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Notice of Appeal.

Filed Oct. 22, 1913.

New Jersey Supreme Court.

10

DELAWARE RIVER QUARRY AND CON-
STRUCTION COMPANY,

Plaintiff-Appellant,

vs.

BOARD OF CHOSEN FREEHOLDERS OF
THE COUNTY OF HUNTERDON,

Defendant-Appellee.

*Notice of
Appeal and
Reasons.*

20

To Harry L. Stout, attorney for defendant:

TAKE NOTICE, that the plaintiff hereby appeals to the Court of Errors and Appeals in the last resort in all causes, from that part of the judgment entered in this cause in the New Jersey Supreme Court, which holds that the plaintiff is not entitled to recover the balance alleged in its complaint to be due to it from the defendant under its contract with the defendant, to wit, the sum of ten thousand four hundred and fifty-six dollars and fifty-one cents, or any part thereof, on the following grounds:

30

First. Because the Trial Court, sitting without a jury, found, contrary to law, that the plaintiff was not entitled to recover the balance claimed to be due from the defendant under the contract between the plaintiff and defendant, as set forth in the complaint filed herein, to wit, the sum of ten thousand four hundred and fifty-six dollars and fifty-one cents, or any

40

Notice of Appeal.

part thereof, notwithstanding the contract was fully performed, because the road which the plaintiff contracted to build, for which the above sum was a part and final payment, had never been accepted in writing by the Board of Chosen Freeholders or by the State Road Commissioner, or either or both of them."

Second. Because the Trial Court denied the following request of the plaintiff's counsel to instruct the Trial Judge, sitting as a jury:—"That the plaintiff is entitled to recover if the Trial Court is satisfied under the proof that the work of construction has been performed according to the contract, and this notwithstanding the fact that the said defendant and the said Road Commissioner have either or both refused to accept the road or make or give a certificate of acceptance in writing."

Third. Because the Trial Court denied the request of plaintiff's counsel to instruct the Trial Judge, sitting as a jury, as follows:—"That the plaintiff is entitled to recover in this case, if the Trial Court is satisfied, under the proof, that the work of construction by the plaintiff has been substantially performed under the terms of the contract, notwithstanding the fact that the defendant and State Road Commissioner have refused to accept the road or give a certificate of acceptance in writing; *less, however*, a proper allowance, against the balance of the contract price, admittedly remaining unpaid, to cover the difference between the value of the work done and the cost to the defendant, if any, of making it a full compliance with the contract."

Fourth. Because the Trial Court denied the request of the plaintiff's counsel to instruct the Trial Judge, sitting as a jury, as follows:—"If substantial performance of the contract has been shown, even though there was failure in some minor particulars, the admitted balance of the contract price remaining

Notice of Appeal.

unpaid may be recovered, less a fair allowance to the defendant to make good the defects."

Fifth. The Trial Court, sitting as a jury, found that the plaintiff was only entitled to recover the amount due for extra work admitted to be due by the defendant, to wit, the sum of two thousand three hundred and nine dollars and six cents, with interest, when the Trial Court should have given judgment for the plaintiff for the full amount claimed. 10

FORT & FORT,
Attorneys for Appellant.

Service of the within notice and reason is hereby acknowledged this 18th day of October, 1913.

H. L. STOUT,
Attorney for Defendant.

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30

40

Summons.

Summons.

Issued July 31, 1912.

State of New Jersey, to the Board of
Chosen Freeholders of the County of
Hunterdon:

10 You are summoned to answer the annexed complaint of Delaware River Quarry and Construction Company (a corporation of the State of New Jersey), in an action at law in the Supreme Court, and take notice that unless you file your answer to said complaint with the Clerk of the Supreme Court, in Trenton, within twenty days after service upon you of this writ and the annexed complaint, plaintiff may proceed in the suit and judgment be entered against you.

20 Witness, William S. Gummere, Chief Justice of the Supreme Court, at Trenton, this 31st day of July, nineteen hundred and twelve.

FORT & FORT,

WM. RIKER, JR.,

Attorneys.

Clerk.

30

40

Complaint.

Complaint.

NEW JERSEY SUPREME COURT.

Hudson County.

DELAWARE RIVER QUARRY AND CON-
STRUCTION COMPANY (a corpora-
tion),

Plaintiff,

vs.

BOARD OF CHOSEN FREEHOLDERS OF
THE COUNTY OF HUNTERDON,

Defendant.

Complaint.

10

20

The plaintiff, Delaware River Quarry and Construc-
tion Company (a corporation organized under the
laws of the State of New Jersey, with its principal
office in the City of Jersey City, County of Hudson
and State of New Jersey), says that:

1. The plaintiff, Delaware River Quarry and Con-
struction Company, on or about the 18th day of No-
vember, 1909, was a corporation engaged in the busi-
ness of the construction, building, maintaining and
repairing of public roads and highways in the City
of Jersey City, County of Hudson and State of New
Jersey, and elsewhere, and the defendant was a law-
fully constituted Board of Chosen Freeholders in the
County of Hunterdon and State of New Jersey, pur-
suant to the statute.

30

2. On or about the 18th day of November, 1909,
the plaintiff, Delaware River Quarry and Construc-
tion Company and the defendant, The Board of Chos-

40

Complaint.

10 en Freeholders of the County of Hunterdon (a body corporate), did enter into a contract in writing, whereby the plaintiff agreed to furnish and deliver materials and to perform all the work and labor required to be performed in the building and improving of a public road or highway, known as Whitehouse-Lebanon Road, in the County of Hunterdon, in the State of New Jersey, and to use in the construction thereof certain materials mentioned in certain specifications which were made a part of the contract. The said road was to extend from the Town of Whitehouse to the Town of Lebanon, in the Township of Readington and Clinton, in the said county, a distance of 4-366/1000 miles.

20 3. By the terms of the said contract the defendant agreed, in consideration of the work to be done by the plaintiff, to pay to the plaintiff, when the work was completed, in accordance with the specifications, the sum of \$51,172.45, in monthly payments, on presentation by the plaintiff of proper certificates of the engineer and the supervisor of the work. (A copy of which contract and specifications is hereto annexed.)

30 4. The said contract was adopted and approved by the Commissioner of Public Roads of the State of New Jersey on the 8th day of April, 1910, and the plaintiff executed a bond to secure the performance of the said contract unto the defendant, The Board of Chosen Freeholders, in the sum of \$52,000.00, on the 1st day of December, 1909.

40 5. The plaintiff fully performed its contract and completed and finished said road, and furnished and delivered all the materials necessary for the completion of the road, in accordance with the terms of the contract and specifications, within the time prescribed by the specifications. Plaintiff further performed certain extra work upon the said road which it was not bound to do under the terms of the said contract.

6. Plaintiff states that it has not been paid a large sum of money due to it from the defendant under the terms of the said contract, and for extra work, which defendant agreed to pay. Plaintiff demands from the defendant, The Board of Chosen Freeholders of Hunterdon County, the sum of \$12,765.57, with interest from January 1st, 1911, which defendant agreed to pay plaintiff by the terms of the said contract, and which defendant has failed to pay, and in payment for extra work which plaintiff has performed, not included in the said contract, for which work said defendant has failed to pay plaintiff.

FORT & FORT,
Attorneys for Plaintiff.

The following is a bill of particulars of the amount due the plaintiff by the terms of the said contract and for the extra work which plaintiff performed.

To amount of contract price agreed..... \$51,173.45

To extra work:

995 cu. yds. extra excavation, 35		
cts.	\$348.25	
304 sq. yds. macadam driveways,		
73 cts.	221.92	
130 sq. yds. cobble gutter, 50		
cts.	65.00	
292 ft. underdrain, 18 cts.	52.56	30
2221 sq. yds. moc wings, 73 cts..	1,621.33	2,309.06
		\$53,482.51

Contract.

By payments on account as follows:

1910

	April 23	\$ 1,003.20	
	May 5	2,315.80	
	June 3	1,533.00	
	July 9	3,683.20	
	Aug. 5	3,906.68	
10	Sept. 2	5,508.81	
	Oct. 6	10,320.05	
	Oct. 31	8,501.68	
	Nov. 30	3,944.52	40,716.94
	Balance due	\$12,765.57	

FORT & FORT,

Attorneys for Plaintiff.

20

CONTRACT.

30 This agreement, made the eighteenth day of November, in the year of our Lord one thousand nine hundred and nine, between The Board of Chosen Freeholders of the County of Hunterdon, party of the first part, and The Delaware River Quarry and Construction Company, a corporation, incorporated under the laws of the State of New Jersey, whose principal office is at No. 26 Exchange Place in the City of Jersey City, New Jersey, party of the second part,

0 WITNESSETH, That the said party of the second part, for and in consideration of the payments hereinafter specified and agreed to be made by the party of the first part, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required to be furnished and delivered, done and performed in and about the improving of the public road known as "White House —Lebanon Road" and use thereon in the construction

Contract.

of same with "Trapite" in accordance with the specifications hereto annexed, beginning at White House at intersection with White House-Flemington Macadam Road and running through the Townships of Readington and Clinton, and extending to Lebanon over what was formerly the New Jersey and Easton Turnpike in the townships of Readington and Clinton, a distance of 23,050 feet or 4.366 miles, in strict and entire conformity with the plans on file in the engineer's office and with the specifications hereto annexed and duly approved by resolution of The Board of Chosen Freeholders of the County of Hunterdon, adopted the seventh day of October, in the year of our Lord, one thousand nine hundred and nine and approved by the State Commissioner of Public Roads on the third day of November, in the year of our Lord, one thousand nine hundred and nine which said plans and specifications are hereby made part of this agreement as fully and with the same effect as if the same had been set forth at length in the body of this agreement.

In consideration of the premises the party of the first part hereby agrees to pay to the party of the second part for said work, when completed in accordance with the said specifications, the sum of fifty-one thousand one hundred and seventy-three dollars and forty-five cents (\$51,173.45), payments to be made as provided in said specifications upon presentation of the proper certificates of the engineer and supervisor and upon the terms set forth in the annexed specifications.

This contract to be binding upon The Board of Chosen Freeholders of the County of Hunterdon, its successors or assigns, and upon The Delaware River Quarry and Construction Co., the party of the second part, and its assigns.

IN WITNESS WHEREOF, The Board of Chosen Freeholders of the County of Hunterdon, has caused this

Contract.

instrument to be signed by its director, attested by its clerk and its corporate seal to be hereunto affixed, pursuant to a resolution of said Board passed for that purpose, and the said party of the second part has hereunto set its hand and affixed its corporate seal the day and year first above written.

(SEAL)

JOHN W. SHARP, (SEAL)

10 *Director of the Board of Chosen Freeholders of
the County of Hunterdon.*

DELAWARE RIVER QUARRY AND
CONSTRUCTION COMPANY, (SEAL)

R. A. MONTGOMERY,
President.

JOHN F. SHANLEY, JR.,
Secretary.

20 Signed, sealed and delivered in the
presence of

F. A. DALRYMPLE,
Clerk.

This contract approved this eighth day of April,
1910.

FREDERICK GILKYSON,
State Commissioner of Public Roads.

30

40

*Specifications.***SPECIFICATIONS.**

(Only the portion of the specifications which are material to the questions involved are printed.)

For a stone road in Hunterdon County, New Jersey, known as White House-Lebanon Road, beginning at White House, at intersection with White House-Flemington macadam road, extending to Lebanon over what was formerly the New Jersey and Easton Turnpike, a distance of 23,050 feet, or 4.366 miles. Stone, 14 feet wide, 6 inches deep; if of Telford, 11 inches deep. Earth, 20 feet wide. Total width, 34 feet. 10

WORK TO BE PERFORMED.

1. The work to be performed will consist in furnishing all material, tools, machinery and labor necessary for the efficient and proper grading of roadway, side ditches and side banks, laying, spreading and rolling of road metal, and all other work of construction incidental thereto, as hereinafter specified, and leaving the roadway complete in every manner ready for immediate use. 20

PLANS AND DRAWINGS.

2. The plan, profile and cross-sections on file in the office of the State Commissioner of Public Roads and at the office of Grant Davis, County Engineer, White House Station, N. J., or at the office of H. L. Stout, County Solicitor, Flemington, N. J., show general location, profile, details and dimensions. The work will be constructed in all respects according to the above-mentioned plan, profile and cross-sections, which form part of these specifications. 30

3. Any variation of location, profile, size and dimensions from that shown on the plans, as may be required by the exigencies and construction, will, in all cases, be determined by the Engineer, but the contractor shall not, on any pretense, save that of the written order of the contracting parties and the State Commissioner of Public Roads, deviate from the intent of the plans or specifications. 40

Specifications.

4. On all drawings, figured dimensions are to govern in cases of discrepancy between scale and figures.

* * * * *

SPECIFICATIONS FOR TRAPITE PAVEMENT. WATER PROOF AND DUSTLESS.

Trapite shall consist of a mixture as follows:

- (a) Asphaltic Cement (refined asphalt and flux).
- (b) Sand of satisfactory grading and grain.
- 10 (c) Filler, consisting of finely powdered mineral material.
- (d) Trap Rock, run of crusher up to one inch.

Per cent. of bitumen in said asphalt cement shall in no event fall below sixty (60) and shall not be affected by the action of water, oxidize, nor be susceptible to atmospheric influences.

COMBINING MATERIALS.

- 20 The material complying with the above specifications shall be mixed in proportion by weight, depending upon their character. The entire mixture to be heated separately to approximately 340 to 380 degrees Fahrenheit.

* * * * *

STONE CONSTRUCTION.

TELFORD FOUNDATIONS.

- 30 After the roadbed has been formed and rolled as above specified, and has passed the inspection of the Engineer and Supervisor, a bottom course of stone, of an average depth of eight inches, is to be set by hand as a close, firm pavement, the stone to be placed on their broadest edges lengthwise across the road in such a manner as to break joints as much as possible, the breadth of the upper edge not to exceed four inches. The interstices are then to be filled with stone chips, firmly wedged by hand with a hammer, and projecting points broken off. No stone of greater length than ten (10) inches or width of four (4) inches shall
- 40 be used, except each alternate stone on outer edge, which shall be double the length of the others and

Specifications.

well tied into the bed of the road. All stones with a flat, smooth surface must be broken. The whole surface of this pavement must be subjected to a thorough settling or ramming with heavy sledge-hammers, and thoroughly rolled with a ten (10) ton steam roller. No stone larger than two and one-half ($2\frac{1}{2}$) inches shall be left loose on top of telford. Enough stone one (1) inch in size must be placed on telford foundation to give uniform surface, and thoroughly rolled before trapite is applied. 10

MACADAM.**FIRST COURSE OF BROKEN STONE.**

After the roadbed has been formed and rolled as above specified, and has passed the inspection of the Engineer and Supervisor, the first layer of broken stone, consisting of two and one-half ($2\frac{1}{2}$) inch stone, or stone that will pass through a ring three (3) inches in diameter, shall be deposited in a uniform layer, having a depth of four (4) inches, and rolled repeatedly with a ten (10) ton standard steam macadam roller until compacted to the satisfaction of the Engineer and Supervisor. No stone in this course shall be less than two (2) inches in length. 20

The depth of loose stone in this and all other courses must be measured by blocks the required thickness of the said loose stone. These blocks must be placed at frequent intervals amid the loose stone when being spread. 30

BINDER ON FIRST COURSE OF BROKEN STONE.

On the first course of stone a quantity of stone screenings shall be spread in a uniform layer, and the whole rolled until the stone ceases to sink or creep in front of the roller.

SECOND COURSE OF BROKEN STONE.

The second course of broken stone shall consist of one and one-half ($1\frac{1}{2}$) inch stone, that is, every 40

Specifications.

10 piece of stone shall be broken so that it can be passed through a ring two (2) inches in diameter, and no stone shall be more than two (2) inches or less than one (1) inch long. This course shall be spread in a uniform layer having a depth of two (2) inches and rolled with a ten (10) ton standard steam macadam roller until thoroughly settled into place to the satisfaction of the Engineer and Supervisor. Clean screenings, free from loam or clay, shall then be spread in sufficient quantity to fill fifty (50) per cent. of the voids and the whole re-rolled until the screenings is shaken down below the surface of this course of stone.

FINISHING COURSE.

Trapite to be applied to either macadam or telford base prepared as above.

* * * * *

LIABILITIES OF CONTRACTOR.

20 55. He shall maintain sufficient guards by day and night to prevent accidents from travel, and will be liable for any damage which may arise from his neglect to do so, or from any omission on his part.

56. He is to commence and prosecute the work upon the road at the end farthest from the source of

30 supply of broken stone, unless otherwise ordered by the Engineer, within.....days from and after the signing of the contract, and shall continue work thereon until completion, except as herein provided.

41 57. He further agrees to complete the same on or before the fifteenth day of October, A. D., 1910. Twenty dollars for each day that the work shall remain uncompleted, after the time allowed by contract, may be deducted, as liquidated damages, from any moneys due contractor, unless otherwise agreed upon by the Board of Chosen Freeholders, after presentation of certificate of the Engineer recommending the extension of the time limit of completion.

Specifications.

58. The contractor shall keep the finished roadway, shoulders, side slopes, ditches and underdrains in repair for the period of one year from the date of its completion and acceptance, and, in addition thereto, for as much longer as for any period or periods during said year it shall be out of proper condition. If during that time, the roadway or any part of the work shall, in the judgment of the Engineer and the Board of Chosen Freeholders, require repairing, and they shall duly notify the contractor to make such repairs as required, and the contractor should refuse or neglect to do so to the satisfaction of the said Engineer and the Board of Chosen Freeholders, within five days from the date of service of notice, then the said Board of Chosen Freeholders shall have the right to have the work done by other proper parties, and to deduct from any moneys due to said contractor an amount sufficient to cover the cost of said repairs, and if there be no money due to said contractor, then the said Board of Chosen Freeholders shall have the right to maintain an action against the surety of said contractor for the recovery of the cost of said repairs.

PROVISION FOR DRAINAGE.

63. If it is necessary in the prosecution of the work to interrupt or obstruct the natural drainage of the surface, or the flow of artificial drains, the contractor shall provide for the same during the progress of the work in such a way that no damage shall result to either public or private interests. He shall be held liable for all damages which may result from any neglect to provide for either natural or artificial drainage, which he may have interrupted.

* * * * *

ENGINEER.

67. The Engineer shall be selected or appointed by the Board of Chosen Freeholders and paid by it. He shall furnish all surveys, profiles, plans, specifications and estimate of quantities of all kinds before

Specifications.

specifications are signed, and in such a clear manner that lump bids can be made upon the work. He shall furnish all lines and grades required for the completion of the work. He shall furnish estimates for quantities of work done before partial payments can be made, the quantity of road laid being determined by surface measurements. Should any difference arise between the contracting parties as to the meaning or intent of these specifications, his decisions on these matters are to be final and conclusive. The work is to be done according to his directions, and if any material of which he does not approve is brought upon the road, it is to be removed at the expense of the contractor. If the contractor fails or neglects to do any part of the work as specified or as directed by the Engineer, then, in that case, all other work shall be discontinued on notice from the Engineer to the contractor, or to the superintendent or foreman in charge of the work for the contractor, until such time as the work complained of has been done to the satisfaction of the Engineer, and the contractor will not be entitled to or allowed any compensation or extension of time for such discontinuation or suspension of the work.

* * * * *

PAYMENTS.

73. Monthly payments will be made by the Board of Chosen Freeholders to the contractor for work performed, upon presentation by him of the proper certificates of the Engineer and Supervisor, in a sum not to exceed eighty per cent. of the amount then due, together with releases from all liens, if required. Fifteen per cent. will be paid at the completion of the work and the acceptance of the same in writing by the Board of Chosen Freeholders and the State Commissioner of Public Roads. The remainder or five per cent. will be retained by the Board of Chosen Freeholders for a period of one year as security for the faithful performance of Article 58.

Answer.

Answer.

Filed September 9, 1912.

Defendant says:

1. It admits the first paragraph.
2. It admits the second paragraph.
3. It admits the third paragraph.
4. It admits the fourth paragraph.
5. It denies the fifth paragraph.
6. It denies the sixth paragraph.

10

7. It claims that the plaintiff did not perform its contract and complete and finish said road and furnish and deliver all the materials necessary for the completion of said road in accordance with the terms of the contract and specifications set forth in paragraph two. 20

8. By way of counterclaim against the plaintiff the defendant says that:

1. It repeats the statements in paragraph seven.
2. It claims that the said road has never been completed and finished according to the terms of the contract and specifications, and that the plaintiff used a very inferior quality of material in constructing said road and did not use the quantity of material required under said contract. 30

The defendant counterclaims twenty thousand dollars damages.

H. L. STOUT,
Attorney of Defendant.

Reply.

Reply.

Filed September 19, 1912.

- 10 1. The plaintiff says that defendant is entitled to no counter-claim as stated in paragraph eight, and states that the road has been completed and finished according to the terms of the contract and specifications, and that plaintiff used the best quality of material in constructing the said road and the quality and quantity of material required under the contract.

FORT & FORT,
Attorneys of Plaintiff.

- 20 I, William C. Gebhardt, Clerk of the Supreme Court of the State of New Jersey, do certify that the foregoing is a true transcript of the pleadings in the above stated cause as the same remain on file in my office.

In testimony whereof, I have set my hand and the seal of said Court, at Trenton, this fourth day of March, A. D., nineteen hundred and thirteen.

(SEAL)

WM. C. GEBHARDT,
Clerk.

30

40

Opening by Plaintiff.

NEW JERSEY SUPREME COURT.

HUNTERDON CIRCUIT.

THE DELAWARE RIVER QUARRY AND
CONSTRUCTION COMPANY,

vs.

THE BOARD OF CHOSEN FREEHOLD-
ERS OF THE COUNTY OF HUNTER-
DON.

On Contract.

10

Transcript of shorthand testimony, etc., taken in the above stated matter, before Honorable Benjamin A. Vail, Circuit Court Judge, without a jury, at the Court House, Flemington, New Jersey, on Thursday, March sixth, nineteen hundred and thirteen. 20

Appearances:

J. Franklin Fort, Esq., and Jehiel G. Shipman, Esq. (Fort & Fort), for the plaintiff.

Harry L. Stout, Esq., for the defendant.

Mr. Fort opened for the plaintiff.

Mr. Fort. I offer in evidence the contract dated November 18, 1909, between the Board of Freeholders of the County of Hunterdon and The Delaware River Quarry and Construction Company, a corporation, the plaintiff in this case, which contract was for the construction of the road in question, described as the Whitehouse-Lebanon road, and providing for the use, in the construction of said road, of Trapite, in accordance with the specifications, hereto annexed. That contract is signed by Mr. Stout, as director of the Board of Freeholders, and by the construction company, through its president, Mr. Montgomery, 30 40

Opening by Plaintiff.

and was approved on the 18th day of April, 1910, by the State Road Commission.

Marked Exhibit P. 1.

10 *Mr. Fort.* I offer a supplemental agreement dated on the 16th day of December, 1909, between the Board of Chosen Freeholders and the same company referring to this agreement of November 18, which we have just offered in evidence, and which provides, "It is agreed by and between the parties hereto that if, after the placing of the Trapite upon said Ringoes-Lambertville road at the point herein designated, and after a test of winter's use upon inspection by State Road Commissioner Gilkyson and the party of the first part, it is determined to be a proper material of which to construct the Whitehouse-Lebanon road, and the contract heretofore made and entered into between the parties hereto is approved by State Road Commissioner Frederick Gilkynson, that said road shall then be constructed according to said agreement." That was to give a test of Trapite as to whether they could use it the next April.

20 The paper last referred to is marked Exhibit P. 2.

30 *Mr. Fort.* We offer in evidence also the minutes of the Board of Chosen Freeholders of November 16 and 17, 1909, which relate to this contract, and show that it was to be Trapite. Your honor will notice among the papers that three or four kinds of material were bid on for the construction of the road; that one was to be Warrenite and another was simply pure Macadam road and the Board of Freeholders had the option to elect which they would take, and they took Trapite on the bid of the plaintiff in this case.

(Exhibit P. 3.)

40 *Mr. Fort.* Then I want to offer in evidence the minutes of the Board of Chosen Freeholders of December 22, 1910, page 185. The minutes of December 29, 1910, showing a resolution of the Board of Freeholders accepting the road.

Robert Montgomery, direct.

I offer the certificates of the engineer of the county, who was the party to approve it as the work progressed. They were payments which were made. There are nine of these.

(Marked Exhibit P. 4.)

Mr. Fort. I also offer in evidence—

Mr. Stout. I will object to the admission of that. Just state what you want to offer it for. 10

Mr. Fort. I offer a paper signed by Grant Davis, engineer, and by Higgins, supervisor, which purports to be a certificate with relation to this road, made by the engineer and supervisor. As we claim, this is the final certificate on that road, required to be provided by the contract.

Mr. Stout. That is the reason I am going to object to the validity of that certificate for the reason that it is not a certificate, except that it is filed with the Board of Freeholders to show the quantity of material that went into that road. 20

The Court. I will receive it for what it is worth, reserving to you the right to move to strike it out.

Mr. Stout. Yes, sir.

(Marked Exhibit P. 5.)

The Court. I suppose these are the original papers and perhaps the Freeholders do not like to have them marked or pass out of their possession.

Mr. Stout. I do not object to their being marked. 30

ROBERT MONTGOMERY, sworn for the plaintiff.

Direct examination by Mr. Fort.

Q Where do you reside?

A Lambertville, New Jersey.

Q In this county?

A In this county.

Q Are you the president, and were you the president, of the Delaware River Quarry and Construction Company on the 18th of November, last? 40

Robert Montgomery, direct.

A I was.

Q And still are?

A I am.

Q This contract which has been offered and admitted in evidence bears your signature as president of the company?

A Yes.

10 Q Who had charge of the construction of this Whitehouse-Lebanon road?

A The foreman do you mean?

Q Who had general charge of it?

A I had general charge of it.

Q Were you there more or less frequently, and if so how frequently?

A Three or four times a week.

Q Who was foreman on the work?

A Thomas Hobin.

20 Q Who had charge of the mixing of the concrete and asphalt and cement?

A It all came directly under Hobin.

Q Who was personally directly in supervision of that, directly on the job?

A He was there most of the time, yes.

Q What kind of a road was this that you were to construct?

A Trapite.

30 Q After you made this contract on the 18th of November, 1909, you apparently made an agreement with the Board of Chosen Freeholders of the County of Hunterdon on the 16th of December, 1909, that has been offered in evidence. Do you remember that?

A I do.

Q What did that relate to?

A To the method of laying this pavement.

Q Did you lay a sample pavement, so to speak?

A I did.

Q Where?

40 A Near Lambertville.

Robert Montgomery, direct.

Q Was that left down during the entire winter?

A It was.

Q Did you begin work on the contract for the Whitehouse-Lebanon road before the Ringoes sample, as it is called, was laid?

A No, it was afterward.

Q And after the winter?

A After the winter.

Q What was the object of laying this Ringoes road sample? 10

A To test the materials in the road, and have it go over the winter and see if it was suitable road material and if it was standing the winter.

Q As I remember it, if this had not been satisfactory, there is an option in this agreement, is there not, that you should built some other kind of road.

A For less money, yes; change the method.

Q After the winter, what kind of a road did you construct on the Whitehouse-Lebanon road? 20

A The same as was constructed near Lambertville.

Q Trapite?

A Trapite, the same material, the same kind of material.

Q And that road was constructed by you under what contract?

A The Whitehouse road?

Q Yes.

A Under the contract with the Board of Freeholders. 30

Q Of November 18, 1909?

A Yes.

Q When was the work on that road completed?

A In the year 1910.

Q Do you remember about what time?

A I think about the first of December—it was in the fall of 1910.

Q Were there any supervisors on this work? 40

Robert Montgomery, direct.

A Yes, sir, the engineer in charge and a supervisor appointed by the State.

Q Who was the supervisor appointed by the State?

A Israel Higgins.

Q Who had charge of the work for the county?

A Grant Davis, the county engineer.

10 Q Were members of the Board of Freeholders, any of them, in supervision over it other than through these officers?

A Some of the board were there nearly every week.

Q Would orders be given in relation to the construction of this road by the engineer?

A By the engineer and supervisor.

20 Q Were any orders given to you by the engineer or supervisor in the process of the construction of this road which were not complied with?

A No, sir. I would like to refer back to a question you asked a moment ago, about who else was in charge of the road. My son was there a good part of the time looking after the mixing.

Q That is what I referred to, yes.

A Yes, he was there looking after the mixing.

Q Do you know of any respect in which you failed to comply with the specifications in the construction of this road?

30 A I do not.

Q During the progress of the work did the State supervisor or inspector, or whatever he was called—

A The State commissioner.

Q No, I do not mean the State Commissioner Higgins, or the engineer in charge for this county make claim that you had failed to comply with the specifications?

A Never.

40 Q You might have been required, I suppose, once in a while, to make changes?

Robert Montgomery, cross.

A Slight changes, but no material changes in the work at all; there might have been some small matter, but they never asked me to do anything that I did not comply with.

Q I am speaking generally when you were through with the road, was there any complaint or allegation made to you by either the engineer or the inspector that you had failed to build this road according to specifications? 10

A No, never.

Cross examination by Mr. Stout.

Q When you bid for the construction of the Whitehouse Lebanon road on the 16th of November, 1909, in your bid, you bid for the construction of a road with oil, didn't you?

A I did.

Q And a plain water-bound Macadam road?

A I do not remember how many we bid on; I remember that we bid on more than one character. 20

Q And a trapite road?

A Yes.

Q The contract offered in evidence contains your bid, I think, in your own handwriting?

A Yes.

Q And you bid on—

A Three different methods.

Q Oil, and without oil, and trapite?

A That is right. 30

Q At the time that you submitted these bids, do you recall that you were the lowest bidder for all three methods of road construction?

A I think I was; I don't remember about that.

Q Trapite was a new method of road construction by your company was it not, at that time?

A No, we had laid some before.

Q Where had you laid some before November 16, 1909.

A The North Philadelphia station. 40

Robert Montgomery, cross.

Q You had laid some there?

A Yes.

Q Had you laid some in North Philadelphia under the same specifications that are attached to this contract?

A The same thing.

Q Who prepared these specifications for trapite?

A They were prepared in my office.

10 Q Do you know by whom?

A By myself and—practically I did the whole work myself.

Q Did you have connected with you at that time in the treatment of the trapite specifications a man by the name of Brackett?

A He was working for me.

Q He was interested in your road specifications of trapite, wasn't he?

A No, he was—how do you mean?

20 Q More than an employee?

A No, he was practically an employee.

Q He is a man who had had quite considerable experience in asphalt roads?

A Not so much in asphalt roads as a clerk or errand boy.

Q That was not his specialty?

A No.

Q Now, Mr. Montgomery, are you sure that you had this piece of road in Philadelphia prior to November 18, 1909?

30 A I am not sure; I think so. I can refresh my memory and give it to you.

Q If that were true, why didn't you submit a sample of the North Philadelphia pavement as a trapite pavement?

A I wasn't asked to.

Q You were told that the contract for the construction of a trapite road would not be approved until it was demonstrated that it was a proper kind of pavement to lay.

40

Robert Montgomery, cross.

A I was asked to do that in this county.

Q And you were asked by the State Road Commissioner and the Freeholders to do that?

A Yes.

Q Now I ask you again, if that was true, why didn't you tell them that you had a pavement in North Philadelphia made of trapite?

A I very likely did tell them.

Q And after that they insisted on a sample to be made here? 10

A They did.

Q The State Road Commissioner agreed, did he not, to pay the county of Hunterdon a thousand dollars to have a thousand yards of this trapite laid on the Ringoes road to demonstrate its quality?

A I think that was the conversation at the time.

Q And the place was designated for the laying of that pavement? 20

A Yes.

Q And you did lay it?

A Yes, we laid the pavement.

Q And you laid it in December?

A Part of it in December, I think it was the latter part of November.

Q You did not lay any until after the execution of this contract for the thousand yards which was on December 16th?

A I do not remember about that. We laid this pavement at Lambertville, the winter previous to that. 30

Q To December 22?

A Yes.

Q Before you got that pavement entirely finished you were stopped on account of the snow?

A Yes.

Q And you did not lay a thousand yards?

A No, we laid about seven hundred and fifty.

Q Feet?

A Yards. 40

Robert Montgomery, cross.

Q When this trapite was laid on the road just above Lambertville there was a heavy snow that come up while you were working there, wasn't there?

A I don't remember that.

Q And you were compelled to quit work?

A I think that was the reason. We had bad weather, I know.

10 Q And that is the reason you only put in seven hundred and fifty yards instead of a thousand?

A Yes, and that is all we were paid for.

Q In the preparation of that trapite for laying on the Ringoes road you had Mr. Brackett, didn't you?

A I had a number of men. Mr. Brackett was among the number, yes.

Q And Mr. Brackett took charge of the laying of that trapite, didn't he?

20 A Not he, no. I was there myself the greater part of the time.

Q Didn't he superintend the mixture?

A No, he was back and forth from one place to the other.

Q In that trapite did you use sand?

A No.

Q Did you use the run of the crusher?

A Yes.

Q That included dust?

A Yes.

30 Q What quality of asphalt and cement did you use?

A Trinidad. Trinidad Lake, refined.

Q What filler did you use?

A Stone dust; lime stone dust was the filler.

Q Was that a different dust from the dust you would obtain from the stone with the run of the crusher?

A Yes.

40 Q You used the run of the crusher, including the dust, and also the filler?

Robert Montgomery, cross.

A Yes.

Q What was the purpose of that?

A Of the filler?

Q Yes.

A To harden the road.

Q What was the purpose of using the trap-rock or run of the crusher?

A It is the most suitable rock for that purpose.

Q You used the dust—for what purpose?

10

A It all went in; that was all stone, stone dust.

Q Do you usually do that outside of asphalt pavement?

A No.

Q Isn't that the reason you did that, that it was for the purpose of filling up the voids, and making the road water-proof?

A No.

Q Doesn't that—

20

A That makes a good mixture.

Q That is to fill up the road and make the road water-proof?

A Make it tight, yes.

Q And when you make it water-proof, the road won't break up and crack, is that right?

A I have never seen any asphalt yet, that did not break up and crack.

Q Now you laid that road down for the purpose of demonstrating what trapite was?

30

A I did.

Q And you were to lay as good a pavement on the Whitehouse-Lebanon Road as you laid on the Lambertville Road?

A I was.

Q And you were to have the same per cent. of bitumen?

A I was.

Q And the run of the crusher?

A Yes.

40

Robert Montgomery, cross.

Q And your specifications called for the use of sand?

A That is what we understood by that, that is the sand in crushed stone. It is practically the same thing.

Q I ask you whether it did not consist of asphalt, cement and sand of satisfactory grade and grain?

A It did.

10 Q Do you mean that to be the run of the crusher?

A I do.

Q You call that sand, do you?

A I do.

Q Now the trap rock, the run of the crusher, what does that include?

A That is it, and about one inch stone.

Q Does that include the dust?

A Yes—and the dust we put in was to harden the pavement, not for any other purpose.

20 Q The sand was put in for what purpose?

A To fill up the voids, as you suggested a few minutes ago.

Q Then you undertook to construct this road in the same manner, with the same quantity of asphalt as you constructed the piece on the Lambertville Road under that contract?

A In every particular.

Q In every way?

A Yes, sir.

30 Q You say you were present on numerous occasions, while this road was under construction?

A I was.

Q And you had Mr. Hobin in charge of that plant?

A Mr. Hobin and my son, yes.

Q Your son was not there until quite late in the season was he?

A Oh, yes.

46 Q Do you remember when you first placed trap-ite on that Whitehouse road?

Robert Montgomery, cross.

A I do not.

Q Can you approximate the time?

A It must have been nearly the middle of the summer, I should think.

Q Along in August?

A I couldn't say just when.

Q And you think you completed it in December?

A Yes—before December.

Q Well, in December there were defects in this road, were there not? 10

A Very few.

Q You did not think that you had completed the road in compliance with the specifications, did you?

A I did.

Q Didn't you state to the Board of Freeholders to the effect that the road had defects in it, and that you would repair the defects?

A I might have said that if there were any defects I would repair them. 20

Q Didn't you state that there were defects?

A No, I don't think so.

Q Didn't you state to the Board of Freeholders that because of the defects in the road that you did not want them to finally accept it, but to fix a time by which it could be finally accepted, and in the mean time you would repair it as called for in the specifications?

A I could not change the contract.

Q I understand that, but didn't you request that to be done? 30

A I don't remember.

Q Suppose I read to you what you stated to the Board of Freeholders on the 22nd day of—

Mr. Fort. Because it is there it does not follow that he stated it.

Q I ask you whether on the 22nd day of December, 1910, you did not appear before the Board of Freeholders and state to them or request them, to re- 40

Robert Montgomery, cross.

tain ten per cent. of the cost of the construction of the road instead of five per cent. as set forth in the contract?

A I made that request.

Q And for the Board to accept the road as being completed?

A I did.

Q And you stated that there were certain defects
10 being apparent upon the surface of the finish of the road which, in your judgment, and the judgment of state commissioner of public roads, Mr. Gilkyson, could be remedied in the spring?

A There were a few places.

Q Did you state that to the Board?

A I didn't say there were defects.

Q What did you call them?

A I didn't call them anything. I said there were
certain places there that wanted to be repaired.

20 Q You knew of them didn't you?

A I did.

Q What repair did they require?

A They didn't ask for anything at that time.

Q But in your judgment as a road builder?

A Oh, just slight repairs like any pavement.

Q Did you ever know of a pavement that was built
with the first application of your dressing put on in
the middle of the summer that in less than six months
would ravel out?

30 A I know a number of roads.

Q A hot asphalt road?

A Yes, I know a number of them.

Q That was put on with six per cent. bitumen?

A I don't know the percentage.

Q Do you know?

A What is the question?

Q Do you know, with six per cent. of bitumen,
that was built by the state, under state specifications,
that raveled out in six months?

Robert Montgomery, cross.

A Yes, I have seen roads ravel out in six months.

Q Built by the state?

A Built by the state.

Q A hot asphalt road, built under the system of hot asphalt, did you ever see such a road?

A Well, I could not say that. It might be amissite. If you will let me think I might call it to mind. I saw work in Trenton done by the Warrenite people with a hot mixture that went all to pieces and they had to go over it and repair it in the spring. 10

Q Was that done by the city?

A The state, I think, paid the money for it.

Q Do you know what street that was?

A Chambers street; I was there on the work and saw it done.

Q After you were before the Board and said to them as you say you did, the Board met with you, did they not, at Whitehouse Station? 20

A Yes.

Q On the 29th, and went over the road?

A Yes.

Q And you went with them?

A I went with them.

Q At that time, from the Whitehouse end of it until you got to Lebanon, were there not numerous places where the road had raveled out in small spots and in some spots a good deal larger?

A Oh, there were a few places; it did not amount to very much. 30

Q There was sufficient for you to state to the Board of Freeholders that you did not desire them to pay you any more money than they had already paid on the contract, and you were willing they should retain it all until you had completed the road according to the contract, is that right?

A That was not my reason.

Q Well, you stated that to the Board, didn't you?

A I stated other things in connection with that. 40

Robert Montgomery, cross.

Q No. You stated to the Board, didn't you, that because of the defects in the surface of that road—

A I never said there were any defects.

Q The defects were there?

A I didn't say so.

Q Didn't you say you wanted to make the road according to the contract?

10 A I said I wanted to make it good in every particular.

Q And didn't you request the Board of Freeholders to retain the money they already had up to the five per cent.—retain it all, and that all you wanted them to do was to fix a time for the final acceptance of the road, which you would make good the coming year? Is that what you stated?

A Yes, I asked them to accept the road—

20 Q Yes, and didn't you then undertake to make the road in compliance with the contract the following year?

A I did everything I could to make the road good.

Q I asked you whether you did not undertake the contract in 1911?

A The contract was completed in 1910.

Q That is, the road was opened to travel?

A The road was opened to travel.

Q But it was not completed satisfactory to you, was it?

30 A Oh, yes.

Q And it was not completed satisfactory to the state?

A It was in the fall of 1910.

Q Or to the county?

A The state said they would accept it in 1910.

Q By the retention of fifteen per cent.?

A They did not suggest that; I suggested that.

40 Q I call your attention again, then, Mr. Montgomery, to the statements you made to the Board of Freeholders, that you, as the president of the Dela-

Robert Montgomery, cross.

ware Quarry & Construction Company, appeared before the Board of Chosen Freeholders and requested the Board to pass a resolution to accept the road known as the Whitehouse-Lebanon Road, the same having been practically completed, and stated that the state road commissioner stated that the state was willing to accept the road, and requested that ten per cent. of the cost of construction be retained instead of five per cent. Didn't you understand that when you made the statement? 10

A The state wanted the road left over and accepted in the fall, and I think I made the proposition.

Q If it had been completed according to the contract, why didn't you want your entire money?

A There seemed to be a great delay about accepting it.

Q Why wasn't it accepted?

A I cannot tell you. 20

Q As a matter of fact, wasn't it because of these numerous defects in the surface of the road?

A No, sir, there weren't numerous defects there.

Q If there were not defects there, what did you undertake to repair in 1911?

A I was asked to go up there and make repairs under the contract.

Q If the road had been completed and there were no defects, what did you undertake to repair?

A You said defects in 1910. 30

Q Yes.

A This was in 1911 when I repaired the road under my contract for maintenance for a year.

Q That is the reason you did that?

A That is the only reason.

Q You constructed other roads in the county that year, didn't you?

A Two other roads, I think.

Q You were paid in full up to the five per cent. on those roads, weren't you? 40

Robert Montgomery, re-direct.

A Not at once, no.

Q You were not?

A No; I think it was sometime after they were completed before I got my money, a couple of months probably; I do not remember about that.

Q You were compelled to maintain these roads for a year weren't you?

A I was.

10

Q Did you lay any other trapite roads similar to this road?

A I did.

Q And under the same specifications, practically?

A I did, but not under the same conditions.

Q Under the same specifications?

A Yes, but not under the same conditions as this work was laid.

Q What do you mean by that?

20

A I laid trapite on a road that had been down four or five years, and had a perfectly hard surface. This was full of water, and it disintegrated from the bottom, and the water come up when we drove holes in it.

Q You laid the Allenhurst Road the same year didn't you?

A I did.

Q Under the same specifications?

A Yes, sir.

30

Re-direct examination by Mr. Fort.

Q You were asked by Mr. Stout if you knew of any roads that had gone to pieces within six months, or had at least become disintegrated a little on the top of the construction. Were you familiar with the St. George Road at Rahway?

A No, I was not.

Q You don't remember about that?

A No, I did not see that.

40

Robert Montgomery, re-direct.

Q You spoke about water coming up, on your last answer. Were there provisions for underdraining the roads?

A There were.

Q Were they complied with?

A They were.

Q Every provision in this contract for draining the road was provided, was it?

A Everything we contracted for.

10

Q If anything was asked by way of additional drainage by either the engineer or the inspector, what did you do about that?

A I would do it if they asked me.

Q In every case?

A Always.

Q Do you know of anything in the construction of this road in which you failed in any way to comply with the specifications of your contract?

20

A I do not know of anything that was left undone.

Q You say that you were required to maintain this road under your contract—

A For one year, yes.

Q —for one year after it was completed?

A Yes.

Q Did your desire to give to the county here in Hunterdon a satisfactory road have anything to do with your suggestion in regard to this ten per cent. matter?

30

A Yes, I wanted the road to be perfectly all right in every way.

Q You were willing to leave ten per cent. against maintenance instead of five?

A Yes.

Robert Montgomery, re-cross.

Re-cross examination by Mr. Stout.

Q I understood you to say in answer to a question by the governor that the water came up from the bottom and spoiled it?

A That had a great deal to do with it, I thought.

Q Doesn't the specification say that it shall not be affected by the action of water?

A That is the top of the road.

10 Q Does it say the top of the road?

A The top of the road as I understand it.

Q I am reading from page five "Per cent. of bitumen in said asphalt cement shall in no event fall below sixty and shall not be affected by the action of water, oxidize, nor be susceptible to atmospheric influences." Atmospheric influences refers to the top?

A I take it that all refers to the top.

20 Q Whether it came from the top or the bottom, it ought not to affect your asphalt, had it?

A Well, you had better get an asphalt expert to answer that question.

Q You understood that was in your specifications, didn't you?

A Oh, yes, but I did not take it the way you mean; I never understood it that way.

30 Q When you were asked about the defect in the road did you say, in the spring, 1911, to Colonel Stevens, in the presence of Grant Davis, that you only knew of one place of complaint, or one place that was damaged by water, coming from the under side of the road?

A No, I don't remember that, Mr. Stout.

Q Isn't that a matter of fact?

A I don't know.

Q Don't remember having such a conversation as that with Colonel Stevens?

A I remember taking the road up and finding water underneath it.

40 Q In one little place?

Robert Montgomery, re-cross.

A Oh, a dozen places.

Q Could you designate where that was—in the spring of 1911, I mean?

A Yes, it was where the road was very flat.

By Mr. Fort.

Q If the water effects the foundation of the road so that it settles, what effect will it have on the top?

A Make it crack.

10

By Mr. Stout.

Q Did you ever see a crack in this pavement?

A Yes, two or three little places where we repaired it.

Q Cracked?

A I would not say cracked all together.

Q You only saw where it raveled out. Did you ever see a crack in that pavement?

A Yes.

Q Where?

20

A Up near Annandale, or up near Lebanon.

Q And the other places that were defective were because it raveled out?

A I never said there were any places defective.

Q I understand that, but those places you undertook to repair?

A Yes.

By Mr. Fort.

Q The condition of the foundation of which I spoke in my last question would cause the top of the road to ravel or disintegrate?

30

A Yes.

Q Just as well as to break?

A Yes; there isn't asphalt pavement laid that is not susceptible to water. I know that to be a fact.

(At this point a recess was taken until one o'clock in the afternoon.)

Robert Montgomery, re-cross.

After recess.

ROBERT MONTGOMERY, resumes the stand.

By Mr. Fort.

Q As you left the stand you made a statement that was not in answer to any question either by Mr. Stout or myself on the general proposition—you said there is no asphalt laid that is not susceptible to water, that you know that for a fact. What do you
10 mean by that?

A I meant where the water comes up underneath and the asphalt comes down and it cracks it.

Q This road was finished in 1910?

A 1910.

Q December?

A Yes, sir.

Q Or November?

A Yes, sir.

Q This is now 1913. That road has been there two
20 years?

A Three years.

Q What condition is the road in now?

A Very good condition, to-day.

The Court. It has not been down three years.

Witness. No, two years last December.

Q By that you mean that it has been used for two
years?

A Yes.

Q Were you required under this contract to keep
30 it repaired one year?

A Yes.

Q How long did you keep it repaired?

A I repaired it before the year was up; we were very anxious to make a good job there.

Q Why?

A It was a new business with us, and we had been very successful where we had laid it in other places, and we thought we would get more business if we put
40 down a good road.

Robert Montgomery, re-cross.

Q Did that have anything to do with your suggestion about the ten per cent.

Objected to.

Objection sustained.

By Mr. Stout.

Q The matter of repairing to that road in 1911, after you had completed what you call your repair, in the month of September, did you notify the state and the county of your having repaired the road. 10

A I think so.

Q And did you, along with Commissioner Stevens and Mr. Gage and Mr. Shanley, and the members of the Board of Freeholders go over the road?

A Yes.

Q Were not at that time samples of the road taken out in your presence at three stations.

A There were. 20

Q In the matter of repair of that road in 1911, you repaired it with asphalt, didn't you at certain portions?

A All of the work was asphalt.

Q And in every portion of the road you washed it with a very thin coat?

A What we call a squeegee coat.

Q That was for the purpose of making a hard strong surface wasn't it?

A No. 30

Q What was that for?

A That was to benefit the road.

Q About what portion of that road was it that you put the squeegee on?

A A small portion, not very much.

Q And where you put the squeegee was that the points where the asphalt had come off, from your construction of 1909 or 1910?

A It was mostly on the hills, the road was well drained where it stayed. 40

Robert Montgomery, re-cross.

Q And at those points was where you put the squeegee?

A Yes.

Q And at other points you put asphalt?

A The same mixture as I put on originally.

Q You commenced that work in 1911 as near as you can tell?

A June, I think or July.

10 Q And you continued to work on the road until September?

A Yes, sir.

Mr. Fort. Mr. Stout, do you intend to make any question in this case, with relation to the extra work.

Mr. Stout. Not at all.

Mr. Fort. You do not dispute that?

20 *Mr. Stout.* No, sir; under the statement that if we owe you the amount claimed in the declaration in the hands of the county, if we have to pay, that statement is correct, including extra work.

Mr. Fort. I wanted to know if you disputed the extra work at all.

Mr. Stout. I do not.

Mr. Fort. Not in any case?

Mr. Stout. No, sir.

30 *The Court.* That amounts to \$2,309.06, and you make no question about the work being properly done, that is the extra work?

Mr. Stout. No; I understand this extra work consists of the widening of the road. They made the road by special agreement, a little wider than the specifications called for, and made it from curb to curb. I understand that to be the fact.

By Mr. Fort.

40 Q You say you repaired this work with asphalt? Why?

Robert Montgomery, re-cross.

A I was requested to do it by the Board and also Colonel Stevens.

By Mr. Stout.

Q You were not requested to repair it with asphalt, were you?

A Yes, I think I was to make the necessary repairs.

Q Now, in 1911, didn't you go with the State Road Commissioner, Mr. Stevens, and the State Engineer, Mr. Meeker, and go over the road, and didn't he direct you that the road should be built in accordance with the specifications and that you should use your judgment as to what was necessary? 10

A No, he did not direct me anything of the kind.

Q And didn't you tell him how you thought you would repair it, and he said to you that you would have to determine whether that was the proper way to repair it? 20

A I do not remember all the conversation. I remember Colonel Stevens saying to his supervisor that he was not to interfere or offer any suggestions.

Q Yes, that you were to repair the road according to your judgment and make it comply with the specifications. Didn't you understand that to be the situation?

A I could not say about that. I have a letter or two from Colonel Stevens asking me about this.

Q You do not mean to say to this court that either the Board of Frehoelders, or Colonel Stevens directed you to place asphalt on that road? 30

A What else would I put on there?

Q I don't know. But they did not direct you to put asphalt on.

A They didn't give me any directions at all.

Q They left it to you to repair it?

A I repaired it and tried to make the best job possible. 40

Richard M. Montgomery, direct.

RICHARD M. MONTGOMERY, sworn for the plaintiff.

Direct examination by Mr. Fort.

Q You are the son of the last witness?

A Yes, sir.

Q And you were at this work in the building of this Lebanon road?

10 A Yes, sir.

Q What part of the work did you have charge of?

A I had charge of mixing the asphalt and stone.

Q The specifications require of what the mixture shall consist. Were you familiar with those?

A Yes.

Q The asphalt cement was to be of refined asphalt and fluxed. How about that?

A Yes.

Q Was that done?

20 A I believe that was the way the asphalt came from the plant.

Q Did you do that?

A No.

Q It came from the plant all ready for heating?

A Yes.

Q Did you see to the heating?

A Yes.

Q Was it heated according to the requirements as to temperature?

30 A It was heated in the boilers, yes sir.

Q Now, sand of satisfactory grade and grain, what about that?

A The sand was the stone dust that is in the stone from the run of the crusher.

Q And that was what you used?

A Yes.

Q Is that what you understood these specifications to mean?

A Yes, sir.

Richard M. Montgomery, direct.

Q There was to be a filler consisting of finely powdered mineral material. Do you know what that was?

A That was lime stone, yes.

Q Was that powdered?

A Yes.

Q Then there was to be trap rock, run of the crusher up to one inch?

A Yes.

10

Q How about that?

A That was put in.

Q In making the material to be used in the building of the road, the mixture, who did that?

A I had a man by the name of Roach on the mixer and I was up there myself, mixing.

Q Did you notice the quantities and character of the material?

A Yes, sir, I set the scales.

Q And how did you do the work, with regard to the contract, the requirement of it?

20

A Well, the amounts of the stone and asphalt was not given, only the different materials that went into the same mixer, the size of the stone, run of the crusher, to one inch, and the stone dust and the asphalt cement all mixed together.

Q And that produced what you call—

A Trapite.

Q The asphalt cement?

A No, the mixture.

30

Q Was the engineer of the county and the inspector of the state there while you were doing this work?

A Yes.

Q Did they examine the work as you were doing it?

A They were never on the plant; they were on the road where it was laid.

Q Did they see the material that was produced to be laid on the road?

40

Richard M. Montgomery, cross.

A Yes, sir.

Q What complaint did they make of the character of it?

A No complaint at all.

Q At no time?

A No, sir.

Q Now as to the sample road, down at Ringoes, who had charge of the mixer there?

10 A It was my father, Mr. Brackett, and a colored man they had there on the platform.

Q You did not have charge of that?

A No, sir.

Q Did you make the mixture at the Allenhurst road?

A Yes, sir, I worked about six or eight weeks at Allenhurst.

Q What was the character of the mixture there as compared with this?

20 A The same mixture exactly.

Cross examination by Mr. Stout.

Q When did you go on the Whitehouse-Lebanon road?

A I don't remember the date.

Q As near as you can tell?

A I don't know.

Q When did you quit there?

A I don't know when I quit.

30 Q How long were you there all together?

A I was there off and on from when the job started until it finished, and the longest space of time I was there was about six weeks, that is every day for six weeks.

Q Were you running the trapite plant for six weeks?

A Yes.

Q Now, where did you get your instructions as to the quantity of asphaltum cement, etc.?

40 A From the Allenhurst job.

Richard M. Montgomery, cross.

Q Had you been on the Allenhurst job before that?

A Yes, sir.

Q Were you given instructions to build the road like the Allenhurst road, the same mixture?

A The same thing.

Q And you endeavored to do it?

A Yes.

Q You used the same quantity of asphaltum cement? 10

A Yes.

Q And the powdered material called sand?

A Yes.

Q And the trap rock, the run of the crusher?

A The powdered material was not called sand; it was lime stone dust.

Q You used the same quantities in the making of this trapite for the Whitehouse-Lebanon road that you did for the Allenhurst road? 20

A Yes, sir the same quantity and amount.

Q Were you given any formula for the mixture to be compared with the Ringoes road?

A It was all mixed the same.

Q Were you given instructions to make the same mixture for the Whitehouse-Lebanon that you were for the Ringoes road?

A Yes.

Q Did they tell you the proportion of asphalt cement to use? 30

A Yes.

Q What was it?

A Ninety pound asphalt.

Q How about stone?

A A thousand stone.

Q Does that include your filler?

A No, sir.

Q How much filler?

A One bag of filler. 40

Richard M. Montgomery, cross.

Q What was the weight of the filler?

A I don't know the weight of the filler; it come measured.

Q You say that no complaint was made to you either by the inspector or the engineer while you were placing this trapite on the road?

A No, sir.

10 Q When it was taken from your plant to be placed on the road could they tell?

A Could they tell what?

Q As to the mixture, asphaltum, filler and rock, and quantities and pounds?

A I don't know whether they could or not.

Q Do you think they could?

A You mean by looking in the wagon, to tell what was in it?

20 Q Yes, and when you placed it on the road for rolling, the quantities per square yard?

A I do not think they could because they never saw any weighed.

Q The matter of the preparation of this trapite, as to complying with the specifications, as fixed by the Lambertville road and the Allenhurst road was up to the contractor, and not as you understood it, to the inspector or the county engineer?

A It was to be mixed the same as Allenhurst.

Q And that was up to you and the mixer?

30 A Yes, sir.

Q And you assisted in the construction of the Allenhurst road, did you not?

A Yes, sir.

Q And you had considerable experience with this trapite; you had experience in making this mixture?

A Yes.

Q Now, I ask you again could either the engineer or the inspector of the road tell whether you had the proper quantities when you placed it on them?

40 A They could if they knew anything about it.

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Q Do you know whether they knew anything about it?

A I don't know that.

Q You told them it was all right, didn't you?

A No, sir.

Q Didn't you tell Mr. Davis?

A No, sir.

Q Didn't you tell Mr. Higgins you were mixing it according to the formula? 10

A No, sir.

Q And they did not ask you?

A No.

Q And they were depending on you for a proper mixture?

A They didn't say anything to me about it.

Q No fault was found?

A No, sir.

PLAINTIFF RESTS.

20

(Mr. Stout opened for the defendant.)

(Mr. Stout read from the minutes of the Board of Chosen Freeholders of Hunterdon County, as follows:

Minutes of November 16, 1909.

The Board of Chosen Freeholders met in its rooms in the Bloom building at ten o'clock A. M. in special session for the purpose of receiving bids pursuant to notice given The Engineering Record of New York City and the papers of Hunterdon County, for the construction of roads as follows: 30

* * * * *

2d. Being for a road known as the Whitehouse-Lebanon Road, beginning at the intersection with the present macadam road known as the Whitehouse-Flemington Road, extending over the Eastern Turnpike to the village of Lebanon 40

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and running through the townships of Readington and Clinton, a distance of 23,050 feet or 4.366 miles * * *

Present, director John W. Sharp, A. W. Muirheid and Morris P. Eick.

10 There being a large number of bidders and others present, the director stated the object of the meeting and requested all persons desiring to bid for the construction of said roads to hand their bids to the clerk in sealed envelopes, having written plainly on the outside thereof the name of the road on which the bid was made.

After all bids were presented by those present who desired to offer bids, the same were publicly opened and read as follows:

* * * * *

WHITEHOUSE-LEBANON ROAD.

20 Van Keuren & Son, Newark, N. J. (oil),
\$43,162.35
With Warrenite\$1.55 per sq. yd.
Concrete foundation 1.70 per sq. yd.
B. M. Shanley Sons Co., Newark, N. J.,
(oil)\$41,806.34
With Warrenite\$1.50 per sq. yd.
Delaware River Quarry & Construction
Co., Lambertville, N. J. (oil)\$39,381.13
30 Plain 35,696.03
Trapite 51,173.45
With Amesite\$1.25 per sq. yd.
John Ginder, Trenton, N. J. (oil)\$40,677.88
With Warrenite\$1.35 per sq. yd.
Bushkill Quarry & Construction Co.,
Easton, Pa. (oil) \$40,874.86
With Amesite\$1.50 per sq. yd.

* * * * *

40 After opening and reading the above bids publicly, the directors stated that the Board would

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go into secret session for fifteen minutes with County Engineer Grant Davis. At the expiration of fifteen minutes the Board announced that they would take the bids presented and read under consideration and announce the decision as to letting the roads on Thursday, November 18th, at eleven o'clock, A. M.

Moved and seconded that the Board adjourn until Wednesday, November 17th, at ten o'clock.

10

Minutes of November 17, 1909.

The Board of Chosen Freeholders met in special session at ten o'clock for the purpose of going over the bids presented for the construction of the various macadam roads in the County of Hunterdon, which bids were received at special meeting held November 16th, and after carefully going over the bids for the different roads, together with the stone and material to be used in the construction of said roads, and the Delaware River Quarry & Construction Company of Lambertville, N. J., having bid the sum of \$51,173.45 for the construction of the road known as the Whitehouse-Lebanon Road, the same to be in conformity with the specifications for trapite, and it being the lowest bidder, and the said bid being in the judgment of the said Board a very reasonable bid, the following motion was made:

20

Moved by Mr. Muirheid that the contract for the construction of macadam road with trapite, beginning at the intersection with the present macadam road known as the Whitehouse-Flemington Road, extending over the Easton Turnpike to the Village of Lebanon running through the Township of Readington and Clinton a distance of 23,050 or 4.366 miles be awarded to the Delaware River Quarry & Construction Company of Lambertville, N. J., a corporation incorporated

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40

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10 under the laws of the State of New Jersey, for the sum of fifty-one thousand one hundred and seventy-three dollars and forty-five cents (\$51,173.45), it being the lowest bidder for the construction of said road; and that the director John W. Sharo be authorized to sign and execute the contract with the Delaware River Quarry & Construction Company on the part of the Board of Chosen Freeholders, and forward the same when properly executed to State Road Commissioner Frederick Gilkyson for his approval; and that the said Delaware River Quarry & Construction Company be required to enter into a bond with the Board of Chosen Freeholders in the sum of fifty-five thousand dollars (\$55,000.00) as surety conditioned for the faithful performance of the contract according to plans and specifications for the construction of said road with trapite as heretofore made and approved by the Board of Chosen Freeholders and State Commissioner Frederick Gilkyson.

20

Motion seconded by Mr. Eick.

Motion being put, the yeas and nays were called. Yeas, Sharp, Muirheid, Eick.

There being three votes in favor and none against, Director declared the motion carried.

* * * * *

30 Minutes of December 16, 1909.

* * * * *

The following resolution was offered:

Whereas, on the eighteenth day of November, 1909, the Board of Chosen Freeholders of the County of Hunterdon awarded a contract to the Delaware River Quarry & Construction Company, a corporation incorporated under the laws of the State of New Jersey, for the construction and permanent improvement of the public road known as the Whitehouse-Lebanon Road, begin-

40

Minutes of December 16, 1909.

ning at White House at the intersection with Whitehouse-Flemington macadam road, and extending to Lebanon over what was formerly the New Jersey and Easton Turnpike, a distance of 23,050 feet, or 4.366 miles of trapite, according to the plans and specifications attached to and made a part of said contract, for the sum of \$51,173.45 which contract was presented, properly executed, together with a bond of the Delaware River Quarry & Construction Company for the faithful performance and fulfillment of said contract, to State Road Commissioner Frederick Gilkyson for his approval, and

Whereas the said contract now being in the hands of State Road Commissioner Frederick Gilkyson, and not being approved by him for the construction of said road from the material known as trapite, the same not having been generally used throughout the State, and in order to test trapite as a proper material to construct the Whitehouse-Lebanon Road, state road commissioner has agreed to pay the County of Hunterdon the sum of one thousand dollars (\$1,000) with which to cause a piece of trapite to be laid by the Delaware River Quarry & Construction Company on the road known as the Ringoes-Lambertville Road, at a point on said road to be designated by the Board of Chosen Freeholders, and if said trapite shall stand the test of winter's use, and prior to the time when the construction of said Whitehouse-Lebanon Road should be in progress, that said trapite so laid should be a proper material for the construction of said road in the judgment of State Road Commissioner Gilkyson, County Engineer Grant Davis and the Board of Chosen Freeholders, then said contract shall be approved, otherwise the method of construction of said road shall be determined by all parties concerned, and

Minutes of December 16, 1909.

10 Whereas, the Board of Chosen Freeholders having selected a point on the Ringoes-Lambertville road in West Amwell Township, near the premises formerly owned by Geo. W. Arnett, upon which the sample of trapite, manufactured by the said Delaware River Quarry & Construction Company, shall be placed and rolled in proper shape and condition, and when finished to be according to the plans and specifications set forth in a contract made and entered into between the County of Hunterdon and the Delaware River Quarry & Construction Company, on the eighteenth day of November, 1909, therefore

20 Be it resolved, that the offer of State Road Commissioner Frederick Gilkynson, to donate to the County of Hunterdon one thousand dollars for the purpose of having placed on the Lambertville-Ringoes road a sample of trapite manufactured by the Delaware River Quarry and Construction Company, be accepted, and that the Delaware River Quarry and Construction Company is hereby authorized to place upon the Ringoes-Lambertville road at a point in West Amwell Township near the premises formerly owned by Geo. W. Arnett, a sample of trapite manufactured by said company, and to place and roll the same in proper shape and condition, and
30 when finished to be according to the plans and specifications set forth in the contract for the construction of the Whitehouse-Lebanon road, made and entered into between the Board of Chosen Freeholders and the Delaware River Quarry and Construction Company on the 18th day of November, 1909, and

40 Be it further resolved, that in case in the judgment of State Road Commissioner Frederick Gilkynson, County Engineer Grant Davis and the Board of Chosen Freeholders, the trapite so

Minutes of December 16, 1909.

placed upon said road after a winter's use, is determined to be a fit and proper material from which to construct the Whitehouse-Lebanon road then the contract now in the hands of State Road Commissioner Gilkyson to be approved by him, otherwise said road to be constructed in some other manner designated in said specifications, to be determined upon by the Delaware River Quarry and Construction Company, the Board of Chosen Freeholders and State Road Commissioner Frederick Gilkyson, and 10

Be it further resolved, that a contract setting forth the above conditions shall be entered into between the Board of Chosen Freeholders of the County of Hunterdon and the Delaware River Quarry and Construction Company.

Moved and seconded that the above resolution be adopted. 20

Yeas, Sharp, Muirheid, Eick.

Motion carried and resolution adopted.

Supplemental agreement between the Board of Chosen Freeholders of the County of Hunterdon and Delaware River Quarry and Construction Company.

This agreement made the sixteenth day of December in the year of our Lord one thousand nine hundred and nine, between the Board of Chosen Freeholders of the County of Hunterdon, party of the first part, and the Delaware River Quarry and Construction Company, a corporation incorporated under the laws of the State of New Jersey, whose principal office is at 26 Exchange Place in the City of Jersey City, party of the second part, WITNESSETH, that for and in consideration of one dollar and other considerations thereunto moving, the said party of the sec- 30 40

Minutes of December 16, 1909.

ond part doth covenant and agree to and with the party of the first part as follows:

10 That on the eighteenth day of November in the year of our Lord one thousand nine hundred and nine, the party of the first part and the party of the second part did enter into an agreement one with the other for the construction and permanent improvement of the public road known as the Whitehouse-Lebanon road, beginning at Whitehouse at the intersection with the Whitehouse-Flemington macadam road and extending over what was formerly the New Jersey and Easton Turnpike, through the Townships of Readington and Clinton, to Lebanon a distance of 23,050 feet or 4.366 miles, of trapite, according to the plans and specifications attached to and made a part of said contract, for the sum of fifty-one thousand one hundred and seventy-three dollars and forty-five cents (\$51,173.45) which said contract was presented, properly executed, together with the bond of the Delaware River Quarry and Construction Company for the faithful performance and fulfillment of said contract, to State Road Commissioner Frederick Gilkyson for his approval.

20

30 That said contract has never been approved by Frederick Gilkyson, it having been agreed by and between the party of the first part and the party of the second part that the party of the second part would place upon the macadam road known as the Ringoes-Lambertville road, at a point in West Amwell near the premises formerly owned by George W. Arnett, a sample of trapite manufactured by the party of the second part, and to place and roll the same in proper shape and conditions, and when finished to be according to plans and specifications set forth in the contract made and entered into between the parties of the

40

Minutes of December 16, 1909.

first and second part on the eighteenth day of November, 1909.

It is agreed by and between the parties hereto that if, after the placing of the trapite upon said Ringoes-Lambertville road at a point herein designated and after a test of winter's use upon the inspection by State Road Commissioner Gilkyson and the party of the first part, it is determined to be a proper material of which to construct the Whitehouse-Lebanon road, and the contract heretofore made and entered into between the parties hereto is approved by State Road Commissioner Frederick Gilkyson that said road shall then be constructed according to said contract. 10

It is agreed by the party of the second part to and with the party of the first part, that in case State Road Commissioner Gilkyson and the party of the first part shall determine that after a test of winter's use and prior to the time when the construction of said road should be in progress, that trapite should not be the proper material for the construction of said Whitehouse-Lebanon road, that it, the party of the second part, agrees to enter into a contract with the party of the first part to construct said Whitehouse-Lebanon road with asphaltum binder for the sum of thirty-nine thousand three hundred and eighty-one dollars and thirteen cents (\$39,381.13) according to the plans and specifications upon which said bid is made, and to which said bid said contract for the construction of trapite is attached, and now in the possession of State Road Commissioner Gilkyson. Said party of the second part agrees to enter into a bond for the faithful performance of said contract for the construction of said road according to plans and specifications. 20 30 40

Minutes of December 16, 1909.

In witness whereof the Director of the Board of Chosen Freeholders of the County of Hunterdon, by authority of a resolution of said Board, hath hereunto set his hand and affixed the corporate seal of the said board, and the said party of the second part hath set its hand and affixed its corporate seal the day and year first above written.

10

(Signed) JOHN W. SHARP, (L. S.)

*Director of The Board of Chosen
Freeholders of the County of
Hunterdon.*

(Signed) DELAWARE RIVER QUARRY
AND CONSTRUCTION COMPANY,

R. A. MONTGOMERY,
President.

20

Signed, sealed and delivered in the presence of

(Signed) F. A. DALRYMPLE,
Clerk.

Attest:

JOHN F. SHANLEY,
Acting Secretary.

Approved April 8, 1910.

30

FREDERICK GILKYSON,
Commissioner of Public Roads.

Minutes of December 16, 1909.

STATE OF NEW JERSEY, }
COUNTY OF HUNTERDON. } ss.

Be it remembered that on this twenty-first day of December in the year of our Lord one thousand nine hundred and nine before the subscriber, one of the Master of the Court of Chancery of New Jersey, personally appeared John F. Shanley, he being by me duly sworn according to law on his oath says, that he is the Acting Secretary of the Delaware River Quarry and Construction Company, a corporation incorporated under the laws of the State of New Jersey, and knows its corporate seal; that the seal affixed to the foregoing contract is the true corporate seal of the said company and that the same was so affixed and the said contract signed by Robert A. Montgomery, president of said company, in the presence of deponent by order of the Board of Directors of said Company, and that deponent thereupon affixed his name thereto as subscribing witness. 10 20

JOHN F. SHANLEY.

Sworn and subscribed to before
me this 21st day of December,
A. D. 1909.

SPENCER WEART,

Master in Chancery of New Jersey.

30

Minutes of December 16, 1909.

STATE OF NEW JERSEY, }
COUNTY OF HUNTERDON. } ss.

10 Be it remembered that on this sixteenth day
of December in the year of our Lord one thou-
sand nine hundred and nine before the sub-
scriber, one of the Masters in the Court of Chan-
cery of the State of New Jersey, personally ap-
peared Frederick A. Dalrymple, who being by
me duly sworn according to law on his oath says
that he is the clerk of the Board of Chosen Free-
holders of the County of Hunterdon, a body po-
litic, created under the laws of the State of New
Jersey, and knows its corporate seal; that the
seal affixed to the foregoing contract is the cor-
porate seal of said County; that the same was
so affixed and the said contract signed by John
W. Sharp, Director of the said Board of Chosen
20 Freeholders, and as the voluntary act and deed
of the said Board of Chosen Freeholders, and
that the deponent thereupon affixed his name
thereto as subscribing witness.

F. A. DALRYMPLE.

Sworn and subscribed to this
16th day of December, A. D.
1909.

30 H. L. STOUT,
M. C. C. of N. J.

Minutes of December 22, 1910.

Minutes of December 22, 1910.

* * * * *

Robert A. Montgomery, president of the Delaware River Quarry and Construction Company, appeared before the board and requested it to pass a resolution to accept the road known as the Whitehouse-Lebanon, the same having been practically completed, and stating that State Road Commissioner Gilkyson desired that the road be accepted and that the State was willing to accept the road, the request that 10% of the cost of the construction be retained instead of 5%, as set forth in the contract, desiring the Board of Chosen Freeholders to pass the resolution to accept the same and to set forth in said resolution that the road being completed according to plans and specifications, but certain defects being apparent upon the surface or finish of said road, which in the judgment of the contractor and State Road Commissioner Gilkyson, can be easily remedied in the early part of next season. The matter was discussed by the Board of Chosen Freeholders, the same not having been viewed by it, and it was regularly moved and seconded that the matter of acceptance of the Whitehouse-Lebanon road be deferred until Thursday, the 29th day of December, at which time the Board will meet at Weinrebe Hotel in the village of Whitehouse Station and proceed to inspect the road with County Engineer Grant Davis.

* * * * *

Minutes of December 29, 1910.

The Board of Chosen Freeholders met at Weinrebe Hotel with County Engineer Grant Davis and Road Supervisor I. J. Higgins and Robert A. Montgomery, president of the Delaware River Quarry & Construction Company, and went over the road lately constructed by the Delaware River

Minutes of December 22, 1910.

Quarry & Construction Company from White House Station to Lebanon.

The road appeared to be completed as required by the plans and specifications, but there appeared in numerous places certain defects with the finish or surface of the road, the same having been picked up and ruffled out, in some instances large patches and in many instances small patches.

Upon the arrival of the Board of Chosen Freeholders with County Engineer Grant Davis, Supervisor Higgins and Robert A. Montgomery at Lebanon, in addition to the apparent defects in the surface of said road, certain persons stated that at a point in the road opposite the mill, near George Clark's the road did not contain the required quantity of material. The Board of Chosen Freeholders, the other gentlemen above named, together with Mr. Newton Ramsey, Eurastus W. Sutton and David Rinehart, citizens and taxpayers in the Township of Clinton, went to the point designated, with a pick and tested the road by picking a hole in the center at a point mentioned, and found that the quantity instead of rolling to less than required by the specifications, to wit: 6 inches, there was found more than sufficient top course and ballast, the depth of the same being rolled to $7\frac{1}{2}$ inches. The persons present inspected the measurement and found $7\frac{1}{2}$ inches to be correct.

Mr. Newton Ramsey then stated that Mr. Conover, living along the road below Van Syckle's, had said at one point near his premises there had been put on material to the depth of 8" and near that point they had made the quantity not more than 4". The gentlemen present, with the exception of Mr. Rinehart and Mr. Ramsey went to the Conover premises, asked what was said in

Minutes of December 22, 1910.

reference to the road, it was deemed by all present that the road was practically completed, and that it was believed that the road had placed upon it the quantity of material as specified in the contract and specifications.

It was then stated to them that the contractor was willing upon the acceptance of the road to have the county retain 15 per cent of the contract price to insure the final completion of said road in one year from the date of acceptance, that his plant at that point was expensive, and would require the retention of the plant until the road was practically completed at the end of the year from the date of acceptance, and that his only desire was to give to the public a good road and in strict conformity and compliance with the plans and specifications, and that the road would be put in that condition and that there was so little money yet due from the 20 per cent. having been retained from payments made, that the retention of 15 per cent., together with his bond would insure the removal of the defects as they now appear.

It was also stated that to accept the said road by the Board of Chosen Freeholders would be of no advantage to the county, inasmuch as the county have several notes outstanding for money borrowed with which to make payment on said road, and that the money which would be received from the State for its share or portion would enable the county to practically liquidate its indebtedness at the present time, and it was stated that State Road Commissioner Gilkyson was willing to accept the road on the part of the State by the retention of more than 5% as required by the contract upon the acceptance of the road.

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After a full discussion of the matter the following resolution was offered:

10 Whereas, the road beginning at the intersection of macadam road running through Whitehouse Station on the Easton and New Brunswick Turnpike, and running over said turnpike through the townships of Readington and Clinton to a point in the village of Lebanon, having been completed under the contract for the construction of said road, and

20 Whereas, State Road Commissioner has expressed his willingness to accept said road by the county of Hunterdon retaining more than the 5% required to be retained upon the acceptance of the road under the contract, because of certain defects being apparent in the surface or finish of said road, but believing that the quantity of material required was placed in said road and the apparent defects in surface or finish of the same not being detrimental to the road or roadbed itself, and

30 Whereas, believing the county to be secured by the retention of 15% of the cost of construction of said road and the bond of the contractor the Delaware River Quarry & Construction Company, attached to said contract, and that said road should be properly constructed and to repair all defects now appearing or that may appear within one year from the date of the acceptance of the road, and that it, the Delaware River Quarry & Construction Company will keep said road in repair for one year from the date of acceptance, and

Whereas, in the judgment of the Board of Chosen Freeholders under the verbal acceptance of the State Road Commissioner Gilkyson and the certificate of I. H. Higgins, Supervisor, and

Minutes of December 22, 1910.

Grant Davis, County Engineer, that the road is completed,

Wherefore be it resolved, that the Board of Chosen Freeholders accept the road beginning at the intersection with the road known as the Flemington and Whitehouse Road, where the same leaves the Easton and New Brunswick Turnpike, and running through the townships of Readington and Clinton, ending in the village of Lebanon, in the township of Clinton, and 10

Be it further resolved, that the Board of Chosen Freeholders pay to the Delaware River Quarry & Construction Company the balance due to it under the contract for the construction of said road, less 15%, which is to be retained by the county for one year from this date, when the road is to be inspected for final acceptance, and if the same has been kept in repair by the Delaware River Quarry & Construction Company and is in all respects in full compliance with said contract, the same to be accepted and the fifteen per cent. paid to the Delaware River Quarry & Construction Company. 20

Moved and seconded that the above resolution be adopted.

Yeas: Eick and Muirheid. Nays: Sharp.

Motion carried and resolution adopted. 30

Edwin A. Stevens, direct.

COLONEL EDWIN A. STEVENS, sworn for the defendant.

Direct examination by Mr. Stout.

Q You are the state commissioner of public roads of New Jersey?

A Yes, sir.

Q And you were in the year 1910?

10 A No, sir.

Q 1911?

A February, 1911.

Q Your attention was called to the Whitehouse-Lebanon road in this county?

A Yes, sir.

Q Did you meet with Mr. Montgomery, the president of the Delaware River Quarry and Construction Company on the Whitehouse road?

A Yes, sir.

20 Q When was your first meeting as you recall it?

A April, 1911, I think it was, may be the end of March.

Q Who was with you?

A Mr. Meeker, the state supervisor; Grant Davis, the county engineer; one of my sons was with me too, I believe that day.

Q Was that the first visit you had made to the road?

A No, sir.

30 Q What condition did you find the road in on that date?

A I found the top raveled in a number of places.

Q What was said by you to the contractor or by the contractor to you about that raveled condition?

A I told the contractor the road was in no condition to accept, and he suggested giving it the penetration treatment, and wanted to know as to whether that would be satisfactory.

40 *By the Court.* What do you mean by that.

Edwin A. Stevens, direct.

The Witness. He wanted to know whether he could spray hot asphalt oil on the surface and penetrate the material that was there with that. That is mixing the asphalt and stone on the road instead of mixing them separately and hauling them on the road. And I told the contractor that it was up to him to see that the road should comply with the specifications in such manner as he should see fit, under the specifications. 10

Q Did he say to you how he would repair it and what he would do?

A No; he told me he was going to think it over. He did not tell me at that time.

Q When next did you visit the road?

A Oh, I visited it a number of times in 1911. I suppose probably six or eight times while the work was going on on it. I recall one instance in June.

Q Can I refresh your memory by showing you a letter? (Showing witness paper.) 20

A Yes.

Q What date was that in June?

A June 5th. I went on the road subsequent to that. That is the date I recall.

Q What did you find?

A I found they were working on the road with a comparatively small force of men; it had been increased over the number named in that letter. I think he had about fifteen or twenty men on the road; but the patches, the raveling, had extended to a very much greater extent than it was in April. 30

Q Did you get notice from the contractor that the road was repaired?

A I do not remember ever getting notice from him.

Q Did you go there on the road after it was repaired?

A I think I got notice from Mr. Davis that the contractor claimed that the road was finished and I went over there and took samples of the road. 40

Edwin A. Stevens, direct.

Q Who did you meet?

A On the road?

Q Yes.

A Mr. Shanley, and Mr. Montgomery, and I think Mr. T. was there; Mr. Montgomery and Mr. Davis and I think Mr. Meeker and Mr. Vail went with me and Mr. Gage.

10 Q Were there samples taken from the road at that time?

A Yes, sir.

The Court. When was this?

A In September.

Mr. Stout. 1911?

The Court. The road was claimed to be completed in December, 1910, and the year would expire in December, 1911?

Witness. Yes, sir.

20 Q He undertook to repair the road in 1911?

Mr. Fort. He was required to keep it, maintain it, for a year.

The Court. And the contractor claimed it was finished in December, 1910.

The Witness. At that time, I did not so understand it. I understood the road was being put up to me for first acceptance.

The Court. When you were there you had not accepted it?

30 *The Witness.* No, sir; I never accepted it.

Q Have you accepted it yet, Colonel Stevens?

A No, sir.

Q Your first visit to the road was for the purpose of inspection and acceptance was it not?

A Yes, sir.

Q And then the contractor—

40 A Excuse me. That is the first visit I have testified to. I visited it once before, at a date sometime in March.

Edwin A. Stevens, direct.

Mr. Fort. That is what you said.

The Witness. I have not testified as to March. I went there alone, and then I went in April with the contractor and again in June, and again in September with the contractor. When I was there in June. I do not believe the contractor was there.

The Court. What visit was made there with the idea of accepting the road if it complied with the conditions? 10

Witness. Both April and September.

Q On your visit in September, were samples taken of the road?

A Yes, sir.

Q Do you know the stations from which the samples were taken?

A I remember station 20, 111, 112, and 156—I think they are the numbers—I am positive about 20. 20

Q I show you a paper.

A That is the one.

Q What is the date in September?

A September 18th.

Q Just state the stations from which you saw samples taken?

A 20, 26, 49, 56, 111, 120, 112, 129; I think we have another from 156, but that was on another date, I am not positive about that; Mr. Gage would have that. 30

Q In whose presence were these samples taken?

A Mr. Shanley and Mr. Montgomery and Mr. Sharp were there, and Mr. Davis and Mr. Gage and Mr. Vail and myself.

Q What was done with those samples?

A They were turned over to Mr. Gage for analysis.

Q Who turned them over?

A I did.

Q When? 40

Edwin A. Stevens, direct.

A At that time.

Q Were they marked?

A Yes, some in my handwriting and some in Mr. Gage's, and I told Mr. Gage to keep the custody of them.

Q They were marked in your presence, either by you or Mr. Gage?

10 A Yes.

Q Did you receive a report from Mr. Gage upon the analysis?

A I did.

Q And after receiving that report, did you accept the road?

A No, sir.

Q How recently have you visited the road?

A In the month of January.

Q Of this year?

20 A Yes, I should think about the 20th; between the 20th and 25th of January.

Q What have you to say about the condition of the road at that time?

A It was not at all satisfactory.

Q What is the trouble with it?

30 A The new coating is peeling off, and the shoulders have all washed away. I visited the road once—during last summer, and found a gang of men at work on the shoulders, and I stopped to find out who they were working for, and found they were working for the county.

The Court. What do you mean by the shoulders?

40 *Witness.* The dirt strips along the trapite pavement, that is what holds the pavement in; but in this case they are about five or six feet wide. The road has been very slippery; there is great complaint about the slipperiness of the road and the farmers have been using the shoulders to drive on instead of driving on the road.

Edwin A. Stevens, direct.

Mr. Fort. You do not know anything about that yourself. I object to what the farmers told him.

The Witness: When I was there the shoulders were badly worn both by travel and by the weather.

Q After January, did you visit the sample of road placed on the Ringoes road? 10

A Yes.

Q When was that?

A I think that was the end of January.

Q What condition did you find that road in?

A Fair condition for a road of its age.

Q Were there or not any samples taken from that road at that time?

A Yes, there were.

Q What became of them?

A They were turned over to Mr. Gage for analysis. 20

Q Who turned them over to him?

A I did.

Q Were they marked before they were turned over?

A They were.

Q Can you explain to the court the difference in the surface of the Ringoes road and the Whitehouse road in January, 1913?

A I don't quite understand the question. 30

Q Can you explain the difference, if there was any?

A Exteriorally, there isn't very much difference in the matter of appearance.

Q Is the Whitehouse-Lebanon road raveled?

A It is just beginning; the upper coating that was put on is loosening up from the surface; it shows its defects in places. On the Ringoes-Lambertville road there has been some little changes in the surface of the 40

Edwin A. Stevens, cross.

material. Judging from the exterior appearance there isn't such a great difference in the roads; the difference lies below the surface.

Q What, in your judgment, should be the life of a properly constructed asphalt pavement, such as called for in this contract?

A Don't ask me.

10 Q You don't know?

A No.

Cross examination by Mr. Fort.

Q Do you know the character of the foundation upon which the Ringoes road was laid?

A No, sir; it seems to be satisfactory.

Q Do you know whether it was an old road that has been there for some years, and the foundation well settled, upon which the trapite top was put?

A I would have to judge from public records.

20 Q You don't know personally?

A No, sir; I know the records would show it.

Q When you are speaking of the trapite part, are you not speaking of the top coating which is the two inches put upon the top of the macadam?

A Yes, sir.

Q Are you criticizing the character of the macadam that was put in this road, the four and one-half inches, built below the trapite?

30 A I have not examined that. The only thing there is they used too much binder on the ballast course.

Q That is a matter of opinion, of course?

A Well, that is what gave rise to all the talk about the road being shy in depth; a number of people went out and sampled the road and struck the dirt and thought they were at the bottom of the road, whereas it was four inches below that.

Q That was put there by the specifications, as a fact?

Edwin A. Stevens, cross.

A No, the specifications say it shall be removed, and they haven't done it; it requires the second binder, shall be removed before the sand course is applied.

Q How do you know it is not removed?

A Because I find it there when I dig down.

Q You never saw this road during the time it was in process of construction?

A I think it was in process of construction all during 1911. If you mean the original construction, no; my experience dates from February, 1911. 10

Q And the construction you saw or knew about was that which you claim was made for the purpose of repairing what you call defects?

A Yes, sir.

Q That was on top?

A That was on the first two inches.

Q Then you found no objection to the depth of the road?

A No, sir; there is more there than is called for. 20

Q The thickness of the trapite top, two inches was there wasn't it?

A In some places it is impossible to tell where the second course ends and the trapite begins, but there is more than six inches of stone on the road all over.

Q There is more material there then, than the contractor was required to put there?

A Yes.

Q That applies to the whole road? 30

A Some places we examined it we found more than six inches depth.

Q Where you visited this road in January it had been used for over two years hadn't it?

A Yes.

The Court. That is last January?

The Witness. Yes, sir, 1913.

Mr. Fort. That is when he found the condition of the shoulders and the condition of the coating falling off. 40

Edwin A. Stevens, cross.

Q Is it an unusual thing for the shoulders of a road to be washed away?

A Oh, no, sir, it is very usual.

Q And it might be expected after a period of two years, might it not?

A It certainly would wash, unless some one took care of it.

10 Q It would be washed unless some one took care of it?

A Yes, sir.

Q The Ringoes Road was constructed how long before this road, about six months or three months wasn't it?

A Well, I am so informed.

Q According to the facts as you understand it?

A Yes, I have never looked up the records.

Q It says here in December?

20 A 1909, as I understand it.

Q And they began this about April, 1910?

A Yes.

Q So that practically the two roads have had about the same life except three or four months?

A Well, the difference between January and December.

Q You mean the use?

A Yes.

30 Q You said the Ringoes Road was in fair condition for its age?

A Yes.

Q What do you mean by that?

A Exactly what I said.

Q Then you consider a road in the condition that the Ringoes Road is now is in good condition for use for this time?

A Yes; none of the asphalt pavements seem to be permanent.

40 Q Then you expect to find defects in a road after a year?

Edwin A. Stevens, cross.

A I expect to find it wearing out, yes, sir. I did not think so when I went into the department, but it seems to be my experience.

Q It depends on the use largely?

A Yes.

Q If it is heavy, they may go to pieces in six months in places?

A Yes, they might if you got heavy enough traffic over them. 10

Q Speaking of the Turnpike between Newark and Jersey City that went to pieces in less than a year didn't it?

A Yes. There was peculiar conditions there.

Q Well, I suppose it was the water?

A It was a shaky base and very heavy traffic. I suppose that that road gets more traffic in a week that this does in a year.

Q Are you familiar with the St. George's road in Rahway? 20

A Yes, I know the road.

Q Do you know how long that lasted after that was put down and accepted by the state?

Mr. Stout. Was that the same kind of road?

The Witness. No, that is amisite.

Q That is supposed to be better in your judgment than this isn't it—you don't agree with your predecessor that that is a better road than this?

A I like a hot mixed road better than a cold one. 30
But that is largely a matter of opinion.

Q That St. George road is amisite?

A Yes. The failure of that was partly due to drainage, the blow outs due to drainage.

Q Drainage has a lot to do with it, doesn't it, Colonel?

A It has a great deal.

By Mr. Stout.

Q Did you make an examination of this White-house-Lebanon road for water defects? 40

Robert B. Gage, direct.

A Yes.

Q When did you make that examination?

A Why, in September.

Q What did you find?

A We found that one of the plugs, the one at station 20, a piece of the road was wet, but the others were all dry.

Q And that was the only evidence of water defects in the road that you found?

A That was the only one there.

ROBERT B. GAGE sworn, for the defendant.

Direct examination by Mr. Stout.

Q Where do you live?

A Trenton, New Jersey.

Q And what is your business?

A I am a chemist in the road department and the geological survey.

Q How long have you been employed in that position?

A I have been with the state for nine years.

Q How long have you been a chemist?

A Well, I don't know when you could rightly tell when your efficiency as a chemist begins, or when it leaves off, but I started chemistry in the fall of 1906.

Q Were you ever on the Whitehouse road?

A Yes, sir.

Q Did you examine samples taken from the Whitehouse road?

A Yes.

Q Can you tell me from what stations you took these samples?

Mr. Fort. I think you ought to qualify this witness a little more. He says he began the study of chemistry in 1906.

The Court. You can cross examine if you like. Is it worth while to have this witness go over all the stations?

Robert B. Gage, direct.

Mr. Stout. No, but I have the samples here in court and I am going to have this witness demonstrate the percentage of bitumen in each sample, and the quantity of stone, etc.

Q Did you take samples from the stations mentioned by Colonel Stevens?

A I did.

Q Did you make an examination of them?

A I did.

Q Have you the samples in court?

A I have, most of them.

Q Will you please produce them?

A (Witness does so.)

Q I wish you would state to the court how you secured the samples of the Whitehouse-Lebanon road?

A In sampling this road we did not endeavor to pick out good places or bad places; we managed to try to take average places, and sometimes, if I remember correctly, those places were indicated by the contractor and sometimes by the county authorities; I do not remember that there was any particular location for selecting samples.

Q Go ahead.

A After the place was selected we had a large chisel and sledge and cut out a square piece of pavement and measured the depth of the samples, and endeavored to dig to the bottom of the stone foundations to measure the total depth of stone in the road.

Q Is this the usual method of sampling such roads?

A Yes.

Q What was the condition of the samples after being cut from the road?

A If I remember correctly, we took nine samples in all. Seven of them did not hold sufficient bond to keep them together; they crumbled and went to pieces; two of them did hold together. One of them did not have strength enough in it to be moved, and the other had a solid section in it and I have that here.

Robert B. Gage, direct.

Q Why did they crumble on being cut from the pavement?

A The samples did not possess sufficient fine material to hold the pavement together; the only place that held the stone was the place where the stones touched on the edges and corners, and since there was a hard bitumen used in the construction of the pavement, once the bond was broken they would not re-cement; consequently they crumbled like so many loose stones.

Q I want to know what is usual in securing the samples, do samples secured from pavement of this type usually crumble to pieces in the manner you have described?

A They do not.

Q Did you take samples from the Ringoes road?

A Yes, sir.

Q That is called a trapite pavement?

20

A Yes, sir.

Q In what manner did you take those samples?

A In the same manner as those from the Whitehouse-Lebanon road.

Q Will you state to the court whether or not the samples secured on that pavement crumbled to pieces on being cut out?

A They did not.

Q Why not, if you know.

A The aggregate was a so much denser aggregate; it contained more fine material, which would give the pavement greater density and strength, and I was able to cut the pieces out, and I was also able to saw them without any crumbling whatever.

30

Q Have you the samples taken from the Lambertville road?

A I have.

Q And from the Whitehouse road?

A I have some of them.

40

Q Will you explain to the court the difference in the two samples?

Robert B. Gage, direct.

Mr. Fort. I have no objection, in view of the fact that there is no jury, but I want to say to the Court that I shall contend there is nothing in this contract which binds us to the condition of the Ringoes road.

The Court. Unless it is in that supplemental contract. Does not your contract provide that this sample road shall be laid down and that work shall not be done under the first contract unless this sample is accepted? 10

Mr. Fort. No. If that were so I would not make that point, but I want your honor to know just what my contentions will be on that. They were building what they call practically an experimental road, trapite, and they said "We want to see how trapite works, and we want you to build a thousand feet of the road," and they built it. They were testing that road, and if that road stayed they were going to try trapite, but there was nothing in that agreement that this should be built like that. 20

Mr. Stout. It provides that he shall put down the road at Ringoes in direct compliance with the specifications of the Whitehouse road, and we have the evidence of the man who made the mixture that he was given the formula as to the amount, the pounds of stone and asphalt and other stuff that was used in the Ringoes road as a sample for this trapite road here. Now we want to show by comparison the scientific analysis that it is not the same road. 30

Mr. Fort. I am not objecting to that testimony.

Mr. Stout. The supplemental contract expressly states that this shall be in direct conformity with it.

The Court. Well, proceed with your testimony.

Q You have the sample from the Ringoes and from the Whitehouse road? 40

Robert B. Gage, direct.

A Yes.

Q I want you to explain to the court why the one fell apart, and the other held fast, and the difference between the two pavements.

A Here (indicating) is a sample taken from Station number 56, one of the two samples that held together.

By the Court.

10

Q What road was that taken from?

A The Whitehouse Lebanon road. The chief reason why this did not fall apart or crumble is that it contains an excess of bitumen; it is very plain to the eye, without the analysis. The analysis shows that it contains six and three tenths per cent. of bitumen.

Q Is that in the same condition that it was when you took it out.

20

A Just the same. Now here is another piece of the same sample sawed. According to the specifications this material is supposed to be water proof. You can see the nature of the voids, and this is a much denser one. This is the only one that possesses sufficient strength to hold together, and now out of the other eight samples—this is the condition of the samples—

Mr. Fort. The stenographer cannot get "this." I object to his saying "this."

30

The Witness. I can give the stations. Sample station one hundred and eleven plus twenty. The others are more or less of the same character, with the exception of the other one that did not break; that is this small piece here, and you see the solidity of this piece.

Q When you attempted to cut out a piece like that (indicating) it broke up like this?

40 A Yes, because it is just a loose mass, loosely held together. Now the sample from station 112, as I say, one of the two held together, but it was not sufficiently strong to saw; it is supposed to be full of

Robert B. Gage, direct.

fine material, which would make it water proof and give it more strength. Now these samples are from the Ringoes road. Samples one, two and three. You can see by the appearance of these samples that they do not resemble the others.

By Mr. Stout.

Q In what way?

A They are more dense, and the analysis shows the average composition of these three samples contained an average bitumen content of six and three tenths against an average bitumen content of four and forty-three one-hundredths per cent. in the White House Lebanon road. 10

Q What was the average per cent. of bitumen in the Whitehouse-Lebanon road?

A Four and forty three one hundredths per cent.

Q What is the average bitumen in the Ringoes road? 20

A Six and three tenths per cent.

The Court. Nearly two per cent. difference.

The Witness. Yes, sir. Now the aggregate in the Lambertville-Ringoes road contained fifty nine and one half per cent. of material too large to pass one eighth inch circular opening and that in the Whitehouse-Lebanon road contained eighty two per cent., a difference of about thirty per cent., and according to the average run of this character it will contain about forty per cent. of voids; in other words you should have about thirty per cent. of fine material. 30

Q What does the Lambertville call for, the three samples?

A The Lambertville had fifty nine and one half per cent.

By the Court.

Q What part of the contract alludes to that?

A This is the sample pavement. 40

Robert B. Gage, direct.

Q I want to know wherein the samples taken out of the road now in controversy failed to comply with the specifications.

Mr. Stout. I am going to show that in a minute.

By Mr. Stout.

10 Q Now, Mr. Gage, you have read the specifications as to the water proof and dustless road?

A Yes, sir.

Q And the ingredients that go to make that up?

A Yes, sir.

Q Do you find a difference in the water proof quality of the Whitehouse road as compared with the Ringoes road and if so, state to the court in what manner they differ.

20 A The chief difference is that this pavement here (indicated) that the voids in the Whitehouse-Lebanon road, the dust and dirt all got in there, and that is really worse for a pavement of this type than the action of water would be for that length of time. As soon as travel once breaks one of those stones loose, when the voids are full of dust and dirt, it will never re-cement or re-heal, and the action of travel on there tends to grind that pavement, and here is another sample sent in from this same road and you can see the dust has completely extracted the bitumen from these points; that was once completely coated. That
30 is why the raveling proceeds so fast once the bond has been broken.

Q Did the Whitehouse-Lebanon road show any evidence of having been repaired?

A It did.

Q In what manner was it repaired?

40 A There were two methods of repair being used here. In certain places, there was no pavement thinner in thickness than the original pavement, and the composition which was placed over the top of the orig-

Robert B. Gage, direct.

inal pavement, in some places it was painted or squeegeed with hot bitumen.

Q And this coating you speak of, has it any adhesion to or connection with the original pavement.

A The coating or pavement like this sample here, station 56, that is top coated and that was applied to the Whitehouse-Lebanon road, and has no connection whatever, or adhesion to the bitumen pavement; it is only a blanket put on the top, and it can be easily scaled loose, and as soon as it disappears the pavement will ravel the same as if it had not been coated, and this is sufficient to indicate that it would not last very long. 10

Q What is the value of that coating you speak of?

A The composition of it would not indicate that it was going to last more than three or four years. In some of these samples here you can see the decomposed nature of the pavement, and it was rotted even now. 20

Q From your examination and analysis of this Whitehouse road I want to know whether or not after the top pavement is worn away will the original pavement then be in any better condition to resist the decomposition or raveling than it was previous to the application of this top coating.

A It certainly will not.

Q Does this top coating you speak of cover the full width and lengths of the Whitehouse-Lebanon road. 30

A I think it does.

Q I wish you would explain to the court just exactly what trapite is.

The Court. Do we care about that? The specifications show what it is.

Mr. Stout. I want him to state what it is, and how it is made.

Mr. Fort. I do not suppose we are bound by how he says it shall be made. 40

Robert B. Gage, direct.

The Court. The contract and specifications provide for laying a pavement which is called trapite. What difference does it make, if it is laid according to the contract.

10 Q From your examination from the Whitehouse-Lebanon road and your examination of the Ringoes road, what have you to say to the court as to whether or not the Whitehouse-Lebanon road was properly laid?

Mr. Fort. He is not an expert on roads. He is a chemist.

Mr. Stout. It has been testified by the man who made this mixture and the mixture for the Allenhurst road that the mixtures were just the same. Now I have a sample of the Allenhurst road which has been analyzed, and I would like to have him testify as to the difference between that and the Whitehouse road.

20 *The Court.* (After discussion.) I suppose that it is competent to test the accuracy of that testimony.

Q Have you taken samples from the Allenhurst road?

A Yes, sir.

Q How did you take those samples?

A They were cut out in the same manner as on the Whitehouse road.

30 Q Have you the samples here?

A Yes.

Q How many?

A Three.

Q They are numbered what?

A From the corner of the streets where they were taken.

Q Please state where you took the first sample.

A From the corner of Norwood and Euclid avenues.

40 Q And the second sample?

Robert B. Gage, direct.

A The second sample is diagonally across the road and on the opposite corner from where the first sample was taken. The third sample does not show, but if I can remember correctly this third sample was taken about two blocks from the first sample.

Q Have you compared the samples taken from the Allenhurst road with the sample of the Whitehouse-Lebanon road?

A I have. 10

Q State how the quantity of bitumen contained in the Allenhurst road compared with that in the Whitehouse-Lebanon road.

A The average bitumen in the Asbury Park road was eight and one one-hundredths per cent. The mineral aggregate of this shows that only thirty-two per cent. was grosser than one-eighth inch circular opening in diameter, while it contained ten and eight-tenths per cent. of what is known as filler. Now the composition of the Whitehouse-Lebanon with which a filler was supposed to be used in the bottom course, I only secured four and seven one-hundredths per cent. of filler, which included the original dust that would be in the trap rock from the run of the crusher; it would not indicate that much filler was ever used. 20

Q What do you say about the bitumen contained in the Whitehouse road?

Mr. Fort. What was that last answer.

Witness. That much filler was used in the Whitehouse-Lebanon road. 30

Q As to being water proof, compare them.

A There is really no comparison between these two materials from the water proofing standpoint. You can hardly compare the samples of these two pavements, yet they are testified to be identically alike. This (indicating) is the best sample from the nine samples, the only one that would hold together, and these others are all practically alike. 40

Robert B. Gage, direct.

Q In the construction of an asphalt road what is the most expensive material that is used?

A The bituminous cement, the asphalt cement.

Q And by putting in a lesser quantity of asphalt cement it cheapens the construction?

A Very much.

Q You have read the specifications?

10 A Yes, sir.

Q Just state to the court, please, the ingredients that are necessary to be used in making a pavement such as called for by these specifications.

Mr. Fort. I object.

The Court. That is too general. Call his attention to the particular clause of the specifications and show wherein this road fails to meet the specifications.

20 Q You have read the specifications?

A Yes, sir.

Q And made an analysis of the Whitehouse-Lebanon road?

A Yes, sir.

Q What quantity of asphalt cement should that pavement contain, under these specifications, to make a proper pavement?

Mr. Fort. I think that is a question for the court.

30 Q What would be the proper mixture for a road to contain six per cent. of bitumen as in the Lambertville road composed of asphaltic cement, sand of satisfactory grading and grain, filler consisting of finely powdered mineral material, and trap rock, run of the crusher, up to one inch?

A If this mixture is to be water proof, it means that the mineral aggregate will have to be so graded that the per cent. of bitumen used will fill the voids. In that case it will take from six and one-half to eight
40 and one-half per cent of bituminous cement.

Robert B. Gage, direct.

The Court. What does that last paragraph then mean—"per cent. of bitumen in said asphalt cement shall in no event fall below sixty and shall not be affected by the action of water," etc.

The Witness. That means that the asphalt cement they use shall not contain over forty per cent. of mineral matter, such as sand and dirt, that is usually included in asphalt.

10

Q How much bitumen is in it?

A About four and one-half per cent.

The Court. What does this mean? It says "Per cent. of bitumen in said asphalt cement shall in no event fall below sixty." What does that mean?

The Witness. The word "bitumen" used there means per cent. of the carbon compounds in the asphalt that is soluble and carbon bisulphide in the asphalt cement sixty per cent. of the organic compounds in that cement was soluble and the carbon bisulphide, the rest was sand and dirt hauled from Trinidad.

20

Q In other words one applies to the quantity and the other to the quality?

A No, they are both right.

By the Court.

Q Then what per centage do you say of bitumen was in this Whitehouse road?

30

A The average composition I got from my analysis showed forty and forty-three one-hundredths per cent.

Q Forty instead of sixty? Do you mean sixty or six per cent.?

A Of what?

Q The contract provides that "per cent. of bitumen in said asphalt cement shall in no event fall below sixty"?

40

Robert B. Gage, direct.

A I think my analysis shows that the bitumen in the asphalt cement was something like eighty-two per cent.

Q Then it exceeded the requirement of the contract, as far as your examination went?

A That is of the bitumen itself, not of the pavement. According to the contract, it meant that the asphalt cement they used should not contain over
10 forty per cent. of sand and dirt.

Q Did it?

A I am pretty sure it didn't.

Mr. Fort. I submit that answer ought to be stricken out; he cannot testify to the construction of this contract. He says there is eighty-two per cent. of bitumen.

The Witness. I have not my analysis, but I think they show something like that.

20 Q Then it was at least sixty?

A Yes, it was at least sixty per cent.

By Mr. Stout.

Q You get some asphalt that contains one hundred per cent. don't you?

A Trinidad asphalt is the only asphalt used that really is that impure; it generally is ninety-nine and ninety-eight hundredths per cent. pure.

Q In this case he could not use asphalt less than sixty per cent.?

30 A No, I don't think he could get any. According to the proportions testified to this morning, it would mean exactly four and one-half per cent. of bitumen was used in the pavement.

Q What per cent. of bitument would the composition you heard testified to this morning contain?

A Four and one-half per cent.

Q That is what you find in that road?

A Well, I get four forty-three.

Q Pretty close?

40 A Yes; closer than I expected it would be.

Robert B. Gage, cross.

Cross examination by Mr. Fort.

Q I understood you to say, did you not, that you found eighty-two per cent. from chemical analysis, that you found in these samples. How did you get that eighty-two per cent.?

A After the contract was finished I was on the job and there were some barrels of cement adjacent to the plant; some of the pure bitumen was chipped out and I just ran a bitumen test on it to see how much was in the asphalt cement, and, if I remember correctly, about eighty per cent—but I have no proof whatever that the sample I took from the plant was the same cement that was used on the road.

10

Q Then you have made no chemical analysis of the asphalt that is in these samples which you have here to find out what the percentage of bitument is in that?

A I have analyzed everyone of those to find out the percentages of bitumen.

20

Q In a whole lump?

A Of the average composition, yes.

Q And there is oil in there?

A Flux oil?

Q Yes.

A Undoubtedly there is.

Q What percentage of bitument is there in the flux oil?

A About ninety-nine per cent.

30

Q And that increases the bitumen in this construction if the asphaltic cement composed of refined asphalt and fluxed were used—that would increase the bitumen?

A That would increase it if the proportion were based on that view. I have no record or any knowledge that bitumen was fluxed in there; if the bitumen was fluxed it was mixed.

Q Then you have made no chemical analysis of this to find out if that was done?

40

Robert B. Gage, cross.

A Whether the asphalt was fluxed?

Q Yes.

A I don't know whether it was fluxed or not.

Q Then how do you arrive at a result of what percentage of the asphaltic cement should be used in making this mixture if you did not make your analysis, if you did not know how much bitumen was in the asphalt used?

10 A I did not make any analysis to show how much bitumen should be used. My analysis shows the actual bitumen that is in these samples.

Q And that is all you tried to do?

A Yes; my analysis simply show the bitumen content of those samples as they were laid on the road. What he had before that, in use, my analysis won't show at all.

By Mr. Stout.

20 Q Except by comparison?

A Well, no.

Q Another thing, if the flux oil can be classed as a bitumen my analysis will include that flux oil. In other words, if flux oil was used, I reported that as bitumen, which reduces the actual bitumen that should be in the sample. In other words, I got four and forty-three one-hundredths of bitumen, and if fifteen per cent. of that was oil, to get the true asphalt you would have to decrease it by that much.

30 *By Mr. Fort.*

Q Then you could not say how much bitumen was in that mixture?

A I could say what showed in the mixture.

Q In making the asphalt cement test you cannot say how much bitumen was in the mixture, can you?

A I can say how much bitumen was in the sample.

Q Can you tell from the samples how much was used in the mixture?

40 A I cannot for the simple reason that there was sand in the bitumen used and sand in the pavement;

Robert B. Gage, re-direct.

the sands are all mixed up, and there might have been five or twenty-five per cent. of sand in the asphalt cement that was used.

Q Was there any difference in the thickness of the trapite on the Ringoes road from what it was at Whitehouse, from the samples you took.

A In some places the thickness of the Whitehouse-Lebanon road—it varied; in some places it was thicker, and in some places thinner than what we secured on the Ringoes road. I do not think there is much difference of the pavement; if there is any difference it is on the Whitehouse-Lebanon road, in regard to the quantity of pavement. 10

Re-direct examination by Mr. Stout.

Q From your analysis there is no fault to be found with the quality of the asphalt that was used?

A I think the quality of the asphalt used easily fulfills the requirements of the specifications. 20

Q What is the trouble with it?

A The great trouble with this road is that it contains a deficient quantity of asphalt and a deficient quantity of fine stone.

Q What about the voids?

A They are not filled, and consequently the pavement is not water proof.

Q Is stone dust, sand?

A I never heard stone dust called sand, and I do not think it is defined as such by any authorities on the subject. 30

Q Did you find any evidence of the use of sand in the construction of this pavement?

A I did not.

The Court. You say that in your opinion the difficulty of the road was a deficient quantity of asphalt—

The Witness. And a deficient quantity of fine stone to fill the holes.

Robert B. Gage, re-direct.

By Mr. Fort.

Q The fine material you refer to is stone less than an inch in size?

A Yes, less than an inch in size.

Q There should be more of that, you think?

A There should be more material ranging in size from stone passing a three-eighths opening down to stone retained in an eighty-mesh sieve, and also filler.

10 Q Did you discover any material in here that would not pass through a one-inch mesh?

A There may be a few pieces of stone that would not all pass, but just the exact percentage—

Q Then practically all the stone would go through an inch mesh?

A I believe the specifications say stone up to one inch.

20 *The Court.* No; trap rock up to one inch.

The Witness. What does that mean?

Q It means not larger than an inch doesn't it?

A What does that mean?

Q To pass an inch ring—

Mr. Stout. Oh, no.

Q When they go through the crusher they go through a screen?

A Yes.

Q And those that go through a one-inch ring are called for in these specifications?

30 A That is only three-quarter inch stone, but here it says one-inch screen.

Q No, it don't; it means it goes through a screen on the crusher that will take a stone through a one-inch hole.

A I don't know whether that means one inch circular holes or square holes.

The Court. This clause in the specifications says "Filler, consisting of finely powdered mineral material." Isn't that stone dust?

Robert A. Meeker, direct.

The Witness. Yes.

Q Did you ever see a screen on a crusher that has a square hole?

A Yes.

Q Where?

A Up on the Pennington crusher.

Q Usually it is round, isn't it?

A Usually.

Q Then a round screen hole is not proper? 10

A My judgment would be that a round hole is meant, but I have no right to say a round hole is meant.

ROBERT A. MEEKER, sworn for the defendant.

Direct examination by Mr. Stout.

Q You are employed by the State?

A I am.

Q In what capacity?

A State Supervisor of Roads. 20

Q As such, did you visit the Whitehouse-Lebanon road in December, 1910.

A I did.

Q Just state to the Court the condition you found the road in.

A I found the road at the Whitehouse end in fairly good condition up to the Rockaway Valley Railroad; beyond that there were indications of disintegration. Up Potters Town Hill, it was in good condition; beyond that there were other broken places, and then in the hollow, just this side of Lebanon, it was in very bad condition, and in Lebanon I found it good at that time. 30

Q Did you go upon the road after that?

A I did.

Q When?

A Several times during the winter and spring.

Q Were you there in the month of April?

A I was.

Q With Mr. Montgomery? 40

Robert A. Meeker, direct.

A Yes, and Colonel Stevens and Mr. Gage.

Q What have you to say as to the condition of the road then as compared with it in December?

A It was much worse.

Q What was said, if anything, by the plaintiff, or the president of the plaintiff, about repairing the road?

A Mr. Montgomery?

10 Q Yes.

A He said he wanted to build as good a road as he could build, and he was more interested than anybody else in having a good road there, and if it was not right he was going to make it right. That was the substance of what he said.

Q Was there anything said as to how he should make it right?

A No, sir.

20 Q Were you there in September, 1911, when the samples were taken?

A I was.

Q Just state to the Court the condition you found the road in at that time.

A In some places the condition was much worse. One place in particular, at the top of the Potters Town Hill, west of Potters Town, they were making some repairs, and Colonel Stevens requested Mr. T.—who was in the charge of the work for Mr. Montgomery—

30 Q That was in August?

A Yes—to sweep the road clean. He didn't say anything, only merely to tell the workmen to sweep, and he swept, and the more he did the more dust and dirt he raised and he kept on until he swept everything away, down to the bottom stone; it was absolutely dry and powdery.

Q Were you there in September?

40 A This dry place he swept away was in August; the samples were taken in September.

Robert A. Meeker, direct.

Q Were you there the day the samples were taken?

A I was.

Q What, if anything, was said about water being in the road?

A Mr. Montgomery said something about the failure being due to wet foundations, and one sample that we took out at a point near the Rockaway River—the Rockaway River at that point follows the road, and the surface of the road appeared very good at that point, and there were really no breaks in it; but when we got through we found the foundations very wet and muddy, but the top was quite good at that point. 10

Q At any other point in the road did you find evidence of water?

A That was only the Rockaway River, and one point just east of Lebanon. At the other points we found it very dry.

Q How recently have you been over this road? 20

A It was either the first or second week in January.

Q Of this year?

A Of this year.

Q What would you say as to the condition of the road at that time?

A I noticed that the blanket coat that had been placed on the road was peeling up in several places, scaling off. As I expressed it at the time, part of the road looked very much like a mangy dog. 30

Q Do you know about the blanket coat that you speak of, how it was put on?

A It is poured on hot, and dust thrown on it; it is swept in, broomed in; it was pretty good for a blanket coat.

Q When was that done?

A I don't know just when it was done. It was during the summer following our inspection in the spring. They were busy there quite a long time. I passed the road several times. 40

Robert A. Meeker, cross.

Q Were they putting this dressing on in August, at the time you say this sweeping was being done, or was done?

A Yes, but they had been at it some time before that.

Q How long have you been in the road construction business?

A Twenty-five years.

10

Mr. Fort. I will admit that Mr. Meeker is qualified.

Q Have you investigated the trapite road at Allenhurst?

A I have.

Q What have you to say as to the Whitehouse-Lebanon road in comparison with the Allenhurst road?

20 A There is no comparison. The Allenhurst road is an exceptionally fine piece of hot mixed road.

Q What is this?

A Very poor.

Cross examination by Mr. Fort.

Q Are you familiar with that piece of road that was laid at Lambertville?

A Yes.

Q What was the foundation of that road?

The Court. You mean the sample piece?

Mr. Fort. Yes, sir.

30 A It was an old macadam road, the first road laid in the county.

Q The oldest road in the county, wasn't it?

A Yes, it was laid by order of the court.

Q What character of grading was this road laid on, old or new?

A New.

Q How much of it was on a fill?

40 A There wasn't much of it on a fill. There were here and there sections on a fill. A great deal of it was through cuts.

Robert A. Meeker, cross.

Q Well, there were a good many approaches to bridges where there had been fills?

A Naturally there were a few cuts and fills, as you have in grading a road; but you would not call it a filled road.

Q Where were the ravelings, on fills?

A No, that is the peculiar part of it; the worse place is up there on the Potterstown Hill, where there is a cut of about ten feet.

10

Q What is the condition of the cut at that point?

A Dry as punk. This is right on the very brow of the hill. The road pitches both ways.

Q From your general knowledge of these roads—give me a little bit if you will—do you generally get uniform results from the roads, or do some turn out good and some bad, even when constructed in the same way?

A Oh, certainly; even if they are asphalt at \$2.50 or \$2.75 a yard, they will break.

20

Q Some of them for seemingly no reason that you can account for will turn out to be no good, and others, in the same way are in good condition, are they not?

A Sometimes by a close examination you can determine the reason for it.

Q Climatic conditions will have a lot to do with it?

A Yes.

Q The character of the heating will have something to do with it, won't it?

30

A Certainly, if it is cooked, it is good for nothing. If asphalt is cooked it is nothing more than so much charcoal.

Q Did you go over this road during the time it was in process of construction, originally?

A I did.

Q Were you then in the same position with the State that you are now?

A I was.

40

Robert A. Meeker, cross.

Q This gentleman was the state supervisor whose name has been attached to the certificates, Mr. Higgins?

A Yes, sir.

Q Do you know him?

A I do.

Q Do you know of any instructions which were given by you to him, or by you for him that were not
10 complied with in the building of this road originally?

A I very seldom saw Mr. Montgomery on the road; I saw Mr. Hobin.

Q Did you give Mr. Hobin any instructions which were not complied with, if you know?

A Not when he was sober.

Q Did you when he was drunk, then?

A Yes, I didn't know just the condition; he would drive off and pay no attention.

Q Did you give any instructions to your super-
20 visor that you understood from him were not complied with?

A Very seldom. Generally speaking, the instructions were very closely followed; sometimes not the first time, and sometimes not the second; but finally by persisting we would get everything nearly that we were after.

Q How many times were you up there?

A I could not answer that. Sometimes once a week and sometimes twice a week, and sometimes I
30 was not there for two weeks. I was travelling all over the state.

Q Yes, but you were looking after the construction?

A Yes, I was following it up.

Q And you were examining the mixing?

A No, I didn't examine the mixing of the asphalt.

Q Why?

A Because it was presumably a secret process, a
40 patented process, and it was to be judged by its final results.

Robert A. Meeker, cross.

Q Do you understand this to be a patented process?

A I do.

Q Or even a copy-righted process?

A Yes, copy-righted; that is what I have always understood that trapite was, a copy-righted name.

Q Do you know if there is any royalty on this of any kind?

A I don't know. 10

Q Aren't you thinking of warrenite, when you speak of its being patented?

A I understood this was a copy-righted name to a special mixture.

Q Where did you learn that?

A That is what I was given to understand, that "This is a mixture that we are going to put on the road, and we will guarantee it," and that was the reason Colonel Gilkyson insisted on having a sample of it put down, because we did not have the quantities or composition, and therefore, the sample was laid on the Ringoes-Lambertville road. 20

Q Do you ever remember making a request for the quantities of the composition and having it refused?

A It was none of my business, and therefore, I did not ask.

Q You are familiar with the Lambertville road, aren't you?

A I am. 30

Q How many times, if you know, has that Lambertville road been repaired, since it was laid three years ago?

A I don't know that it has been repaired, but it has been damaged by putting the road oil on.

Q How much cracked stone has been put on since?

A I haven't noticed any, but I have noticed the road oil on there. I spoke to the county supervisor about it, that he was damaging the asphalt by putting the road oil on. 40

Morris R. Sherrerd, direct.

Mr. Stout. I suppose I have offered all my records. The minutes are in, and I would like to offer the various samples of trapite from Ringoes, Whitehouse and Allenhurst, testified to by Mr. Gage.

DEFENDANT RESTS.

10 MORRIS R. SHERRERD, sworn for the plaintiff in rebuttal.

Direct examination by Mr. Fort.

Q You heard the testimony of the chemist, Mr. Gage?

A Yes, sir.

Q He testified that under the formula given this morning as I understood it, by young Mr. Montgomery, taking one thousand pounds of stone, fifty
20 pounds of dust and ninety pounds of asphaltic cement, that he got a result out of that, 4.43 of bitumen treating the bitumen in the asphalt as 82 per cent. Have you figured that, and will you tell me what the percentage is of bitumen.

A On the basis of 82 per cent. in the ninety pounds, this would give a result of about 6.3 per cent. in the mixture.

Q Tell us how.

A By taking a thousand pounds of stone, and the
30 fifty pounds of dust and the ninety pounds of asphalt cement in the mixture would give the eleven hundred and forty pounds, and taking eighty-two per cent. of the ninety pounds as being bitumen would give about seventy-three, I think it figures, per cent., of that ninety would then be bitumen.

Q Seventy-three pounds, you mean, of the ninety?

A Yes. And dividing it by eleven hundred and forty gives 6.4.

Q Of bitumen?

40 A Of bitumen, in the resultant mixture.

Morris R. Sherrerd, cross.

Q On the figures he has given?

A Yes, sir.

Cross examination by Mr. Stout.

Q Mr. Gage in his answer to the question said he did not know whether it was eighty-two per cent. or not.

Mr. Fort. He said it was eighty.

Mr. Stout. I beg your pardon, he did not say that. 10

Q Mr. Gage testified that taking a thousand pounds of stone, ninety pounds of asphalt to a bag of cement he would then get four and one-half per cent. of bitumen. That is as far as his answer went. Have you made that sort of calculation?

A No, I have not.

Q At sixty per cent., as called for in the specifications, will you please calculate that. 20

Mr. Fort. How could he figure it that way? He must have figured the amount of bitumen he found in his analysis. The specifications only call for sixty per cent., not less than sixty per cent., and your own schedule shows sixty-four.

Mr. Stout. Oh, no.

Mr. Fort. Well, six and four-tenths; what is that?

The Witness. It would be a little under five. That is on the assumption of sixty per cent. 30

Q And don't you recall that Mr. Gage testified that the asphalt was eighty-two per cent. out of the barrel, which had never been on the road.

Mr. Fort. He said the asphalt he took from the barrel had never been on the road.

Q Now in your calculation of over six per cent. of bitumen in that road it is based on the asphalt that Mr. Gage testified he had taken from the barrel, which had never been on the road. 40

Morris R. Sherrerd, cross.

A As I remember his testimony he gave it in two ways. In the early part of his testimony he said he found the bitumen to be eighty-two per cent.

Q In the barrel?

10 A No, previous to the reference to the barrel, and afterwards he qualified the statement by saying the sample was taken from the barrel that he found there; but previous to that he had testified the asphalt in the mixture went way above the contract requirement. I remember that he said the asphalt requirements were way above the specifications and they ran as high as eighty-two per cent.

Q From the barrel?

A No this was prior to that.

Q In regard to cement alone?

A To asphaltic cement.

Q But with regard to the mixture?

A As to the cement?

20 Q Yes, but not in regard to the mixture that was put on the road.

A He was testifying with regard to the bitumen in the asphaltic cement.

Q Yes, but not the mixture that was put on the road?

A Certainly not.

30 Q Now let us get down to your calculation. You have a thousand pounds of stone, ninety pounds of asphalt and a bag of cement—we will say fifty pounds; now just state what your calculation is as to the amount of bitumen you would find in that?

The Court. Can you agree on that as to what it would be?

Q Wouldn't it be nearer a hundred?

A I don't know what size bag they used, what the special mixture this might have been.

Q Don't they use about one per cent. of the weight of the stone to make a proper mixture?

Morris R. Sherrerd, cross.

A I don't know about the practise; I am not an expert about asphaltic mixture. I am only making a calculation.

Q Just figure out the percentage and find out what the bitumen would be in that mixture?

A You have not given enough.

Q Assuming it to be fifty pounds?

A You have not given enough factors to make the calculation you ask for.

10

Q I want to know what would be the proportion of bitumen in a thousand pounds of stone—

A There wouldn't be any in that.

Q —and mixed with asphalt ninety pounds and fifty pounds of dust?

A It depends on the bitumen the asphalt carries. You have not given that factor.

Q Assuming it to be eighty per cent.?

A I figure it for eighty-two; it is about six and three tenths.

20

Q How do you get at that?

A I take eighty-two per cent. of the ninety pounds which gives seventy-three, and divide seventy-three by the total weight of the mixture which is 1,140 pounds and that gives six and four-tenths plus.

Q Now then, figure for a thousand pounds of stone, ninety pounds of asphalt, a bag of dust, fifty pounds, the bituminous content sixty per cent. as called for in the specifications.

30

A I gave you that before. It is slightly under five.

Q Four and seven-tenths wouldn't it be? What is your business?

A I am a civil engineer.

Q And you have superintended the construction of asphalt pavement?

A Yes, sir.

Q And concrete pavements?

A Yes, sir.

40

Richard M. Montgomery, direct.

Q Have you ever seen or known of an asphalt pavement to be constructed with four and one-half per cent. of bitumen in it?

A Not an asphalt pavement, proper, No.

Q Or a bituminous concrete pavement?

A Yes.

Q With four and one-half?

10 A I could not testify to the exact percentage.

Q I am asking you if you have ever known of one?

A I cannot testify as to percentages, because I have not made an analysis.

Q You have superintended them?

A Yes.

Q And in superintending a bituminous concrete pavement, when the material is put on, you cannot tell whether it contains the requisite amount of bitumen or not?

20 A My practise has been to have the analysis made at the plant, and have supervision of the mixtures at the plant.

Q When it is made at the plant, but you can't tell after it is put on the road?

A You cannot tell by inspection, no.

RICHARD M. MONTGOMERY, recalled for the plaintiff in rebuttal.

Direct examination by Mr. Fort.

30 Q Do you remember these bags that contained the dust that was used in this mixture?

A Yes.

Q What was their weight?

A I could not swear as to their weight, but they could be lifted easily; I lifted lots of them, and threw them in the box myself; they were not heavy. I should not say they were over fifty pounds; you could easily handle them.

Q Were they any larger than a cement bag?

A No, sir.

40 Q Or as large?

Richard M. Montgomery, cross.

A They looked to me just about the same, if anything a little smaller than a cement bag.

Q Are you familiar with the Ringoes road? I think you said you were?

A Yes.

Q Do you know anything with relation to its being repaired in the last year or so?

A Every time they repaired the Ringoes-Lambertville road they always put stone on top of this base we put trapite on, and also put oil on it two or three times. 10

Q How frequently have you been over it?

A I go over it every day, three or four time, sometimes, especially at one point, near town; I test cars up over it.

Cross examination by Mr. Stout.

Q You put in this dust that you speak of without ascertaining the number of pounds you put in to make a proper mixture? 20

A I put it in by the bag, yes, sir.

Q You did not ascertain how many pounds were in a bag?

A I did not, no, sir.

Q Did the bags come to you marked with the weight?

A No, sir.

Q As to what they were?

A No, sir. 30

Q Where did they come from?

A From the limestone quarry.

Q Where?

A I don't know.

Q Were they delivered to the plant or to the station, and you carted them over, or how?

A No, sir, they were delivered at Mendham in a box car, and we unloaded them right at the plant.

Q You mean on the Rockaway Valley?

A Yes, sir. 40

Robert Montgomery, direct—cross.

Q Did you have any instructions from the Delaware River Quarry & Construction Company as to how many pounds of dust it would take to make a proper mixture?

A I was instructed to put in a bag to a batch.

Q What means did you have of weighing the stone?

A Scales.

10 Q And you weighed each thousand pounds?

A Yes, sir.

Q How did you determine the dust of the stone?

A That was mixed in with the stone the run of the crusher.

Q And shipped there in cars?

A Yes, sir.

Q Some stone would contain a good deal more dust than others wouldn't they?

20 A I don't think so, no, sir; not the run of the crusher.

Q And you just put them in as they ran and as they were shipped?

A Yes, sir, just as they were unloaded from the cars.

ROBERT MONTGOMERY, recalled for the plaintiff in rebuttal.

Direct examination by Mr. Fort.

30 Q Are you familiar with the bags of dust used on this job?

A I am.

Q What was their weight?

A Between forty and fifty pounds.

Cross examination by Mr. Stout.

Q Where were they sent from?

A They were shipped to us from the cement works.

Q Then they were in cement bags?

40 A No they were not. They were in stone dust bags.

TESTIMONY CLOSED.

Decision of Judge Vail.

Decision.

Filed June 3, 1913.

NEW JERSEY SUPREME COURT.

HUNTERDON CIRCUIT.

10

DELAWARE RIVER QUARRY & CON-
STRUCTION COMPANY, a corpora-
tion,

Plaintiff,

vs.

THE BOARD OF CHOSEN FREEHOLD-
ERS OF THE COUNTY OF HUNTER-
DON,

Defendant.

20

VAIL, J.

This case, by consent of counsel, was tried before the court without a jury.

The action is brought to recover a balance claimed under a contract for the construction of a road in the County of Hunterdon under state plans and specifications with material designated as trapite, and also for extra work done by the plaintiff, not covered by the terms of the contract. The defendant admits that the extra work was done by the plaintiff and accepted by the defendant and that the charges are reasonable, but it resists the claim for the balance alleged to be due under the contract upon the ground that the work was not done in accordance with the plans and specifications and that the road was never accepted by the Board of Freeholders or the state road commissioner.

The contract was prepared under the provisions

40

Decision of Judge Vail.

of an act of the legislature, P. L., 1905, p. 94. Section 3 of this act provides: "The time and manner of payment for work done under any contract awarded under this act shall be set forth in said contract, and at least five per cent. of the contract price shall not be paid to the contractor until after the expiration of one year and the completion of the contract and acceptance thereof in writing by the commissioner of public roads."

Under section 73 of the contract it was provided: "The Board of Chosen Freeholders shall not make any monthly payments to exceed eighty per cent. of the contract price, which monthly payments shall be upon certificates of the engineer and supervisor; fifteen per cent. of the amount retained is to be paid to the contractor upon the completion of the work and the acceptance of the same in writing by the Board of Chosen Freeholders and the State Commissioner of Public Roads; the remainder of five per cent. is to be retained by the Board of Chosen Freeholders for the period of one year."

Eighty per cent. of the contract price was paid during the course of construction, upon certificates of the State Supervisor and the County Engineer. At the trial testimony was offered by the defendant to show that the road was not built as required by the contract; and by the plaintiff to show that the contract had been strictly performed. But that question is one that the court cannot consider. The fatal defect in the plaintiff's case is that the road had not been accepted by the Board of Freeholders or the State Road Commissioner. In the absence of fraud no recovery can be had under the contract without the approval of the State Road Commissioner and the acceptance of the Board of Freeholders.

This case is almost parallel with *Curley vs. Board of Chosen Freeholders of the County of Hudson*, 66 N. J. L. 401. In that case the plaintiff attempted to recover the balance from the County of Hudson under

Decision of Judge Vail.

a contract for the building of a public road. The act under which the contract was made provided for the appointment of a chief engineer and that no money should be paid to any contractor that is engaged in the building or construction of said road until the bill or claim therefor shall have been approved by the said chief engineer, except that the said board might order the payment of any bill or claim without such approval by a two-thirds vote of all members of the board. The court held: "There has been no vote of the Board of Chosen Freeholders upon the plaintiff's claim, and therefore, by the plain words of the statute, the claim cannot be paid without the approval of the chief engineer. It follows logically that in the absence of fraud no recovery can be had upon such a claim without such approval." (Citing *Chism vs. Schippen*, 51 N. J. L., p. 1.) In *Gerrisch vs. Herold*, 82 N. J. L., 605, the Court of Errors and Appeals held that contracts requiring the work to be satisfactory to the employer are valid. See also *Potter Press Works vs. Daily Advertising and Publishing Company*, 82 N. J. L., 671.

The plaintiff insists that there has been at least substantial performance of the contract, and that it is therefore incumbent on the defendant to show what it would cost to complete the contract, and that in the absence of such evidence the plaintiff can recover the contract price, and cites a number of cases in support of this contention; but in none of the cases cited was there any provision in the contract for acceptance as a condition precedent to a recovery except in the case cited from the New York Court of Appeals. So that so far as this court is concerned the case of *Curley vs. Hudson* must control and there can be no recovery under the contract, but the plaintiff will be entitled to judgment for \$2,309.06, the amount of extra work with interest from January 1, 1911.

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30

40

*Postea.***Postea.**

Filed October 16, 1913.

NEW JERSEY SUPREME COURT.

(HUDSON COUNTY.)

10

 DELAWARE RIVER QUARRY AND CON-
 STRUCTION COMPANY,
*Plaintiff,**and*
 THE BOARD OF CHOSEN FREEHOLD-
 ERS OF THE COUNTY OF HUNTER-
 DON,

20

Defendant.
*Action
 at Law.*

30

This case was tried before the Circuit Court Judge, Benjamin A. Vail, to whom the matter has been duly referred by the Honorable Francis A. Swayze, Justice of the Supreme Court, according to the Statute in such case made and provided. The case was tried without a jury in the Hudson Circuit on the sixth day of March, nineteen hundred and thirteen. On the said date counsel for the plaintiff and defendant appeared and the evidence was heard and the court finds:

40

1. The sum of two thousand three hundred and nine dollars and six cents is due from the defendant to the plaintiff for extra work performed by the plaintiff, as alleged in paragraph five of its complaint and as set out in the bill of particulars, the amount being admitted due by the defendant.

Postea.

2. The court finds, as a matter of law, that the plaintiff is not entitled to recover the balance claimed under its contract, to wit, the sum of ten thousand four hundred and fifty-six dollars and fifty-one cents, or any part thereof, as set forth in its complaint, because the road which the plaintiff contracted to be built has never been accepted in writing by the defendant, the Board of Chosen Freeholders, or by the State Road Commissioner.

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3. Plaintiff's counsel requested the court to instruct the trial judge sitting as a jury in this cause, as follows: That the plaintiff is entitled to recover in this case, if the trial court is satisfied under the proof that the work of construction has been performed according to the contract, and this notwithstanding the fact that the defendant and the State Road Commissioner have either or both refused to accept the road or make or give a certificate of acceptance in writing. The court denied this request.

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4. Plaintiff's counsel requested the court to instruct the trial judge sitting as a jury in this cause, as follows: That the plaintiff is entitled to recover in this case if the trial court is satisfied, under the proof, that the work of construction by the plaintiff has been substantially performed under the terms of the contract, notwithstanding the fact that the defendant and State Road Commissioner have refused to accept the road or give a certificate of acceptance in writing; less, however, a proper allowance, against the balance of the contract price admittedly remaining unpaid to cover the difference, between the value of the work done and the cost to the defendant, if any, of making it a full compliance with the contract. The court denied this request.

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5. Plaintiff's counsel requested the court to instruct the trial judge sitting as a jury in this cause, as follows: If substantial performance of the con-

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Postea.

tract has been shown, even though there was failure in some minor particulars, the admitted balance of the contract price remaining unpaid may be recovered, less a fair allowance to the defendant to make good the defects. The court denied this request.

10 5. The court finds that the amount due to the plaintiff, as admitted by the defendant, is the sum of two thousand three hundred and nine dollars and six cents, with interest from January first, nineteen hundred and eleven, being the sum of two hundred and fifty-six dollars and fifty-four cents, making in all two thousand five hundred and sixty-five dollars and sixty cents.

B. A. VAIL,
Judge.

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*Judgment Record.***Judgment Record.**

Filed October 16, 1913.

NEW JERSEY SUPREME COURT.

 DELAWARE RIVER QUARRY AND CON-
 STRUCTION COMPANY,
vs.
 THE BOARD OF CHOSEN FREEHOLD-
 ERS OF THE COUNTY OF HUNTER-
 DON.

*On Postea.**Fort & Fort,
Attorneys.*

10

Judgment entered this sixteenth day
 \$2,565.60 of October, A. D. nineteen hundred and
 46.72 thirteen, for the sum of twenty-five hun-
 dred and sixty-five dollars and sixty
 \$2,612.32 cents damages and forty-six dollars and
 seventy-two cents costs.

20

WM. S. GUMMERE, *C. J.*

I, William C. Gebhardt, Clerk of the Supreme
 Court of the State of New Jersey, do certify that the
 foregoing is a true copy of the judgment entered in
 above stated cause which said judgment is recorded
 in this office in vol. 7 of judgments, page 98.

30

In testimony whereof I have hereunto set my hand
 and the seal of said court at Trenton, this sixteenth
 day of October, A. D. nineteen hundred and thirteen.

WM. C. GEBHARDT,

(SEAL)

Clerk.

40

Exhibit P. 4.

EXHIBIT P. 4.

WHITEHOUSE-LEBANON ROAD.

.....Township

Hunterdon County,

To Del. Riv. Quarry & Constr. Co., Dr.

10

1910—Apr. 6th—First monthly estimate.

3000 cubic yards excavation @ 35 cts.....\$1,050.00

240 tons stone for telford hauled on road @

85 cts 204.00

Cubic yards extra excavation %.....

\$1,254.80

Square yards macadam @.....

Square yards Telford @.....

20 Lineal feet underdrain @.....

Twenty per cent. 250.80

Less twenty per cent.....\$1,003.20

Amount of previous payment.....

Amount due\$1,003.20

Approved, Grant Davis Co., Engineers.

This is a true copy of voucher No. 336.

30

GRANT DAVIS.

All other monthly estimates included in Exhibit P. 4 are in exactly the same form as the above, except that the amounts are different. These amounts are stated in the Bill of Particulars attached to the complaint (page 8).

Exhibit P. 5.

EXHIBIT P. 5.

Below find an exact detailed statement of the cost of the Whitehouse-Lebanon road, Townships of Readington and Clinton, County of Hunterdon, State of New Jersey.

Total length	23,050 feet, or 4.366 miles.
Width of stone-bed.....	14 feet.
Length of stone-bed.....	feet.
Depth of stone-bed.....	Macadam, 6 inches.
	Telford, 11 inches.
Macadam Trapite	27,863 sq. yds. at \$1.0545 total, \$29,381.53
Telford Trapite	8,478 sq. yds. at 1.0545 cents; total, 8,940.05
Macadam driveways ...	814 sq. yds. at 73 cents; total, 594.22
Earth excavation	32,022 cu. yds. at 35 cents; total, 11,207.70
Extra excavation	1,127 cu. yds. at 35 cents; total, 394.45
Macadam wings	
Rock excavation	2,221 cu. yds. at 73 cents; total, 1,621.33
Under Drain	6,392 lin. ft. at 18 cents; total, 1,150.56
Cobble Stone gutter....	380 sq. yds. at 50 cents; total, 193.00

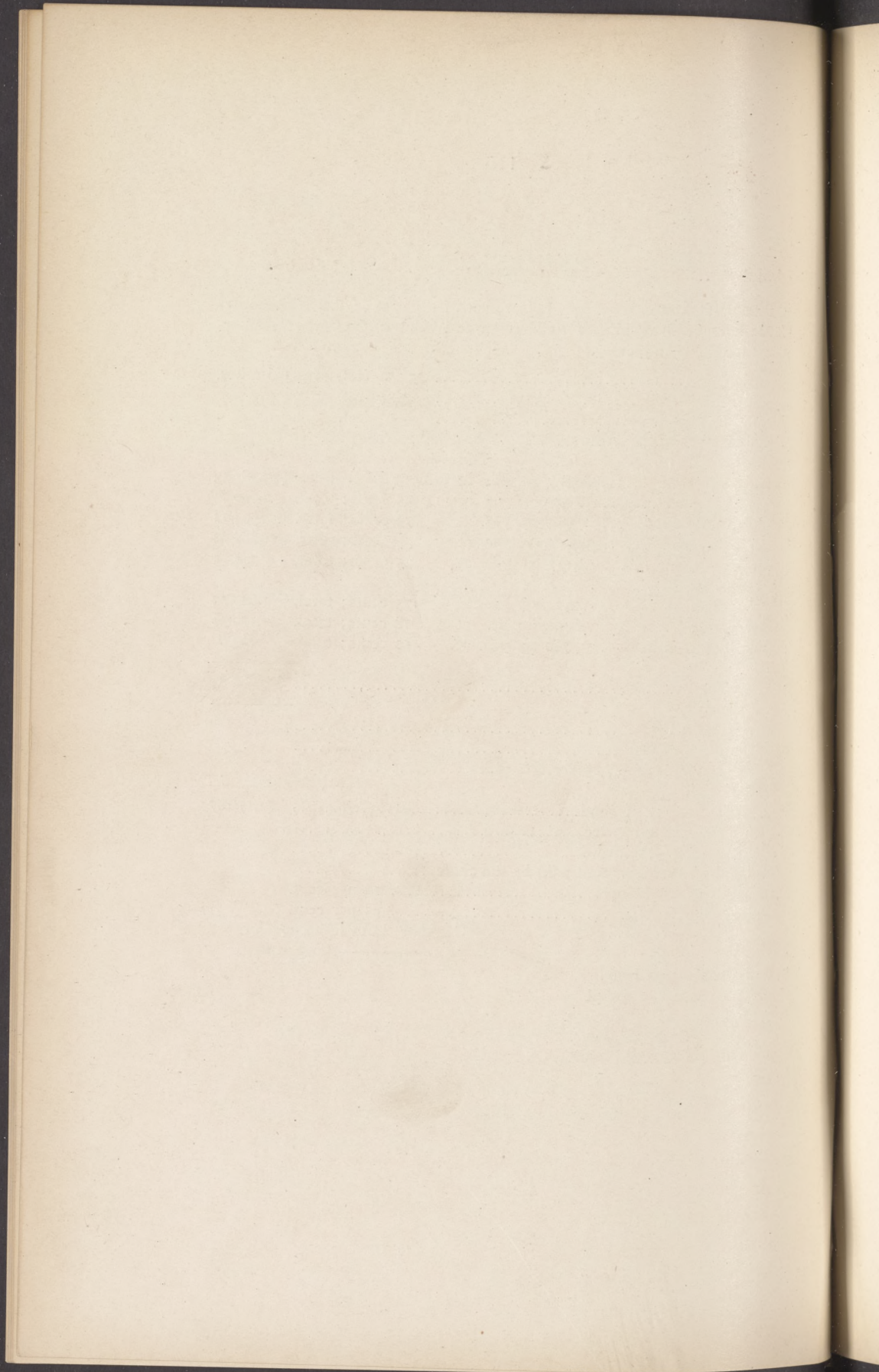
Total	\$53,482.84
-------------	-------------

Supervisor's salary	\$
Engineering expenses	
Extras, paid by county, culverts & pipes.....	

Total cost of road.....	\$1,176.87
Lump sum, contract price.....	\$
Total allowed by the State.....	
One-third of above, amount paid by the State.....	
Maximum grade before.....	12 per cent.
Maximum grade after	5.5 per cent.

GRANT DAVIS, *Engineer.*
 _____, *Supervisor.*

This is a true copy.
 The original is signed
 by Engineer and Supervisor.
 GRANT DAVIS,
Co. Engineer.



New Jersey Court of Errors and Appeals

DELAWARE RIVER QUARRY AND CON-
STRUCTION COMPANY,

Plaintiff-Appellant,

vs.

THE BOARD OF CHOSEN FREEHOLD-
ERS OF THE COUNTY OF HUNTER-
DON,

Defendant-Appellee.

Brief for Plaintiff-Appellant.

Statement of the Case.

The appeal in this case brings before the court for review a judgment of the Supreme Court in a suit brought against The Board of Chosen Freeholders of the County of Hunterdon, to recover a balance due upon a contract for the construction of the Whitehouse-Lebanon Road, in said county. A contract for this work was entered into on the thirteenth day of November, nineteen hundred and nine. The character of the construction was known as trapite. The specifications specifically provided for the details of the construction, and also as to the mixture of which trapite should consist. The contract price was \$51,173.45 and payments were to be made in accordance with the 73rd paragraph of the specifications, which was monthly, to the extent of not to exceed eighty per cent. of the amount of work done in each month. The certificates for payments were to be made by the engineer and supervisor on the work. Fifteen per cent. was to be paid on the completion of the work and the

acceptance of the same in writing by the Board of Chosen Freeholders and the State Commissioner of Public Roads. The remaining five per cent. was to be retained by the Board of Chosen Freeholders for a period of one year, as security for the faithful performance of Section 58 of the Specifications, which provided for the keeping of the road in repair for a period of one year from the date of its completion. The plaintiff claims the work was completed in accordance with the contract on or about December first, nineteen hundred and ten. Regular monthly payments on account were made to the contractor on certificates signed by the engineer and supervisor, amounting to \$40,716.94, the last of these payments being made November thirtieth, nineteen hundred and ten, leaving a balance due on the contract price, for which this suit was brought, of \$12,765.57, besides some extra work, which was not disputed. The controversy was solely over the balance due on the contract price.

At the trial the plaintiff contended that the work had been completed in entire compliance with the terms of the contract and specifications; that the year during which the plaintiff was required to keep the road in repair had expired, and that the whole balance of the contract price remaining unpaid was due and payable. The case was tried before the court, without a jury, and the court found against the plaintiff on its claim for the balance of the contract price, upon the sole ground that there could be no recovery for this balance against the defendant, except and until and after there was produced by the plaintiff an acceptance, in writing, of the work done by the plaintiff, by the Board of Chosen Freeholders and the State Commissioner of Public Roads. The court says (page 108 of the Case, at line 24) :

“Eighty per cent. of the contract price was paid during the course of construction, upon certifi-

ates of the state supervision and the county engineer. At the trial testimony was offered by the defendant to show that the road was not built as required by the contract; and by the plaintiff to show that the contract had been strictly performed. But that question is one that the court cannot consider. The fatal defect in the plaintiff's case is that the road had not been accepted by the Board of Freeholders or the State Road Commissioner. In the absence of fraud no recovery can be had under the contract without the approval of the State Road Commissioner and the acceptance of the Board of Freeholders."

The court declined to consider any evidence as to the completion of the work or the substantial performance thereof, thus holding that the production of the written certificate of acceptance of the Board of Freeholders and the State Road Commissioner was a condition precedent to any right or recovery in the cause; putting its decision upon *Curley vs. Board of Chosen Freeholders of the County of Hudson*, 37 Vr., 401, and *Chism vs. Schippen*, 22 Vr., p. 1.

Question Involved.

The question involved is:

FIRST. Was the court right in holding, under the pleadings in this cause and under the 73rd paragraph of the specifications, that there could be no recovery in this case, even though the contract had been fully performed, without the production of the written certificate of the Board of Chosen Freeholders and the State Road Commissioner; unless fraud were shown in the withholding of such certificate?

The question here raised is shown clearly to be the finding of the court, as will appear by paragraph 2 of the *postea*, at page 111 of the printed case, wherein the court certifies as follows:

"The court finds, as a matter of law, that the plaintiff is not entitled to recover the balance claimed under its contract, to wit, the sum of ten thousand four hundred and fifty-six dollars and fifty-one cents, or any part thereof, as set forth in its complaint, because the road which the plaintiff contracted to be built has never been accepted in writing by the defendant, the Board of Chosen Freeholders, or by the State Road Commissioner."

And by the refusal of the court to find or to instruct itself (while sitting as a jury), as requested by the plaintiff (as appears, by the certificate of the court in the *postea* in paragraph 3, page 111 of the Case).

Brief and Argument.

POINT I.

The first contention is that the fact of the not giving of a certificate in writing, under paragraph 73 of the specifications, is a defense and cannot be raised unless pleaded as a defense to the action.

The Supreme Court, in *Curley vs. Board of Chosen Freeholders of Hudson*, 66 N. J. L., 401, expressly held that a provision, even in a statute, that "no moneys shall be paid to any contractor or person engaged in the building and construction of said road * * * until the bill or claim therefor shall have been approved by the said chief engineer" was a defense. At page 408 of that case the court says:

"As the defense of non-approval was not pleaded, we are disposed to permit recovery if the plaintiff is willing to accept the figures of the chief engineer. Otherwise it is our duty, in view of the wide discrepancy of the estimates, to permit the pleadings to be amended in order to be sure of doing justice to the county."

There is no discrepancy in this case and no dispute about the engineers figures.

A provision in a contract requiring acceptance before payment is clearly a matter which must be pleaded specially and relied upon as a defense, otherwise it will be deemed to be waived.

No such defense is made in the answer in this case. Paragraph 7 of the answer only raises the question as to whether the plaintiff completed its contract and alleges "the plaintiff did not perform its contract and complete and finish said road and furnish and deliver all materials necessary, &c." Paragraph 8 of the answer, which raises a counter-claim, repeats paragraph 7 (just quoted, and then asserts that the said road "has never been completed and finished according to the terms of the contract and specifications, and that the plaintiff used a very inferior quality of material in constructing said road and did not use the quantity of material required under said contract."

The issues thus raised only required the plaintiff to prove that it had completed its contract and kept the road in repair for one year, and the only defense under the pleadings was:

- (1) That the road was not completed according to contract and specifications;
- (2) That the quantity and quality of the material used was not such as the contract required.

The trial judge refused to consider any of these issues raised by the pleadings, and threw out the plaintiff's case *solely* on a ground, not raised by the pleadings, namely: That there had been no acceptance of the road, in writing, by the Board of Freeholders and the State Commissioners of Public Roads.

The position we take seems to us to be strengthened by the fact that the answer sets up a counter claim.

The answer puts the defense, solely, on the fact that inferior quality and quantity of materials were used

and asks that twenty thousand dollars in damages may be allowed.

This amounts to an admission that the plaintiff did the work, but did it defectively, and that there must be an allowance for this defective work by way of damages.

The reply met the counter claim demand by asserting the road was "completed and finished according to the terms of the contract and specifications and used the best quality of material, and the quality and quantity required under the contract."

Two issues were thus clearly raised, and only two, under the pleadings:

(1) Did the plaintiff finish the work?

(2) Did the plaintiff use in the work the quantity and quality of material required by the contract?

That the plaintiff finished the road and that it had been used by the public for two years, and that the plaintiff had kept it in repair all that time, was not disputed at the trial. All the evidence was directed to the question as to the quantity and quality of the materials, and whether the work was done according to contract.

Under the pleadings, if the work was done according to contract, plaintiff was entitled to recover; if it had not been, then, what were the damages the defendant was entitled to be awarded by way of reduction of plaintiff's claim?

This issue the judge refused to pass upon, or even to consider at all.

The judge seeks to sustain his position on the authority of two cases, viz:

Chism vs. Schipper, 22 Vr., 1.

Curley vs. Board of Freeholders of Hudson, 37 Vr., 401.

Of course, if the principle stated in *Chism vs. Schipper* applies, in a case where the condition of the con-

tract requires the certificate of the engineer, but is not set up as a defense to the action, then the trial court in this case was right; unless we can distinguish the case at bar from the Chism case.

If no certificate has been given, and it is intended to rely upon that fact, it seems to us it must be pleaded as a defense, otherwise we have no notice that this fact is to be insisted upon.

If there be a general averment of performance of the conditions precedent, a general denial is not good; the opposite party, if he means to contest the performance of condition precedent, has the duty of setting out a condition he contests, as well as the duty of denying its performance.

Vail vs. Penna. Fire Ins. Co., 38 Vr., 422.

Hecht vs. Taubel, 26 Vr., 419.

Herman vs. Supreme Lodge, 37 Vr., 77 (78).

Supreme Assembly vs. McDonald, 30 Vr., 248 (252).

Practice Act, sect. 118; Rev. 1903 P. L., p. 570.

Also new Practice Act, Laws 1912, p. 231.

Dimick vs. Met. L. Ins. Co., 38 Vr., 367.

Vreeland vs. Beekman, 7 Vroom, 1.

In the case at bar, the only defense pleaded is that we did not furnish either the quality or quantity of material required by the contract. Surely we should not be required to meet anything else.

If the defendant intended to take advantage of the fact that the condition precedent to the right of the plaintiff in this case to recover, namely, that the plaintiff had failed to obtain a certificate from the Board of Chosen Freeholders or the State Road Commissioner, he should have pleaded it as a defense to a complaint averring full performance; and if not pleaded, it is deemed to be waived, and the trial judge in this case in putting the defense to the action, solely, on the ground that this certificate had not been obtained, went outside the pleadings in the cause and

allowed the defendant a defense which, without being pleaded, could not be taken advantage of by the defendant.

This was such error as entitles the defendant to a reversal.

POINT II.

By the terms of payment under the contract and specifications in this case, eighty per cent. of the work done was to be paid each month as the work progressed; fifteen per cent. at completion of the work and its acceptance, in writing by the defendants and the State Commissioner of Public Roads. Five per cent. was to be retained for one year for the faithful performance of paragraph 58 of the specifications.

The time and method of payment is set out in paragraph 73 of the specifications:

PAYMENTS.

"73. Monthly payments will be made by the Board of Chosen Freeholders to the contractor for work performed, upon presentation by him of the proper certificates of the engineer and supervisor, in a sum not to exceed eighty per cent. of the amount then due, together with releases from all liens, if required. Fifteen per cent. will be paid at the completion of the work and the acceptance of the same in writing by the Board of Chosen Freeholders and the State Commissioner of Public Roads. The remainder or five per cent. will be retained by the Board of Chosen Freeholders for a period of one year as security for the faithful performance of article 58."

Paragraph 58 reads as follows:

"The contractor shall keep the finished roadway, shoulders, side slopes, ditches and under-

drains in repair for the period of one year from the date of its completion and acceptance, and, in addition thereto, for as much longer as for any period or periods during said year it shall be out of proper condition. If during that time, the roadway or any part of the work shall, in the judgment of the engineer and the Board of Chosen Freeholders, require repairing, and they shall duly notify the contractor to make such repairs as required, and the contractor should refuse or neglect to do so to the satisfaction of the said engineer and the Board of Chosen Freeholders, *within five days* from the date of service of notice, then the said Board of Chosen Freeholders shall have the right to have the work done by other proper parties, and to deduct from any moneys due to said contractor an amount sufficient to cover the cost of said repairs, and if there be no money due to said contractor, then the said Board of Chosen Freeholders shall have the right to maintain an action against the surety of said contractor for the recovery of the cost of said repairs."

Our first contention is (conceding for this point that acceptance is necessary), that the defendants did accept the road and agreed by resolution with the plaintiff to do so on December 29th, 1910. That agreement of acceptance was without reservation or reserve. That at the same time and by the same resolution the defendant agreed to pay five per cent. of the twenty per cent. of the contract price, then withheld under the contract, and retain fifteen per cent. instead of five, as provided by the contract, for one year as surety for the full completion of the work, against the requirements of paragraph 58.

[This resolution is found at page 64 and 65 of printed case.]

By an examination of the record at the time the resolution of December 29th, 1910, was passed, it will be noted that it was passed after full investigation and a long controversy over the final payment. (Case, pages 61, 62, 63, 64 and 65 and the minutes of two meetings of defendant's board, one held December 22nd and the other December 29th, found at the same pages.) It will be noted, also, that by the defendant's admission, by the minutes put in evidence, that the president of the plaintiff company appeared before the board and requested that a resolution be passed to accept the road and expressing a willingness to have the percentage to be held back for one year, as provided for under paragraph 73 of the specifications, increased from five to ten per cent., and it appears, also, by the minutes of the defendants in the record that the president of the plaintiff company was in attendance at both the meetings on December 22nd and 29th, and the resolution of December 29th was passed evidently after full conference between the plaintiff and defendant. It was intended by the defendants to be and was accepted by the plaintiffs as a modification of the contract of November 18th, 1909, and of paragraph 73 of the specifications. This resolution resulted in the defendant agreeing to forthwith pay five per cent. and requiring a hold back of fifteen per cent. for one year, just reversing the method of payment provided in paragraph 73 of the specifications. This five per cent. was not paid in accordance with the acceptance and arrangement made on December 29th, 1910, as shown by the minutes of that date, and we were in a position at this trial to recover five per cent. of the original contract, it seems to us, without possible defense against such recovery. This resolution, found at page 64, and on, is so vital, as we think, to the question at issue, that we print it in this brief in full, as follows:

"Whereas, the road beginning at the intersection of macadam road running through Whitehouse Station on the Easton and New Brunswick Turnpike, and running over said turnpike through the Townships of Readington and Clinton to a point in the village of Lebanon, having been completed under the contract for the construction of said road, and

Whereas, State Road Commissioner has expressed his willingness to accept said road by the County of Hunterdon retaining more than the 5% required to be retained upon the acceptance of the road under the contract, because of certain defects being apparent in the surface or finish of said road, but believing that the quantity of material required was placed in said road and the apparent defects in surface or finish of the same not being detrimental to the road or road-bed itself, and

Whereas, believing the county to be secured by the retention of 15% of the cost of construction of said road and the bond of the contractor, the Delaware River Quarry and Construction Company, attached to said contract, and that said road should be properly constructed and to repair all defects now appearing or that may appear within one year from the date of the acceptance of the road, and that it, the Delaware River Quarry and Construction Company, will keep said road in repair for one year from the date of acceptance, and

Whereas, in the judgment of the Board of Chosen Freeholders, under the verbal acceptance of the State Road Commissioner Gilkyson and the certificate of I. H. Higgins, supervisor, and Grant Davis, county engineer, that the road is completed,

Wherefore be it resolved, that the Board of Chosen Freeholders accept the road beginning at the intersection with the road known as the Flemington and Whitehouse Road, where the same leaves the Easton and New Brunswick Turnpike, and running through the Townships of Readington and Clinton, ending in the village of Lebanon, in the Township of Clinton, and

Be it further resolved, that the Board of Chosen Freeholders *pay to* the Delaware River Quarry and Construction Company the balance due to it under the contract for the construction of said road, less 15%, which is to be retained by the county for one year from this date, when the road is to be inspected for final acceptance, and if the same has been kept in repair by the Delaware River Quarry and Construction Company and is in all respects in full compliance with said contract, the same to be accepted and the fifteen per cent. paid to the Delaware River Quarry and Construction Company.

It is clearly within the power of the Board of Freeholders, the defendants in this case, to modify the contract of November 18th, 1909, in any respect touching the payments, so long as the modification did not violate the requirements of section 3 of the Act of 1905, page 96 of the Laws of 1905, which provides "that at least five per cent. of the contract price shall not be paid to the contractor until after the expiration of one year from the completion of the contract and acceptance thereof in writing." When, by the minutes of December 29th, the defendants changed the percentage which should not be paid to the contractor until expiration of one year from five per cent. to fifteen per cent., they did no harm to the State. On the other hand, they protected it. The defendants themselves (the State not being harmed or interested in the change), cannot object to it for they made it.

As to this five per cent. which was agreed to be paid by the defendant on December 29th, 1910, we contend that we are entitled to recover it in this action, irrespective of any question in this case relating to acceptance by the State Road Commissioner. Under the terms of the resolution of December 29th, their promise to pay the five per cent. was forthwith enforceable against the defendant in this suit.

This also is sufficient error for a reversal.

POINT III.

Substantial performance of the contract being shown, the plaintiff was entitled to receive for the whole amount of his claim, less a proper allowance to the defendant to cover the difference, if any, between the value of the work done and the cost to the defendant, of making it a full compliance with the contract.

(See requests in *postea*, p. 111 of case.)

Under the pleadings and proof in this case the production of a certificate of acceptance, in writing, from the Board of Chosen Freeholders and the State Commissioner of Roads was not necessary.

This is not a case like the *Chism* case, where the decision of the arbiter to give the certificate is made "final and conclusive" upon the question of the right of payment.

Neither the Board of Freeholders nor the State Road Commissioner can hold up a claim *arbitrarily*. The rule in the *Chism* case should be held to the cases directly analogous to the facts in that case. In that case a building contract was sued upon, which provided for a third party (the architect), as the arbiter of all disputes that should arise, and declared that upon such questions as "the true construction or meaning of the drawings or specifications," the said architect was "to decide the same, and his decision should be final and conclusive." The language of the contract

before us, as found in the 73rd section of the specifications attached to it, on this point is, that 15% shall be paid at the completion of the work and "the acceptance of the same, in writing, by the Board of Chosen Freeholders and the State Commissioner of Public Roads." This clause, it will be noticed, applies only to the payments. It does not relate to the work or its character, or as to any dispute which might arise over it. There is no judicial function given in the language last quoted. Neither the Board of Chosen Freeholders nor the State Road Commissioner are made arbiters in any sense under this contract. There are no allegations that their decision, whether honestly or fraudulently made, shall be final or conclusive upon the parties. There are no statements in the contract that the work should be done to the satisfaction of the Board of Freeholders or the State Road Commissioner. The language is, to requote it, "15% will be paid at the completion of the work and the acceptance of the same, in writing, by the Board of Chosen Freeholders and the State Commissioner of Public Roads." No certificate which the Board of Freeholders or State Road Commissioner could refuse to make could prevent at the trial the establishing by evidence the fact of "the completion of the work." The language used in the contract before us does not make the acceptance in writing so essential that a suit may not be maintained even in case of non-acceptance, nor does it require that fraud should be shown in refusal to accept. It may raise a question as to whether the refusal to accept was reasonable, but then only, in our judgment, if the fact of the non-acceptance in writing is pleaded as a defense.

Public Road cases should not be considered analogous with building contracts, and the like. The work under a road contract, done upon a public highway, is laid at the risk of the contractor and cannot be removed by him. The public enter upon it and use it

and take the labor and material of the contractor. The value of his work should be paid. When he has completed his contract he has done all that he can do, and if it appears that there is substantial performance he should recover. Substantial performance of a contract of this character, even though there be failure in some minor particulars, entitles the contractor to recover the contract price, less a fair allowance to the owner to make good any defects.

Feeney vs. Bardsley, 37 Vr., 239 (C. of E.).

In the case of *Dyer vs. Lintz* (47 Vr., 204), there was an action upon a contract for laying of a concrete walk. Mr. Justice Voorhees said, speaking for the Supreme Court, that the work had been substantial performed, even though not completed in a workmanlike manner, and he held that the contract price could be recovered, less a fair allowance to make good the defect, "although the work has not been accepted"; and he makes a further statement that acceptance of such work is immaterial except in an action to recover upon a *quantum meruit*, as follows:

"Where the labor and materials of a contractor go to form an addition affixed to lands, the right of the owner of the lands to refuse to accept such work cannot well be exercised without doing injustice to one party or the other. Hence, in such class of contracts the rule requiring an absolute completion of the contract before the right to payment could be enforced has been modified."

citing *Bozarth vs. Dudley*, 15 Vr., 304.

The United States Circuit Court of Appeals, in the case of the *City of Elizabeth vs. Fitzgerald*, 114 Fed. Rep., 547 (same case 52nd Circuit Court of Appeals, 321), Judge Dallas, speaking for that court, said:

"The jury having found that the plaintiff did his work substantially according to the contract, a sufficient compliance therewith on his part was competently ascertained. The rule is that a sub-

stantial performance must be established to entitle the party claiming the benefit to recover, but this does not mean a literal compliance as to all details (citing cases). Whether alleged defects are substantial or unimportant is a question of fact for the jury. Substantial performance of the entire contract is sufficient, and the jury may properly so find."

And in the same case the judge says:

"In doubtful cases courts have been inclined to construe agreements of this class as agreements to do the thing in such a way as reasonably ought to satisfy the defendant."

This is a most illuminating case, and three very distinguished judges sat in it, Judge Acheson, Judge Dallas and Judge Gray. It was a contract to pave a street. The case is on all fours with the case at bar. There was a provision in the contract for the "approval and acceptance" of the work by the committee on Streets and Parks, as well as by the Street Commissioner and Inspector, and it appeared in the case that "approval and acceptance" had been refused, so the court said "the only question submitted was were they unreasonably refused?" The court held that the refusal of the several boards and officials to approve and accept did not deprive the plaintiff of the right to recover for work where it had been done in substantial conformity with the contract, because the city's officers arbitrarily or unreasonably refused the certificate and approval called for. Judge Dallas approves the following statement as the law in such a case as this:

"When the consideration furnished is of such a nature that its value will be lost to the plaintiff, either wholly or in great part, unless paid for, a just hesitation must be felt, and clear language required, before deciding that payment is left to the will, or even to the idiosyncracies of the

interested party. In doubtful cases courts have been inclined to construe agreements of this class as agreements to do the thing in such a way as reasonably ought to satisfy the defendant."

The court, to sustain this text, cited the following cases:

Hawkins vs. Graham, 149 Mass., 284.

Welch vs. Hubschmitt Co., 61 N. J. Law, 57.

Elevator Co. vs. Clark, 80 Fed. Rep., 507.

Mitchell vs. Dougherty, 90 Fed. Rep., 9639.

In *Welch vs. Hubschmitt Co.*, *supra*, Justice Van Syckel wrote the opinion of the court, and he there, at page 64 of the case, refers to the doctrine of *Chism vs. Shipper* (22 Vr., 1) *supra*, in which he says in that case, the contract only makes the architect's certificate conclusive "on questions whether work done in the course of the erection of the building are within the specifications or not," and declares in that case that the certificate was only conclusive as to the plans, the style, the measurements and the way in which the building should be constructed, and says:

"But the workmanship and materials with respect to their character and quality, must, according to the specification clause, have the approval and acceptance of the owner and the architect. * * * Whether, in the exercise of a fair and reasonable judgment, the owner and architect should approve and accept the work and materials is a question which the defendant has a right to submit to the jury."

In the case of *MacKnight Flintic Co. vs. The Mayor*, 160 N. Y., p. 72, the facts are almost parallel with those in this case, and they are stated by the court, speaking through Judge Vann, who wrote the opinion, as follows:

"The work was done under the superintendence of the engineer who drew the specifications and the superintendent of public works, both of

whom were officers of the defendant. An inspector was also appointed, who examined the work every day as it progressed and passed on the materials that were used. No objection was ever made by any representative of the city to the method of doing the work or to the materials used, and no request was made to remove any of the materials or to do any part of the work in a different manner. Evidence was given tending to show that every requirement of the plans and specifications as to materials furnished and work done had been literally complied with, except that more work was done and more materials used in some places than the contract called for."

And then again, at page 86, the court summarizes its conclusions, as follows:

"If the work was faithfully performed according to the plan and specifications, and the failure to secure a water-tight boiler room was wholly owing to the defective design of the defendant, the plaintiff would be entitled to recover notwithstanding the refusal of the superintendent to give the required certificate, for under those circumstances it would be his duty to give it and a refusal to do so would be unreasonable."

POINT IV.

It is contended that this contract, being awarded under the act of 1905, chapter 58 (P. L., p. 94), the obligation for written acceptance is a statutory one, and hence the written acceptance is imperative.

The part of the statute to which reference is made is the last clause of section 3 of the act of 1905, which reads as follows:

"The time and manner of payment for work done under any contract awarded under this act

shall be set forth in the said contract, and at least five per centum of the contract price shall not be paid to the contractor until after the expiration of one year from the completion of the work and acceptance thereof in writing by the Commissioner of Public Roads."

Our contention is that this provision of the statute has no bearing on this case, that the statute simply casts an obligation upon the State official who aids in awarding a contract under this statute to see that this provision is "set forth in said contract." The language of this clause is very plain, and it is evident that the only purpose of it was to cast an obligation upon the person making a contract under the act to set forth the terms of this clause of the statute in the contract, but the statute itself is no part of the contract sued on here, and because the language of the payment used in this contract is the language of the statute, that does not of itself make the requirement for acceptance a statutory one, but after the statute has been complied with by the official representing the State by putting this requirement into the contract, the fulfilment of those requirements become obligations of a contract, and not statutory obligations. The statute requires specifically that "the time and manner of payment for work done," etc., shall be set out in the contract, and then, at the last clause of it, simply says that the time and manner fixed in the contract as required by this clause of the statute shall provide at least five per centum of the contract price shall not be paid to the contractor until the expiration of one year from the completion of the work and acceptance thereof, etc. These provisions were embodied in the contract sued on in this case, and this statute by that act was complied with and the question is now a question of the obligation of this contract the same as if the statute in this case had not existed.

CONCLUSION.

In this case the proof shows, the State Road Commissioner in his testimony admitting it, that more material was used and a greater depth of road was made by the contractor than the contract required. There was no evidence put in by the defense to show that there was not a substantial compliance with the contract. There was some testimony on the trapite feature, which relates to the covering of the road, and is about two inches of top dressing or blanketing upon the highway. The trapite was shown to have been constructed exactly in accordance with the formula set forth in the specifications, which specifications were drawn by the County Engineer, and as the Court of Appeals of New York State, in the case above cited, in 160 N. Y., page 72, if the work was faithfully performed according to the specifications and the product was imperfect because of defective design (in this case formula) of the defendant, the plaintiff would be entitled to recover without the written certificate, because under such circumstances, it would be the duty of the engineer to give the certificate, and a refusal to do so would be unreasonable. This view must be right, because if a person construct a road or other public work on plans and specifications prepared by the defendant, and the construction is faulty through the plans, which the contractor was bound to follow, he surely should not lose his pay through the total fault of the engineer, first in drawing the specifications imperfectly, and secondly, refusing to give his acceptance because the work, though in exact conformity with the specifications, was not, in his judgment, what it really should have been if the specifications had been properly drawn.

Fuller Co. vs. Young, 126 Fed. Rep., 346.

If a public highway may be laid under specifications prepared by a public official, and certificates

given every month for 80% of the work as it progresses, and when the road is completed refusal be made to give a certificate to pay for complete performance, and the public still keep the work, labor and materials unpaid for because of a refusal of its agent to give a certificate, then, indeed, the lot of a contractor is a hard one. It does seem that the true rule in such a case, and the honest one, is that stated in the case of the *City of Elizabeth vs. Fitzgerald, supra*, namely, when the consideration furnished is of such a nature that its value will be lost to the plaintiff, either wholly or in great part, unless paid for * * * unless clear language is employed to justify such a result, the payment should not be left to the will of an interested party. The testimony in this case shows that the plaintiff spent, in trying to satisfy the defendants in addition to the contract price, over ten thousand dollars in keeping this road in repair for a period of two years when the contract only required he should do so for one.

We submit substantial performance was shown and the judge should have considered that proof, and for the refusal to do so and for the other reasons here stated a new trial should be granted.

FORT & FORT,

Counsel for Plaintiff-Appellant.

New Jersey Court of Errors and Appeals

DELAWARE RIVER QUARRY AND
CONSTRUCTION COMPANY,
Plaintiff-Appellant,

vs.

THE BOARD OF CHOSEN FREE-
HOLDERS OF THE COUNTY
OF HUNTERDON,
Defendant-Appellee.

Action at Law.

On Appeal from Su-
preme Court.

Brief for Defendant-Appellee

This is an action brought by the Plaintiff to recover balance due upon contract for the construction of the Whitehouse-Lebanon Road in the County of Hunterdon, under state plans and specifications with material designated as Trapite, and the Defendant refuses to pay the amount claimed to be due by the Plaintiff under the contract, because it is alleged the Plaintiff has failed to construct the road in accordance with the plans, specifications and contract, and therefore was never accepted in writing by The Board of Chosen Freeholders of the

County of Hunterdon or the State Commissioner of Public Roads.

The contract was prepared under the provisions of an act of the Legislature P. L. 1905, page 94. Under Section 3 of this act it becomes necessary under the following language at the bottom of Section 3, page 96, for the road upon completion to be accepted in writing, viz:

“The time and manner of payment for work done under any contract awarded under this contract shall be set forth in said contract, and at least five per cent. of the contract price shall not be paid to the contractor until after the expiration of one year from the completion of the contract and acceptance thereof in writing by the Commissioner of Public Roads.”

Under Section 73 of the specifications attached to and made a part of the contract (see page 16, under head of payments), the amount to be paid contractor during construction and manner of payment is fully set out.

The law above quoted requires a final acceptance in writing for the final payment to the contractor, to wit: five per cent., and that to be upon the written acceptance of the State Commissioner of Public Roads.

Under Section 73 in the specifications attached to and made a part of the contract, eighty per cent. of the contract price was paid during the course of construction of said road upon certificates of the State Supervisor and the County Engineer, twenty per cent. being retained until the acceptance in writing as therein required by the State Road Commissioner and The Board of Chosen Freeholders. This written acceptance was never given because the road was never completed, and so acknowledged by the Plaintiff, as appears in the following:

On the 22nd day of December, 1910, the President of the Plaintiff Company appeared before The Board of Chosen Freeholders and requested that a

resolution be passed by it to accept the road conditionally, that was to retain at least ten per cent. of the cost of construction instead of five per cent., as required by the contract and specifications, because of the defects in the road, admitted by the President of the Plaintiff. See minutes of The Board of Chosen Freeholders of December 22nd, 1910, page 61. No acceptance was made by The Board of Chosen Freeholders, but upon motion the matter was deferred until December 29th when the matter was to be considered at a special meeting and an inspection of the road made.

On the 29th day of December The Board of Chosen Freeholders met Robert A. Montgomery (see minutes of The Board of Chosen Freeholders December 29th, 1910, page 61, line 33), President of the Plaintiff Company, and went over the road, and at his suggestion and with his consent for the Company, the balance then due upon the contract, to wit: twenty per cent., was retained by the Defendant, and the road was not accepted in writing as a completed road by The Board of Chosen Freeholders and the State Road Department, as required under Section 73 of the specifications. All that was done at that meeting was to fix a time at which the Plaintiff Company should complete the road in accordance with the contract so the same could be accepted in writing by The Board of Chosen Freeholders and the State Road Commissioner and the amount due, to wit: twenty per cent., paid, as required by Section 73 of the specifications attached to and made a part of the contract, and Section 3, P. L. 1905.

The following year, 1911, the Plaintiff undertook to complete the road according to contract (see testimony Edwin A. Stevens, page 66, inclusive), and in the month of September, 1911, the Plaintiff Company through its President, Robert A. Montgomery, notified the State Road Commissioner and The Board of Chosen Freeholders that the road was completed and ready for inspection and acceptance.

(See testimony Edwin A. Stevens, page 67, beginning line 32). A visit was made to the road and samples of the Trapite taken from the road at numerous stations, and an analysis made of it and found to be not in accordance with the sample laid on the Ringoes road (laid under a supplemental agreement between The Board of Chosen Freeholders of the County of Hunterdon and the Delaware River Quarry and Construction Company, see page 55, line 23), and the road was never accepted as required under Section 73 of the contract and Section 3, P. L. 1905, page 94.

In the absence of fraud or of an ulterior motive on the part of the State Road Commissioner and The Board of Chosen Freeholders in failing to accept, there can be no action maintained against The Board of Chosen Freeholders for the amount claimed to be due under the contract, and in this case it is clearly shown they were justified in not accepting, as the analysis shows a very defective and inferior road, and not the road agreed upon. (I refer to *Curley vs. The Board of Chosen Freeholders of the County of Hudson*, 66 N. J. Law, page 401.) *Chism vs. Scheppen*, 51 N. J. L., P. 1. *Gervish vs. Herold*, 82 N. J. L., 605. *Potter Press Works vs. Daily Advertising and Publishing Company*, 82 N. J. L., 671.

I do not think that any case to which the Court has been referred by the counsel of the Plaintiff touches the point of the acceptance of the road by discretionary power when the proof shows as in this case that an honest discretion was exercised in the matter.

The further point made by the counsel of the Plaintiff, that because the Defendant did not show the damage it has sustained by reason of the failure of the Plaintiff to construct the road in compliance with the contract, and failing to show damages sustained by the Defendant the Court must render a verdict for the amount claimed by the Plaintiff. All

I desire to say upon that point is that this is not a suit for quantum meruit, but it is an action to recover the amount due upon a contract alleged to have been completed, and the only defense that the Defendant has is to show that the Plaintiff has not completed the work in compliance with the contract, and therefore is not entitled to compensation further than he has received until the road is completed in every detail as required by the plans, specifications and contract, and accepted by the State and County authorities in writing. (See testimony Col. Stevens, pages 66-72.)

When bids were asked for the construction of the Whitehouse-Lebanon Road, several methods of construction were asked for (see minutes of The Board of Chosen Freeholders, page 50, line 20.) Among them were Amesite, Warrenite and Trapite, each of which it was understood to be copyrighted or patented.

All the information that the State or County had as to what the various materials were, were the ingredients fixed in the various specifications by the owners of the various methods. As to the mixture, it was unknown to both the State and the County. The Plaintiff being the lowest bidder for the construction of the road with one of the three materials, above referred to, to wit: Trapite, and it being a new material, never having been used, but the specifications (see specifications, page 12, line 3) showed it was a pavement that was waterproof and dustless, and contained asphaltic cement, sand of satisfactory grading and grain, filler consisting of finely powdered mineral material, and trap rock run of the crusher up to one inch, and per cent. of bitumen in the asphalt cement shall in no event fall sixty per cent. below, shall not be affected by the action of water, oxidize, nor be susceptible to atmospheric influences. (See page 12, line 3, etc.) That was all the knowledge the State Road Department and The Board of Chosen Freeholders had as to what Trapite

was; that is, the ingredients, not the formula.

Before the approval of the contract, the Plaintiff, on the sixteenth day of December, 1909, (see minutes of The Board of Chosen Freeholders December 16th, 1909, page 52, line 30. See also supplemental contract between The Board of Chosen Freeholders and the Delaware River Quarry & Construction Company, page 55, line 22), entered into an agreement with The Board of Chosen Freeholders, approved by the State Road Commissioner, to place a piece of Trapite constructed under the specifications with the ingredients above mentioned upon the Ringoes-Lambertville Road, which was to be a sample of Trapite and in every particular the sample of the road to be constructed under the contract now in question, which upon analysis shows the amount of bitumen, the quantity of stone, the sand and the filler. And we find under the analysis of the sample laid on the Ringoes-Lambertville Road (See testimony of Robert B. Gage, page 76-91) that Trapite is a pavement that belongs to the general class of bituminous pavements, known as bituminous concrete pavements, such as Warranite, Filbertine or Amiesite, which are of the same general type of pavement.

Refer to testimony Robert B. Gage, page 76-91. Trapite is composed of a mineral aggregate bound together with bituminous cement, and the aggregate in this particular pavement consists in part of stone of different sizes. If the aggregate was all sand with the addition of some rock powder, the pavement should have been known as a sheet asphalt pavement. But the Trapite specifications say of what a Trapite pavement is composed and what its properties are, because at the very beginning of the specifications the pavement is defined as being waterproof and dustless (page 12, line 4), and I want to call the Court's attention to these two words. There are a great many things that might have been said regarding this pavement, yet these

two particular words have been selected, and we have every reason to believe that they were selected for a definite reason. Mr. Montgomery, when he drew these specifications, as he testified that he did (pages 21 to 38), knew that a bituminous pavement, if it is to be of any value whatever, must be water-proof; that is, it must be of such composition that it cannot easily be attacked by water solutions; consequently, it must not be porous or of such a nature that these solutions can gain easy access to the components therein. Since Mr. Montgomery, the President of the Plaintiff Company, is a practical road builder (see testimony of Robert A. Montgomery, page 21-38), and understands the nature of all bituminous pavements, and also understands the conditions that must be secured if the pavement is laid that will prove durable and satisfactory, we see the wisdom he exercised in selecting this particular word, and we are forced to admit that it was not any accident on his part in the selection of this particular word for the purpose for which it has been used.

In the next place, the pavement is defined as being dustless. (See page 12, line 4). This at first sight might appear impossible, but if we would examine the conditions in detail, we would see that such is not the case. If the Court would compare the dust that is produced by the passing of an ordinary automobile over a macadam road with that similarly produced on a Trapite Road, you would say at once that the latter road is practically dustless. The dust produced on a macadam road comes from the powdering of the ingredients therein by the action of traveling. In a Trapite road there is practically no dust whatever produced in this manner. About all the dust on a properly constructed Trapite road would be that carried on to the pavement by wind, water or travel, and not the dust produced by the abrasion of the pavement itself.

Now let us see what the specifications say Trapite really consists of. (See page 12, beginning line

3-11.)

1st, an asphaltic cement.

2nd, sand of satisfactory grading and grain.

3rd, filler, consisting of finely powdered mineral material.

4th, trap rock, run of crusher up to one inch.

These are the materials which must be used in a Trapite pavement according to the specifications. The only place in the specifications in which there is any mention of the manner in which this material shall be combined, is the statement depending upon their character. Since the material is defined above as being the run of crusher from a trap rock quarry, the character of the same will be a fairly uniform product. It will not vary much from day to day; consequently, if the Ringoes pavement is the original real Trapite pavement, which Mr. Montgomery testified was the case (see testimony of R. A. Montgomery, page 21-38), then it must consist of the run of crusher and the materials above specified.

Since the specifications say a Trapite pavement shall consist of asphaltic cement, sand, filler and trap rock run of the crusher, and does not define how these different ingredients shall be compounded to produce a Trapite pavement of the proper composition, the only method by which we can find out the real manner in which these ingredients were compounded to produce such pavement is to secure a sample of such pavement which we know is a real Trapite pavement and of the right composition, analyze this pavement and determine the percentages of the different ingredients therein. This is the method we have adopted, (see testimony of Col. Edwin A. Stevens, page 66-72, and R. B. Gage, page 76-91), and since the Ringoes pavement is a real Trapite pavement, as testified to by Mr. Montgomery, and defined by the supplemental agreement attached to the specifications, we are justified in selecting this particular pavement for the sample in order to determine the composition of a real Trapite

pavement.

In order to separate the rock in this pavement from the sand, we have selected a screen of an arbitrary size, viz: one-eighth inch. We might have selected a screen of a little larger or smaller size and called the constituents passing through such screen "sand" and those retained on it "rock". The particular size we selected was a screen containing one-eighth inch circular openings. We could have used a ten-inch mesh screen or one containing three-sixteenth inch circular openings, yet either of these latter two differ from the former such a small amount in size that they would not affect the real results in the least. As a general rule, material small enough to pass one-eighth inch circular openings is defined as being "sand", while material larger than these openings is known as rock or gravel. In the run of the crusher from one inch down as defined by the specifications "rock", sand and some filler are produced, consequently this is the only method that can be used to separate the different ingredients which are produced in the run of the crusher from one inch down. And I now want to call your attention to the difference in the Trapite of the Ringoes Trapite pavement and that laid on the Whitehouse-Lebanon road. (See testimony of L. B. Gage, page 76-91.)

The Trapite laid on the Ringoes road under analysis shows that it is composed of a mineral aggregate bound together with bituminous cement in such a manner that the resulting mixture was dense, waterproof, voidless, tough, more or less elastic and not brittle, and it contains 6.3 per cent of asphalt and 59.5 per cent. of Trapite too large to pass the one-eighth inch circular openings, and it is waterproof and dustless. While the samples taken from the Whitehouse-Lebanon road in the month of September, 1911, (see testimony of Col. E. A. Stevens, page 66-72, and R. B. Gage, page 76-91), when the Plaintiff notified the State Road Commissioner and The

Board of Chosen Freeholders that the road had been completed, and upon analysis of the samples (eleven in all) shows that they contain only 4.43 asphalt and 86 per cent. of stone larger than one-eighth circular openings. And it certainly is not the same pavement, the standard of which was fixed by Trapite laid under supplemental contract and became a part of the plans and specifications. It is not the same pavement nor can both of these pavements be waterproof. If the pavement prepared from the above-mentioned ingredients, compounded as first stated, is the composition of the real Trapite pavement, the one defined and specified by the specifications in the supplemental contract, the specifications attached to the regular state specifications and used for the construction of the Whitehouse-Lebanon Road, then the construction of the second composition above stated is not the pavement specified, defined and contracted for in the specifications used in the construction of the Whitehouse-Lebanon pavement.

By using the Ringoes pavement as the standard, which was agreed by the supplemental contract and made a part of the plans and specifications, which was testified to by Robert A. Montgomery (page 21-25) as a proper Trapite pavement and the same pavement that he contracted and agreed to build on the Whitehouse-Lebanon road, then from the analysis as shown that that road, the average composition of which contained 6.3 per cent asphalt and a mineral aggregate of 59.5 per cent. of material which is too large to pass a one-eighth inch circular opening, and all the samples can be cut out of the pavement without breaking and are found in good condition, dense, compact and nearly voidless, and in order to more plainly show the structure of these samples they were sawed into sections. And you must remember that the sample of pavement laid on the Ringoes road was laid under very bad conditions, being laid in the fall during cold, wet, snowy

weather. (See R. A. Montgomery's testimony, page 21-25.) We could hardly expect a pavement laid under such conditions to be a first-class one or equal to the same pavement laid under favorable conditions, yet this sample pavement has proven very satisfactory, has never been repaired and is today in fairly good condition notwithstanding that it has been coated with a dust oil once or twice when the road adjacent was similarly treated to settle the dust, which has been proven by the testimony of Mr. Meeker (page 93-96), is a detriment and not a benefit as the samples show.

Now, with the series of samples taken from the Whitehouse-Lebanon pavement as testified to by the members of the State Road Department (page 66-72 and page 76-91), of the nine samples secured only two were bonded together sufficiently strong to permit a sample being taken without the pavement crumbling to pieces. The only one that could be sawed was cut into sections as above stated.

I want to call the Court's attention particularly to the difference in structure between these samples similarly secured from the two different pavements. In the one case we have a close grained, dense, waterproof sample taken from a road after being in actual service since the fall of 1909, while on the other hand we have an open structure full of voids loosely held together that can in no way be considered waterproof. Samples secured from the Whitehouse-Lebanon pavement all crumbled to pieces on being cut out with the exception of one which apparently shows without analysis that it is much poorer in quality and not to be compared to the worst sample secured from the experimental Trapite pavement on the Ringoes road, which was constructed as stated before, under unfavorable conditions during the fall of 1909, and which has been in constant use until the sample was secured.

While the analysis shows that the Whitehouse-Lebanon pavement contains an average bitumen

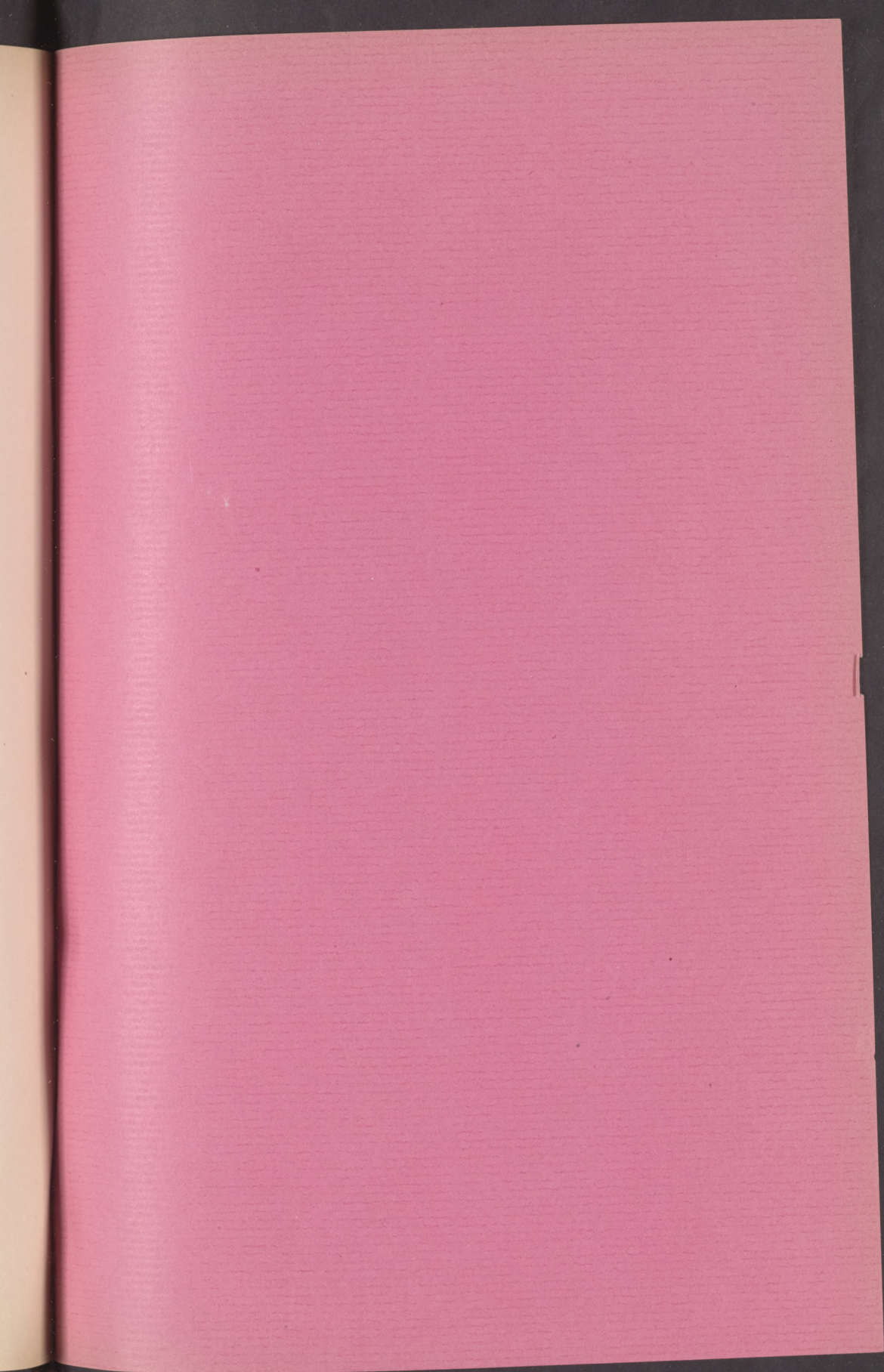
content of 4.43 per cent. and 86 per cent. of trap rock larger than one-eighth inch circular opening, it is thus seen that the experimental Trapite pavement contains over two per cent. more bitumen and sixteen per cent. more binding material than the Whitehouse-Lebanon pavement, and this deficiency of fine material in the Whitehouse-Lebanon pavement is the chief reason why the latter is so full of voids, for it is impossible to fill the voids in large stone unless a certain quantity of fine material is used. The bitumen deficiency also helps to account for the rapidity by which the Whitehouse-Lebanon pavement raveled and went to pieces. It also lessens the cost of such pavement very much for the bitumen is the most costly ingredient entered into the pavement.

And I insist that the Court should find that the Whitehouse-Lebanon Road is not completed in accordance with the contract, and it is not the same pavement upon an analysis as fixed by the sample piece of road and that no judgement should pass against the defendant.

First, because the road has not been accepted in writing by either The Board of Chosen Freeholders or the State Road Commissioner as a completed road under Section 73, nor has the State Road Commissioner accepted in writing as a properly constructed road under Section 3 of the State Road Law, P. L. 1905, page 94. The only judgment that the Court can render against the Defendant is the sum of two thousand three hundred and nine dollars and six cents (\$2,309.06) for extra work done by the Plaintiff upon the road, which extra work was completed in the month of September, 1911. We therefore respectfully submit that so far as the suit to recover the balance due upon the contract is concerned, there should be an affirmance of the verdict of no cause for action. We would like to refer the Court further to the opinion of Justice Vail, page 107.

Respectfully submitted,
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Attorney-General.
H. L. STOUT,
Attorney.





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