the foundry in the usual manner, and coated carefully with the best quality of coal tar pitch, specially prepared for that purpose; all joints to be caulked with the best quality of pure soft lead.

The pipe lines or conduits are to be connected at proper points and in a proper manner, and provided with all the necessary special pieces or castings, expansion joints, man-holes, cheek valves, stop valves, air valves, blow-offs provided with waste pipes, and all the other appliances required to make them suitable in every respect for the purpose intended. 10

Laying of Conduits.—The pipes shall be laid in the best and most thorough manner, on true grade lines on a bed or foundation properly prepared, and where necessary to procure such foundation, on piling. If any bridging shall become necessary to carry the pipes, the bridges are to be constructed with wrought iron girders, with masonry, abutments and piers; if tunneling 20 is done, the tunnels shall be constructed and completed in a workmanlike manner, and supplied with all necessary appliances. Wherever the pipes are laid in a trench or on the surface of the ground, they shall be covered with earth sufficient fully to protect the same and prevent freezing; if this covering forms an embankment, the top and slopes of the same shall be properly protected, by sodding or otherwise; and wherever embankments are made, measures shall be taken and necessary constructions made to secure the proper drainage of the adjoining land. If the pipes or conduits 30 are at any point or points carried over a bridge, or otherwise exposed, they shall be protected by proper covering from the influence or change of the atmosphere.

Delivery.—The party of the second part is to do all the work at the point or points of delivery, including the erection of necessary stand-pipes, pressure regulators, gate-houses, gate-chambers with stop gates and valves, and whatever else may be needed to ensure a proper and efficient delivery of the water into the designated reservoirs. During the progress of this work, 40 every reasonable precaution shall be taken to interfere

as little as possible with the present supply system of the city of Newark.

Storage Reservoirs.

Capacity.—The storage reservoirs shall be of the necessary elevation and of such capacity as to insure the maximum daily supply for each and every day contracted to be delivered. There shall be a proper relation between drainage areas, available capacity of reservoirs and the maximum daily supply. The available capacity is to be that part of the contents of the storage reservoirs lying between the high-water and low-water levels above the effluent pipes, all of which can be drawn off by the pipes or conduits for the regular supply of the city of Newark.

Clearing.—The reservoir sites must be thoroughly cleared. All trees, dead and fallen timber, logs, saplings, scrub, underbrush, vegetation, stumps, posts and other material must be thoroughly grubbed and removed, and the whole of the material stacked and burnt, or otherwise disposed of, and the total area must be raked clear from all refuse, dead leaves, vegetation and other rubbish, and thoroughly cleaned and prepared in every way, and all slopes properly protected, so as to be fit for the purpose intended before water is let into the reservoirs.

No artificial lakes or ponds, or lakes or ponds where the water surface has been extended by the flooding of adjoining or adjacent lands, or sites of artificial lakes or ponds, or flooded lands not previously cleared and prepared as above described, shall be placed in service as storage reservoirs, until thoroughly prepared according to these specifications, to the end that the water flowing therefrom shall at all times be pure and wholesome, and free from harmful or deleterious matter or substance.

Space.—There shall be a cleared space around the water surface of the reservoirs or high-water contour of not less than sixty feet, and additional space where it may be needed, which is to be included in the conveyance of the reservoir sites to the city of Newark.

Shallow Flowage.—With the exception of the nec-

essary slopes and points where the formation makes it impracticable, the minimum depth of the reservoirs shall not be less than eight feet below the full water line.

Reservoir Dams.—The reservoir dams may be either of masonry, or earth embankments, as may be best suited to the different localities. They shall be of sufficient height and strength, of the best adapted shape, and 10 built in the most substantial and thorough manner, on properly prepared foundations, with the necessary effluent pipes, gate-houses, with gate-chambers and vaults, gates, valves, screens and other appliances and appurtenances proper for the purpose intended, with the necessary slope walls, by-wash, waste-weirs, blow-offs, drains and waste pipes, and they shall be provided with such sufficient space or area of land along the foot and side as may be necessary to protect the same, and shall be fenced, where required. In case there shall not exist a public road or roads leading to and permit- 20 ting access to the reservoirs where located, necessary lands and right of way shall be acquired and furnished to give such access. All parts of the works exposed to the eye shall be of neat and workmanlike appearance, without unnecessary ornamentation, and shall be of a thorough, proper and workmanlike construction, sound, solid and sufficient. The specifications herein given being general, any workmanship or material not mentioned or described, necessary to make the works to be constructed complete, and in all respects of the best 30 quality of their several kinds, shall be performed and furnished by the party of the second part as fully and thoroughly as if the full details and specifications therefor had been given herein.

Fifth.—The party of the second part further covenants and agrees to and with the party of the third part, that all the works necessary to be constructed and hereby agreed to be built and constructed (which shall be capable of delivering the maximum quantity of water hereby agreed to be furnished, of which not less than twenty-five million gallons per day may be delivered at the high service), shall be completed, finished, 40 and in every respect perfected according to the terms

- and conditions of this contract on or before the first day of May, eighteen hundred and ninety-two, on and after which date all the water agreed to be furnished shall be ready for delivery by gravity both at high and low service, as herein provided; if, however, in the execution of this contract, the party of the second part shall be impeded or delayed by strikes, or by injunctions or other judicial process, or by the act of God, or the public enemy, the period so allowed for final completion shall be extended for a time equal to the period during which such delay or interruption shall continue and in case such delay or interruption shall be threatened or occur, the party of the second part covenants and agrees to use all proper means forthwith to prevent or terminate the same, to the end that the work may proceed and to cause said works to be constructed and completed and ready for the delivery of water according to the terms of this contract at the earliest date practicable;
- 20 and in case the party of the second part shall make default in the delivery of the said water within the time herein provided, it shall forfeit and pay to the party of the third part as fixed and liquidated damages for each day's delay thereafter until the delivery is so made the sum of one hundred dollars.

- Sixth.—The party of the third part hereby covenants and agrees to and with the party of the second part, that whenever the party of the second part shall be ready to deliver the water to the party of the third part under the terms of this contract, and shall so notify
- 30 the said party of the third part by notice in writing addressed to the Aqueduct Board of the City of Newark, and delivered to the President of the said Board or to the Mayor of said City, or in their absence, to the Secretary of said Board or to the Clerk of said City, that the party of the third part will then and thereafter take, accept, receive and pay for said water as follows—that is to say, the period during which the party of the third part, under the terms of this contract, shall accept, receive and pay for the water by the million gallons shall be for a continuous period of twenty-five
- 40 years, commencing at the date at which delivery is first made; the party of the third part will take, receive

and pay for at least fourteen million gallons per day from the date at which the party of the second part is ready to deliver water, and shall give the notice above specified, and so much in excess thereof as may be necessary for the use of the party of the third part and the party of the third part shall have the right to demand and require, and the party of the second part agrees to supply at the rates named in this clause, so much water as may be needed for the use of the said city of Newark during the whole of the said term up to the maximum quantity herein agreed to be furnished; and the party of the third part further covenants and agrees, while it shall continue to take water by the million gallons under the terms of this contract, it will pay the party of the second part therefor at the rate of thirty-nine dollars for each million gallons taken, up to a consumption of twenty million gallons per day, to a consumption of twenty-five million gallons per day, and it is covenanted and agreed between the said parties that when the consumption by the party of the third part shall exceed twenty million gallons per day, that then, for each million gallons thereafter supplied daily in excess of twenty million gallons daily, the price shall be reduced on all delivered at the rate of fifty cents per million gallons until the rate to be paid shall reach the sum of thirty-six dollars per million gallons, after which it shall remain at that price during the whole period during which water is furnished by the party of the second part to the party of the third part by the million gallons under the terms of this contract.

Seventh.—It is further covenanted and agreed by and between the party of the second part and the party of the third part, that the quantity of water supplied to the party of the third part by the party of the second part, under the terms of this contract by the million gallons, shall be properly and accurately measured, each and every day, by the party of the second part, and that the party of the third part, by its properly appointed officer or officers, shall have the right at any time to be present at and examine and test the measurement of water so delivered, and that the party of the second part shall have the right of access at all times to any

property of the party of the third part for the purpose of testing the quantity of water supplied to and taken by the said city; and for the purpose of measuring the same, may erect and use such appliances as may be necessary for this purpose, and as may be required from time to time; and it is further covenanted and agreed by and between the said parties that should any dispute
 10 arise between them in relation to the accuracy of any of the measurements made by the party of the second part of the water so supplied to the party of the third part, and such dispute cannot be settled between the said parties, that the same shall be referred to and determined by arbitrators, who shall be disinterested persons selected by the parties, one by each; and if such arbitrators cannot agree, they may call to their assistance a third arbitrator, or umpire, for this purpose; and the decision of any two of such arbitrators shall be binding and conclusive upon the said parties.

20 Eighth.—It is further covenanted and agreed by and between the said parties of the second part and the third part, that the payment for water by the million gallons delivered under the terms of this contract shall be made by the party of the third part to the party of the second part, quarterly—that is to say, on the first days of April, July, October and January in each year, upon proper certificates of the quantity delivered, to be made and given by the party of the second part to the party of the third part. In case, however, there is
 30 a dispute in relation to the quantity delivered, payment may be made in relation to the disputed quantity, after the dispute has been determined as herein provided; for so much, however, of the quantity delivered as is not disputed, payment shall be made at the time such payment is due as herein provided.

Ninth.—It is hereby further covenanted and agreed by and between all the parties of this contract that the party of the third part, their respective successors and assigns, shall have the right at
 40 any time after this contract shall have been executed, within one year after the date of the final completion of all the works herein agreed to

be built and constructed, to terminate that part of this contract which provides for the purchase of water by the party of the third part from the party of the second part by the million gallons, by exercising the option hereinafter given, and to become the owner absolutely in its own right of the water, water rights, dams, reservoirs, and works constructed by the party of the second part, for the purposes of this contract, with all their appurtenances, upon the following terms and conditions: The option hereby given to purchase shall be exercised by the party of the third part within the time above limited, and such option shall be manifested by a resolution passed by the Newark Aqueduct Board, and approved by the Common Council of the city of Newark, a certified copy of which shall be delivered either to the President, Secretary, Treasurer, or one of the Directors of the East Jersey Water Company, the party of the second part, its successors or assigns. Upon the exercise of such option in the manner aforesaid, and the delivery to and the acceptance of said works, water and water rights, by the party of the third part under such option as herein provided, the party of the third part shall pay to the party of the second part, its successors or assigns, in current money of the United States, or in the legally authorized and issued bonds of the city of Newark, the sum of four millions of dollars, bearing interest as hereinafter specified; upon the making of such payment, the party of the second part shall immediately convey to the Mayor and Common Council of the city of Newark, freed and cleared of the claims and demands of every person and persons whatsoever, the dams, reservoirs, reservoir sites, conduit or conduits, and all the works of every nature and kind built and constructed by the party of the second part, as required by the terms of this contract, for the purpose of furnishing the supply of water herein contracted to be furnished by the party of the second part to the party of the third part, with all their appurtenances, together with water and water rights aforesaid, sufficient to supply fifty million gallons of said water daily forever, by good and sufficient conveyances in the law, for investing the party of the third part with the title thereto abso-

lutely, such conveyance to contain full covenants of ownership, right to convey, and warranty, and against all incumbrances, and also the rights of way over which the pipe line or pipe lines are laid and constructed. The party of the second part further covenants and agrees that such works so to be constructed and so to be conveyed and delivered, shall be capable of delivering to the city
 10 of Newark, and shall deliver to the city of Newark, water of the quality aforesaid, of the quantity agreed to be furnished, and in the manner agreed to be furnished, and shall be constructed and made in a thorough, substantial and workmanlike manner, and shall be in all respects in complete order; and such conveyance shall contain a covenant that said works then conform or shall be made to conform to the requirements of this contract. Any suit to enforce performance or for an alleged breach of this covenant shall however be brought within eleven years from the date hereof and
 20 not after. The conveyance shall also include the right to divert through the conduit or conduits so to be constructed and the works so to be built, and to use for the supply of the said city water up to the maximum quantity agreed to be furnished. It is understood and agreed, however, between the said parties, that the conveyance to be made as aforesaid upon the exercise of the said option and payment of the said sum of money shall be subject to the license given by the terms of this contract to the party of the second part, its successors and assigns, to divert and use during a certain term a certain
 30 portion of the water as hereinafter provided; and the party of the second part may have the right to build or construct other pipe lines or conduits crossing the pipe lines or conduits so to be constructed under the terms of this contract, such crossings, however, to be made in such manner as in no way to interfere with or injure the works to be constructed by the party of the second part for the party of the third part under the terms of this contract.

Tenth.—It is further covenanted and agreed by and
 40 between the parties to this contract that the party of the second part in constructing the works required, and necessary to be constructed and built under the terms

of this contract, and also in providing for the use of so much of the water as it is herein permitted to divert and use, shall have the right to lay pipes through the streets, avenues and lands of the city of Newark, public parks excepted, provided, however, that such construction through such streets, avenues and lands as to the designation of the same and otherwise, shall be made under the direction of the street commissioner and city surveyor of the city of Newark, and shall be as far as possible through streets unpaved, and shall not interfere with or injure other constructions or works made therein, and that the party of the second part shall at its own cost and expense immediately fill up all excavations and relay any pavement or sidewalk removed, and leave such streets, avenues and lands in as good condition after such pipes are laid therein as they were before such work was commenced.

Eleventh.—It is further covenanted and agreed that upon the exercise of the option to purchase herein provided for, and upon the conveyance to the party of the third part of the works, water and water rights to be conveyed upon the exercise of said option, the party of the third part will be and become indebted to the party of the second part, its successors and assigns, in the further sum of two million dollars; it is agreed, however, between the said parties that the payment of the last mentioned sum of two millions of dollars shall be deferred and shall not be made by the party of the third part to the party of the second part until the expiration of eleven years from the date of this contract, at which time such payment shall be made. Such deferred payment may be made either in cash or in bonds of the city of Newark of the character hereinafter described, at the option of the party of the third part. But for the evidence of said indebtedness, and for the better securing the payment thereof at the time hereinabove mentioned, the party of the third part hereby covenants and agrees with the party of the second part, that it will at the time of the delivery of the conveyance mentioned in the ninth section hereof, in addition to the payment of four million dollars provided for in said section, also deposit with some person or corporation to be agreed up-

- on, bonds of the said city of Newark for the said sum of two million dollars, of the character described in the thirteenth section hereof, except that interest on said bonds shall not accrue or commence to run until the expiration of said term of eleven years, to be held in escrow, and if before or at that time the said party of the third part shall elect to make said payment in bonds,
- 10 then the said person or corporation holding the same shall deliver said bonds as and for such payment; but if said party of the third part shall elect to make such payment in cash, then on the receipt of said sum of two million dollars, lawful money of the United States, by said party of the second part, and proof thereof to said person or corporation made, the said person or corporation aforesaid will return said bonds to the party of the third part in the same condition as to coupons as when they were delivered. And in consideration of such deferred payment and of the maintenance of the
- 20 works by the party of the second part, until said last mentioned date as hereinafter provided and agreed, it is agreed between the party of the second part and the party of the third part that the party of the second part shall, during all the period that shall elapse between the date of the first payment and the date of the final payment, have the right to divert, use, and for its own benefit dispose of so much of the water conducted through the conduit or conduits and furnished by the works specially built and designed for the city of Newark, as the said city may not during that time need
- 30 for its own use, for domestic purposes, for extinguishment of fires and its other lawful uses, up to twenty-seven million five hundred thousand gallons daily, and shall, in any event, have the right so to divert and use during all that period all the water so conducted in excess of twenty-seven million five hundred thousand gallons daily, with the right to connect with the pipe lines and works so constructed, and take water therefrom as herein provided, as such point or points as the party of the second part may desire; provided that if the party of the second
- 40 part shall desire to make any connections with such pipe line within the city of Newark, they shall be made

at such point or points as the Newark Aqueduct Board shall designate and not otherwise; provided, further, that the party of the third part shall, at all times during said period have supplied to it for its own use, as hereinbefore stated, both at high service and low service, so much as it may need for its own use up to a supply in all of twenty-seven million five hundred thousand gallons for each and every day. And it is further covenanted and agreed by and between the said parties 10 that during the period above specified within which the party of the second part may divert and use for its own benefit the water so to be conducted through the works specially designed and constructed for the supply of the city of Newark, as herein provided, that it shall at its own cost and expense, keep and maintain all the dams, reservoirs, conduits and works specially designed for the city of Newark, and constructed under the terms of this contract, in good order and repair, and shall have such control over the same as may be 20 necessary for the purposes of this contract, and shall deliver the same at the end of the said period to the party of the third part in good order and repair upon the payment of the last mentioned sum of two millions of dollars, and thereupon all the right and interest of the party of the second part of, in and to the same and every part thereof, and all control over the same shall cease and determine, and the same shall thereafter be kept and maintained by the party of the third part, nor shall said party of the second part thereafter be bound to preserve the purity of the water. Provided, however, 30 That if said party of the second part shall under the terms of this contract lay any pipe or pipes in the streets, avenues or lands of the said city for the purpose of diverting water, during the period allowed, the same shall at the end of such period become and be the property of the said city.

Twelfth.—It is nevertheless agreed on the part of the said party of the second part in furtherance of the contracts hereinbefore made, that the said pipes, conduits, reservoirs, dams, and other works, and each of them, shall be properly constructed, and of such 40 strength as shall ensure safety to all property in the

- city of Newark, through, under or near to which the same shall be located; and the said party of the second part hereby agrees to indemnify and save harmless the said city and all individuals owning property therein from loss or damage thereto, and all persons injured while therein by reason of any outbreak of said pipes, conduits, reservoirs, dams or other works, resulting
- 10 from negligence or breach of contract by the party of the second part either in construction or maintenance, not occasioned by the act of God or of the public enemies or through the contributory negligence of parties aggrieved, the intent hereof being, and the party of the second part hereby declares that they will be responsible for all loss or damage arising from the fault of their erections, either in material or construction or in the maintenance thereof, to the same extent, and in the same manner as they would or might be in law had they acquired their right of way otherwise than by
- 20 the permission of said city; provided, however, That such liability shall not continue after the expiration of eleven years from the date hereof when the injury complained of shall arise from want of proper care or defect in maintenance.

- Thirteenth.—The party of the third part further covenants and agrees to and with the party of the second part that in case it shall pay the purchase money for said works, water and water rights as herein provided under the exercise of the option herein given, by the bonds of the city of Newark, that such bonds shall
- 30 be legally authorized and issued and shall be binding and valid obligations of the said city; that such bonds shall be payable not more than thirty nor less than twenty years from the date of issue, and shall bear interest payable semi-annually, at four per cent. per annum.

- Fourteenth.—It is further stipulated and agreed that in case it should be found that any powers or rights held or possessed or that may hereafter be acquired by the party of the third part, whether in respect to the prevention of the pollution of any waters or the prevention of injury to any portion of the works constructed
- 40 for the supply of water, or the punishment for such in-

jury or otherwise, or for the condemnation of lands, waters or rights, may be advantageously used or exercised for the purposes of this contract, the party of the third part hereby agrees so far as it has or may acquire the power so to do, to put such powers and rights in force or to permit the party of the second part, its successors or assigns, so to do in the name of the party of the third part; provided, however, That in all instances in which such use shall be made at the request of or for the benefit of the party of the second part, its successors or assigns, the cost and expense thereof shall be borne and defrayed by the latter and the party of the third part shall be properly and fully indemnified against loss or damage by reason thereof; and the party of the third part further agrees to co-operate with and aid the parties of the first and second part, or either of them, their successors and assigns, in any proper application that may hereafter be made to the Legislature of the State of New Jersey in respect of any matter or matters arising out of or connected with this contract, and necessary or appropriate for the proper carrying out and fulfillment of the same.

Fifteenth.—It is further covenanted and agreed by and between the parties to this contract that the party of the third part in the use of the water to be delivered or purchased under this contract may supply not only the inhabitants within the present or any future corporate limits of the city of Newark, but also the inhabitants of the townships of Belleville, South Orange, East Orange and Clinton; but will not supply public or private corporations or persons for use outside of the territory aforesaid. And it is also understood and agreed that from and after the completion of the works hereby contracted for and while the city of Newark shall be supplied thereby, neither the party of the first part nor of the second part, nor the Morris Canal and Banking Company, nor the successors or assigns of said corporation, or either of them, shall or will furnish or supply any water, or sell or assign any water rights to any person or corporation, for use within any part of the territory aforesaid.

Sixteenth.—It is understood and agreed by and be-

tween the parties to this contract, that the party of the third part by its officers specially appointed for this purpose, may at all times during the execution and performance of the work agreed to be performed by the party of the second part, have the right to inspect the character of the work so performed and the materials used, and also to inspect and test the quality and quantity of the water furnished, and that the party of the second part will afford such officers so appointed every reasonable facility in making such inspection. Copies of such plans and drawings of the different parts of the work as shall be prepared and used by the party of the second part shall be filed in the office of the Newark Aqueduct Board, from time to time as the work progresses.

Seventeenth.—It is hereby declared to be the understanding of all the parties to this contract that the party of the third part after the exercise of the option herein given, as provided for in the ninth section, whether such option is exercised and manifested before or after the completion of the works contracted for, is not and shall not be under any obligation to take, receive or pay for water by the million gallons, but that all parts of this contract which relate to the purchase and payment for water by the million gallons, upon the exercise of such option is thereby at once terminated as hereinbefore expressed, and that thereafter this contract shall be construed and taken to be a contract only for the purchase of water, water works and water rights. And it is further declared to be the understanding of all the parties, that by the terms of this contract, the exercise of such option after the completion of the works contracted for, is not and shall not be deemed or taken to be an acceptance on the part of the party of the third part of the works so constructed, or to be constructed, and that the party of the third part is not, and shall not be bound to accept or pay for the same unless, and until the same are in all respects constructed and completed substantially according to the terms, conditions and specifications of this contract. And it is further covenanted and agreed, and admitted by all the parties to this contract that in case it becomes necessary or

desirable, any party hereto in addition to any and all other legal remedies, both as to said contract and said conveyance, when made, may invoke the aid and authority of the Court of Equity to enforce a specific performance of the covenants and agreements therein or in either of them contained.

Eighteenth.—In case the entire water supply contracted for herein both for the high and the low service shall be taken from the Pequannock water-shed alone, then and in that case it is understood and agreed by all the parties to this contract that if the party of the third part shall exercise the option to purchase provided for in the ninth section hereof, that neither the party of the first part, the party of the second part, nor the Morris Canal and Banking Company will, after the expiration of the period of eleven years named in section eleven hereof, divert or take any water from the said watershed above the point of intake established for the said city of Newark, for the use of any other municipality or city, nor authorize any other person or persons or corporations so to do.

In Witness Whereof, the parties aforesaid have here-to respectively set their corporate seals and caused the same to be attested as follows: the Lehigh Valley Railroad Company by the signature of their President and Secretary, the East Jersey Water Company by the signature of the President and Secretary thereof, the Mayor and Common Council of the City of Newark by the signature of Joseph E. Haynes, Mayor, and Samuel H. Pemberton, City Clerk, of said city, and the Newark Aqueduct Board by the signature of Joseph E. Haynes, President of said Board, and William E. Greathead, the Secretary thereof, at Newark, New Jersey, this twenty-fourth day of September, A. D. eighteen hundred and eighty-nine. Executed in duplicate.

(Seal of The Lehigh Valley Railroad Company).

LEHIGH VALLEY R. R. CO.,
by
E. P. WILBUR, President.

Attest:

JNO. R. FANSHAW, Sec'y.

(Seal of The East THE EAST JERSEY WATER CO.,
 Jersey Water Com- by
 pany, New Jersey, E. P. WILBUR, President.
 incorporated 1889). Attest:
 D. G. BAIRD, Sec'y.

10 (Seal of The THE NEWARK AQUEDUCT BOARD,
 Newark Aqueduct by
 Board. Incorporated JOSEPH E. HAYNES
 1860). Attest: President.
 WILLIAM E. GREAT HEAD, Secretary.

(Newark City Seal. THE MAYOR AND COMMON
 COUNCIL OF THE CITY OF NEWARK,
 Incorporated by
 1836). JOSEPH E. HAYNES, Mayor.
 Attest:
 20 S. H. PEMBERTON, City Clerk.

Signed, sealed and delivered
 in the presence of
 Jno. R. Fanshawe,
 Edwin B. Williamson,
 Joseph Coult.
 State of New Jersey,
 County of Essex, ss:

30 Be it remembered that on this twenty-fourth day
 of September, eighteen hundred and eighty-nine, be-
 fore me, the subscriber, a Master in Chancery of New
 Jersey, personally appeared John R. Fanshawe, who
 being by me duly sworn, doth depose and make proof
 to my satisfaction that he is Secretary of The Lehigh
 Valley Railroad Company, one of the parties to the
 foregoing agreement; that he well knows the corporate
 seal of the said The Lehigh Valley Railroad Company;
 that the seal thereto affixed is the proper corporate seal
 of the said Company; that the same was so affixed there-
 to, and the said agreement signed and delivered by
 40 Elisha P. Wilbur, who was, at the date and execution
 thereof, the President of the said Company, in the pres-

ence of deponent, as the voluntary act and deed of the said company, and that deponent thereupon signed the same as subscribing and attesting witness.

Subscribed and sworn to before me this 24th day of JNO R. FANSHAWE.
September, 1889.

EDWIN B. WILLIAMSON,
M. C. C. of N. J.

10

State of New Jersey,
County of Essex, ss:

Be it remembered that on this twenty-fourth day of September, eighteen hundred and eighty-nine, before me, the subscriber, a Master in Chancery of New Jersey, personally appeared David G. Baird, who being by me duly sworn, does depose and make proof to my satisfaction that he is the Secretary of The East Jersey Water Company, one of the parties to the foregoing agreement; that he well knows the corporate seal of the said The East Jersey Water Company; that the seal thereto affixed is the proper corporate seal of the said Company; that the same was so affixed thereto, and the said agreement signed and delivered by Elisha P. Wilbur, who was, at the date and execution thereof, the President of the said Company, in the presence of deponent, as the voluntary act and deed of the said Company, and that deponent thereupon signed the same as subscribing and attesting witness. 20

Subscribed and sworn to before me this 24th day of
September, 1889.

D. G. BAIRD,

30

EDWIN B. WILLIAMSON,
M. C. C. of N. J.

State of New Jersey,
County of Essex, ss:

Be it remembered that on this twenty-sixth day of September, eighteen hundred and eighty-nine, before me, the subscriber, a Master in Chancery of New Jersey, personally appeared Samuel H. Pemberton, who being by me duly sworn, does depose and make proof to my satisfaction that he is the City Clerk of the city of 40

Newark; that he well knows the corporate seal of the Mayor and Common Council of the City of Newark, one of the parties to the foregoing agreement; that the seal thereto affixed is the proper corporate seal of the said city; that the same was so affixed thereto by him, and the said agreement signed and delivered by Joseph E. Haynes, who was, at the date and execution thereof, the
 10 Mayor of the said City, in the presence of deponent, as the voluntary act and deed of the said City, and that thereupon deponent signed the same as subscribing and attesting witness.

Subscribed and sworn to before me this 26th day of S. H. PEMBERTON.
 September, 1889.

EDWIN B. WILLIAMSON,
 M. C. C. of N. J.

State of New Jersey,
 20 County of Essex, ss:

Be it remembered that on this twenty-sixth day of September, eighteen hundred and eighty-nine, before me, the subscriber, a Master in Chancery of New Jersey, personally appeared William E. Greathead, who being by me duly sworn, does depose and make proof to my satisfaction that he is Secretary of the Newark Aqueduct Board of the City of Newark; that he well knows the corporate seal of said The Newark Aqueduct Board, one of the parties to the foregoing agreement; that the seal thereto affixed is the proper corporate seal of the
 30 said The Newark Aqueduct Board; that the same was so affixed thereto, and that the said agreement signed and delivered by Joseph E. Haynes, who was, at the date and execution thereof, the President of the said The Newark Aqueduct Board, in the presence of deponent, as the voluntary act and deed of the said The Newark Aqueduct Board, and that deponent thereupon signed the same as subscribing and attesting witness.

Subscribed and sworn to before me this 26th day of WM. E. GREATHEAD.
 September, 1889.

40 EDWIN B. WILLIAMSON,
 M. C. C. of N. J.

The Morris Canal and Banking Company, having by a lease in perpetuity, dated May fourth, 1881, granted and conveyed to the Lehigh Valley Railroad Company, all its waters, water rights, and other property, real and personal, hereby ratifies and confirms the within contract and in consideration of the making thereof and of one dollar to it paid, unites with the Lehigh Valley Railroad Company, its lessee, in the assignment and conveyance of water and water rights by the said The Lehigh Valley Railroad Company thereby and therein made. 10

In Witness Whereof the said The Morris Canal and Banking Company has hereto set its common seal, and caused the same to be attested by the signature of its Vice-President and Secretary this twenty-fourth day of September, A. D. eighteen hundred and eighty-nine. Executed in duplicate.

THE MORRIS CANAL AND BANKING CO. 20
(Seal of Morris Canal by
and Banking Com- CHAS. HARTSHORNE,
pany of 1844. State Vice-President.
of New Jersey). Attest:
JNO. R. FANSHAWE, Sec'y.

Signed, sealed and delivered
in presence of:

Jno. R. Fanshawe,
Edwin B. Williamson,
Joseph Coult.
State of New Jersey, 30
County of Essex, ss:

Be it remembered that on this twenty-fourth day of September, eighteen hundred and eighty-nine, before me, the subscriber, a Master in Chancery of New Jersey, personally appeared John R. Fanshawe, who being by me duly sworn, does depose and say that he is the Secretary of The Morris Canal and Banking Company, one of the parties named in the foregoing agreement, and who executed the supplementary contract thereto annexed; that he well knows the corporate seal of said The Morris Canal and Banking Company; that the seal thereto affixed is the proper corporate seal of the said 40

Company; that the same was so affixed thereto, and the said supplementary contract signed and delivered by Charles Hartshorne, who was at the date and execution thereof, the Vice-President of the said Company, in the presence of deponent, as the voluntary act and deed of the said Company, and that deponent thereupon signed the same as subscribing and attesting witness.

- 10 Subscribed and sworn to before me this twenty-fourth JNO. R. FANSHAWE.
day of September, 1889.

EDWIN B. WILLIAMSON,
M. C. C. of N. J.

Subsequent Contracts of August 1st, 1892.

- This Agreement, made and entered into this first day of August, in the year of our Lord eighteen hundred and ninety-two, by and between The East Jersey Water
20 Company, a corporation organized under the laws of the State of New Jersey, party of the first part, and The Mayor and Common Council of the City of Newark, in the State of New Jersey, a municipal corporation existing under the laws of the State, party of the second part.

- Whereas the party of the first part has heretofore obtained certain property and rights, and constructed certain works, by means of which it is now delivering to the party of the second part water for domestic uses, extinguishing of fires and other lawful purposes, under
30 and by virtue of a certain contract or agreement, dated September twenty-fourth, eighteen hundred and eighty-nine, to which the several parties hereto were respectively parties; and whereas, the party of the second part in virtue of the provision made for that purpose in said contract or agreement has exercised its option to terminate that part of the said contract which provides for the purchase of water by the million gallons, and has elected to be the owner of the said lands, waters, water rights and water works in its own right absolutely with all their appurtenances.

- 40 And Whereas, the said party of the first part has by deed of conveyance, dated May second, eighteen

hundred and ninety-two, conveyed to the party of the second part the said lands, water rights and water works, with their appurtenances, in pursuance of the said contract, and the said party of the second part upon the making of the said conveyance, has paid to the party of the first part, in the legally authorized and issued bonds of the City of Newark, the sum of four million dollars. which bonds bear date on the second day 10 of May, eighteen hundred and ninety-two, and bear interest at the rate of four per cent. per annum, payable semi-annually.

And, Whereas, by the terms of the said contract or agreement, upon the full performance by the party of the first part named herein of the covenants and agreements contained in the said contract or agreement, the party of the second part hereto would become obligated to pay to the party of the first part, on the twenty-fourth day of September, nineteen hundred, the further sum of two million dollars, and agree therein to deposit its bonds of the character aforesaid in that amount 20 in escrow, to be delivered to the said party of the first part at the last mentioned date.

And Whereas, the party of the second part named herein, claims that the party of the first part has not in all respects fulfilled and performed the covenants and agreements contained in said contract or agreement, by which the party of the first part undertook to obtain the said lands, waters and water rights above referred to, and to construct the said works in accordance with certain terms and conditions, and according to certain 30 specifications in said contract set forth.

Now, Therefore, for the purpose of securing the performance of all the covenants and agreements contained in said contract on the part of the party of the first named herein, to be kept, fulfilled and performed, as in the said contract contained:

This Agreement Witnesseth, that the party of the second part, the City of Newark, will immediately upon the execution of this agreement, deposit with the Trustees, its bonds, of the character aforesaid, in the sum of two million dollars, to be by the said Trustee delivered to the party of the first part, The East Jersey 40

- Water Company, its successors or assigns, on the twenty-fourth of September, in the year nineteen hundred, such bonds not to draw interest until that day, upon the following express conditions: that the said party of the first part, the East Jersey Water Company, shall have prior thereto, completed all the works to be constructed, under said contract between the said The East Jersey
- 10 Water Company and the City of Newark, above referred to, and shall have performed all the terms, conditions, covenants and agreements in the said contract contained, on its part to be kept, fulfilled and performed.

- In Witness Whereof, the parties hereto have caused these presents to be executed as follows: The East Jersey Water Company by the signature of its Vice-President, attested by its Secretary, and sealed with its common seal. The City of Newark by the signature of the
- 20 President of the Board of Street and Water Commissioners, and attested by the Secretary of said Board, and sealed with the seal of the said city, the day and year above written.

THE EAST JERSEY WATER COMPANY,

by

HENRY S. DRINKER, (L.S.)

Vice-President.

Signed, sealed and delivered

in the presence of

Attest:

- 30 D. G. BAIRD, Secretary.

THE MAYOR AND COMMON COUNCIL
OF THE CITY OF NEWARK AND THE
BOARD OF STREET AND WATER
COMMISSIONERS OF THE CITY OF
NEWARK,

by

JAMES SMITH, JR., (L.S.)

President of the Board of Street and Water
Commissioners of the City of Newark.

Attest:

- 40 ENOS RUNYON,
Clerk of the Street and Water
Commissioners of the City of Newark.

In pursuance of a resolution passed this day by the Board of Street and Water Commissioners of the City of Newark we hereby nominate and designate Fidelity Title and Deposit Company, of Newark, N. J., as Trustee under the within paper and fix its compensation at five thousand dollars, one-half of which sum is to be paid by the City of Newark and one-half by the East Jersey Water Company. 10

Newark, N. J., August 1, 1892.

JOSEPH E. HAYNES, Mayor.

JAMES SMITH, Jr.

President Board Street and Water Commissioners.

THE EAST JERSEY WATER COMPANY,

By HENRY S. DRINKER, Vice-President.

Bond and Agreement made by the East Jersey Water Company in the sum of \$500,000, to protect the City of Newark until the title of plant is perfected. 20

Know all men by these presents, That The East Jersey Water Company, a corporation organized under the laws of the State of New Jersey, is held and firmly bound unto the Mayor and Common Council of the City of Newark, in the sum of five hundred thousand dollars, lawful money of the United States of America, to be paid to the said Mayor and Common Council of the City of Newark, their certain attorney, successors or assigns, to which payment well and truly to be made, the said The East Jersey Water Company binds itself, and its successors firmly by these presents. Sealed with the seal of the said The East Jersey Water Company, and dated the first day of August, eighteen hundred and ninety-two. 30

Whereas, The East Jersey Water Company, by a deed of conveyance, bearing date the second day of May, eighteen hundred and ninety-two, has conveyed to the Mayor and Common Council of the City of Newark, the dams, reservoir sites, conduits, and all the works of every nature and description, built and constructed by The East Jersey Water Company, especially for the purpose of furnishing a supply of water for the City of Newark, with certain lands, water and water 40

rights in said deed of conveyance more fully set forth, with full covenants of ownership, warranty, and against encumbrances.

And Whereas, the City of Newark has paid The East Jersey Water Company on account of the said conveyance, and in part execution on its part of a contract or agreement entered into to it the said The
 10 East Jersey Water Company for the construction of the said water works, and the purchase of said lands, water and water rights, four million dollars, by delivering to it the bonds of the said city in that amount, bearing date the second day of May, eighteen hundred and ninety-two.

And Whereas, by a certain other agreement, called an "escrow" agreement, made between the said The East Jersey Water Company and the Mayor and Common Council of the City of Newark, bearing even date
 20 herewith, provision is made for the payment of the second or deferred payment of two million dollars, provided for in said contract, which payment is to be made upon the terms and conditions prescribed therein.

And Whereas, claim has been made on behalf of the Mayor and Common Council of the City of Newark that said works in certain respects do not meet the requirements of the contract made by said city with the said The East Jersey Water Company and that certain things are necessary to perfect the title of the city to said lands, water and water rights so conveyed, and that among others, certain claims for damages remain
 30 unsettled.

And Whereas, the said The East Jersey Water Company as security for the performance of the conditions contained in this bond, has deposited with Trustee five hundred thousand dollars (\$500,000) in bonds of the City of Newark, which bonds are to be held by said Trustee as collateral security for the faithful performance of the terms and conditions of this bond.

Now, Therefore, the condition of said obligation is such that if the said The East Jersey Water Company, its successors or assigns, shall and will perfect and complete the title of the said company and of its grantee
 40 the said City of Newark, of, in and to the lands, water

and water rights conveyed, or intended to be conveyed by the deed of conveyance made by the said The East Jersey Water Company to the said City of Newark, bearing even date herewith, and required by the contract in pursuance of which the said conveyance is made with all their appurtenances, then, a sum equal to two-fifths of the total sum hereby secured shall be deemed to be paid and satisfied. And it is understood and agreed that when and so often as the said The East Jersey Water Company, its successors or assigns shall for the purpose of perfecting such title, pay out and expend any portion of said sum in sums aggregating not less than five thousand dollars (\$5,000), and shall satisfy the Mayor and the Board of Street and Water Commissioners of the City of Newark of such expenditure by producing the vouchers therefor, then bonds equal to the amount so expended and deposited as collateral to this obligation, shall thereupon be released and delivered up to the said company, and from time to time as such payments are made until the total amount so released shall aggregate the sum of the two-fifths of the sum so secured. The balance of said amount so deposited, and not released under the provision just recited, shall be released, and this bond finally discharged and deemed to be fully paid when the title is perfected as aforesaid, and the pipe line or conduit constructed by said Company in the execution of the said contract shall have been fully tested as to construction and capacity, and found to be sufficient in strength and construction to meet the requirements of said contract under which it was built.

It is understood and agreed between the parties hereto that The East Jersey Water Company, its successors and assigns shall, while the bonds remain on deposit as collateral to this agreement, be allowed to collect the interest which may accrue thereon.

When title to said lands and rights have been completed and perfected, all claims for damages adjusted and paid, and the pipe line or conduit tested and found sufficient, then this obligation is to become void, and all bonds deposited as security for the performance of its conditions, not before surrendered and delivered, shall

then be surrendered and delivered by the said Trustee to the said The East Jersey Water Company, its successors or assigns.

THE EAST JERSEY WATER COMPANY,

by

HENRY S. DRINKER, Vice-President.

10

D. G. BAIRD, Secretary.

Signed, sealed and delivered

in the presence of

E. L. Price,

J. J. McDavitt.

20

The words "Fidelity Title and Deposit Company of the City of Newark," 24th and 25th lines, and company in 27th line, P. 2, being stricken and the attest word "trust" in 29th line, P. 2, changed to "Trustee" before signing. Note.—"The Mayor and" on third page first interlined.

In pursuance of a resolution this day passed by The Board of Street and Water Commissioners of the City of Newark we hereby nominate and designate Fidelity Title and Deposit Company of Newark, N. J., as Trustee under the within paper, and fix its compensation at five thousand dollars, one-half of which sum is to be paid by the City of Newark, and one-half by The East Jersey Water Company.

Newark, N. J., Aug., 1892.

30

JOSEPH E. HAYNES, Mayor.

JAMES SMITH, JR.,

Pres't Board Street and Water Commissioners.

THE EAST JERSEY WATER COMPANY,

By HENRY S. DRINKER, Vice-President.

40

Whereas, on the twenty-fourth day of September, eighteen hundred and eighty-nine, a contract under seal was made between the Newark Aqueduct Board and the Mayor and Common Council of the City of Newark, party of the third part to said contract, and The Lehigh Valley Railroad Company, party of the first part hereto and the East Jersey Water Company, party of the second part thereto, for the purpose of procuring for the

said City of Newark, for its present and future needs, a supply of pure and wholesome water for domestic purposes, the extinguishment of fires, and other lawful uses.

And Whereas, in and by said contract the party of the second part thereto covenanted and agreed to and with the party of the third part that the works to be constructed under said contract should be so constructed that the quantity of water delivered at the high service reservoir located on South Orange Avenue in said city should furnish a daily supply of not less than twenty-five million gallons for each and every day at an elevation and under a pressure in said contract indicated, so that it might be from thence distributed by gravity alone throughout the entire limits of the high service district of the said city, including in such district those portions of territory which might be thereafter supplied with water from that point under the head and pressure so indicated.

And Whereas, it has been ascertained by recent tests that the pipe line constructed by the said party of the second part between the receiving reservoir at Belleville and the said high service reservoir on South Orange Avenue is not capable of delivering the quantity of water required by said contract, but will deliver twenty-two and one-half million gallons per day, or thereabouts.

And Whereas, it was also provided in and by said contract that the party of the second part thereto should forthwith proceed to build and construct from some point or points in the water sheds in said contract named thereafter to be located and fixed by the party of the second part to said contract as the necessities of said contract should demand and require to the points thereafter named in the City of Newark, in the County of Essex, a pipe line or pipe lines to be made and constructed of steel, wrought iron or cast iron in a thorough and workmanlike manner, substantially and thoroughly built and constructed of sufficient strength for the purposes required, properly tested and conforming in all respects with the requirements of said agreement, which conduit or conduits should be capable of

conveying and through which there might be conveyed and delivered to the party of the third part to said contract a daily supply of water of not less than fifty million gallons per day during each and every day of the year; providing for such conduit or conduits the necessary right of way, and all necessary adjuncts and appliances, in order to make a first class work for the

10 purposes for which the same were required; and through the conduit or conduits so to be constructed to supply the party of the third part from the sources in said contract named, or one of them, so much pure and wholesome water for domestic purposes, the extinguishment of fire, and other lawful use, as they, the party of the third part, might need and require, up to the maximum quantity agreed to be delivered as aforesaid; that is to say, a daily supply of not less than fifty gallons on each day forever.

And Whereas, by tests it has recently been determined that the pipe line constructed by The East Jersey

20 Water Company from the Macopin intake to the receiving reservoir at Belleville is not sufficient for the purpose of conveying a supply of fifty million gallons of water per day as aforesaid.

And Whereas, the party of the second part to said contract is about to construct an additional pipe line to supply such deficiency in the carrying capacity of the said pipe line from the Macopin intake to the receiving reservoir at Belleville.

And Whereas, the Mayor and Common Council of

30 the City of Newark is desirous of securing the construction of such additional pipe line from the Macopin intake to the said receiving reservoir at Belleville of greater strength and of greater capacity than might be required to deliver at said reservoir, water of the quantity and under the head required to supply the deficiency of the pipe line already constructed between the Macopin intake and the receiving reservoir at Belleville.

Now, therefore, this agreement made this first day

40 of May, in the year of our Lord one thousand eight hundred and ninety-six, between The East Jersey Water Company, a corporation organized and existing by vir-

tue of the laws of the State of New Jersey, party of the first part hereto, and the Mayor and Common Council of the City of Newark, party of the second part hereto and The Lehigh Valley Railroad Company, party of the third part hereto, witnesseth:

First.—That the Mayor and Common Council of the City of Newark hath accepted and doth hereby accept the pipe line heretofore constructed by the party of the first part hereto between the Belleville reservoir and the South Orange Avenue reservoir as a performance of the covenant in said contract contained respecting the quantity of water to be delivered or deliverable through said pipe line at the said South Orange Avenue reservoir. 10

Second.—That said East Jersey Water Company hereby covenants and agrees forthwith to construct and lay from the Macopin intake to the top of Pompton Notch an additional forty-eight-inch pipe and from the Pompton Notch to said receiving reservoir at Belleville an additional forty-two-inch pipe of thickness and strength sufficient to deliver such amount of water as can be transmitted therethrough at a pressure equal to three hundred feet elevation above high water mark in Newark Bay (Newark City datum) at the South Orange Avenue reservoir, when said pipe so to be constructed shall be connected with the present thirty-six inch pipe line extending from the receiving reservoir at Belleville to the high service reservoir on South Orange Avenue. 20

Third.—That the new pipe line so to be constructed shall in all respects conform to the requirements of the contract aforesaid, and none of said contract provisions or guarantees shall be in any way modified or waived by this agreement, excepting the provision relating to the amount of water to be delivered at said South Orange Avenue reservoir. 30

Fourth.—The said pipe line to be constructed under this contract shall be laid and constructed upon the property or right of way belonging to the Mayor and Common Council of the City of Newark or upon right of way to be provided by The East Jersey Water Company and conveyed to the City pursuant to the terms of said original contract. 40

Fifth.—The Mayor and Common Council of the City of Newark upon the completion of the new pipe line to be constructed and laid under the provisions of this contract, and conveyance to it of good title to the right of way through the lands through which said pipe may be laid outside of the present right of way of said City
 10 will pay to The East Jersey Water Company the sum of ten thousand dollars, but such payment shall not be considered as an acceptance of the said pipe line or of the works heretofore constructed or to be hereafter constructed by The East Jersey Water Company.

In Witness Whereof, the party of the first part hereto has caused these presents to be signed by its Vice-President and its corporate seal to be hereto attached and attested by its Assistant Secretary; the party of the second part hath by a resolution of its Board of Street and Water Commissioners caused these presents to be
 20 signed by the President of said Board, the corporate seal of the City to be hereto affixed and attested by its Clerk; and the party of the third part has caused these presents to be signed by its Third Vice-President and its corporate seal to be hereto affixed and attested by its Assistant Secretary, the day and year aforesaid.

THE EAST JERSEY WATER COMPANY,
 By HENRY DRINKER, Vice-Pres. (L.S.)

Attest:

30 GEORGE T. BAKER, Ass't Sec'y.

THE BOARD OF STREET AND WATER COMMISSIONERS OF THE CITY OF NEWARK,
 By HARRISON VAN DUYNE, President. (L.S.)

Attest:

A. M. LINNETT, Clerk of the Board.
 THE LEHIGH VALLEY RAILROAD COMPANY,
 By JOHN B. GARRETT, Third Vice-Pres.

Attest:

40 JNO. R. FANSHAW, Sec'y.

THE STATE OF NEW YORK
IN SENATE

January 1, 1901
REPORT OF THE

COMMISSIONER OF THE LAND OFFICE
IN RESPONSE TO A RESOLUTION

PASSED BY THE SENATE
MAY 1, 1899

ALBANY: J. B. LIPPINCOTT & CO., PRINTERS.
1901.

THE STATE OF NEW YORK
IN SENATE

January 1, 1901

