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DEPOSITIONS.

NOTICE AND GROUNDS OF APPEAL.

Filed June 24, 1930.

New Jersey Supreme Court

E. J. Flaherty Contracting Co., a corporation of the State of New Jersey, and Mildred A. Rohn, *Prosecutors,* *vs.* The Town of Kearny, in the County of Hudson and State of New Jersey, a municipal corporation, and Patrick J. Maher, *Defendants.*	*Notice and Grounds of Appeal from Judgment of Supreme Court on Certiorari.*

To Nicholas S. Schloeder, Esquire, attorney for prosecutors.

Take Notice, that the defendant, The Town of Kearny, in the County of Hudson and State of New Jersey, a municipal corporation, appeals to the Court of Errors and Appeals in the last resort of all causes in New Jersey from the whole of the judgment entered in the above-stated cause on the following grounds:

1. Because the Supreme Court erred in deciding that the contract under review was not awarded in accordance with the provisions of Section 4, Chapter 188 of the Pamphlet Laws of 1923.

2. Because the Supreme Court erred in deciding that the prosecutors are not in laches and estopped from prosecuting their suit by virtue of Article 20, Chapter 195 of the Pamphlet Laws of 1921, Section 56.

3. Because the Supreme Court erred in not giving judgment for the defendants.

JOHN H. COOPER,
Attorney for the Town of Kearny, in the County of Hudson and State of New Jersey, a municipal corporation, Appellant.

Service of the within notice and grounds of appeal is hereby acknowledged this 20th day of June, 1930.

N. S. SCHLOEDER,
Attorney for Prosecutors.

NOTICE AND GROUNDS OF APPEAL.

Filed June 24, 1930.

NEW JERSEY SUPREME COURT.

E. J. FLAHERTY CONTRACTING Co., a corporation of the State of New Jersey, and MILDRED A. ROHN, *Prosecutors,* *vs.* THE TOWN OF KEARNY IN THE COUNTY OF HUDSON AND STATE OF NEW JERSEY, a municipal corporation, and PATRICK J. MAHER, *Defendants.*	*Notice and Grounds of Appeal from Judgment of Supreme Court on Certiorari.*

To Nicholas S. Schloeder, Esquire, attorney for prosecutors.

TAKE NOTICE, that the defendant, Patrick J. Maher, appeals to the Court of Errors and Appeals in the last resort of all causes in New Jersey from the whole of the judgment entered in the above-stated cause on the following grounds:

1. Because the Supreme Court erred in deciding that the contract under review was not awarded in accordance with the provisions of Section 4, Chapter 188 of the Pamphlet Laws of 1923.

2. Because the Supreme Court erred in deciding that the prosecutors are not in laches and estopped from prosecuting their suit by virtue of

Article 20, Chapter 195 of the Pamphlet Laws of 1921, Section 56.

3. Because the Supreme Court erred in not giving judgment for the defendants.

RIKER & RIKER,
Attorneys for Patrick J. Maher,
Appellant.

Service of the within notice and grounds of appeal is hereby acknowledged this 20th day of June, 1930.

N. S. SCHLOEDER,
Attorney for Prosecutors.

WRIT OF CERTIORARI.

THE STATE OF NEW JERSEY:

(Seal)

To the Town of Kearny, in the County of Hudson, GREETING:

We being willing for certain reasons to be certified of the resolution of the Town of Kearny, in the County of Hudson, in awarding a contract to Peter Maher, for the repavement of Davis avenue from Midland avenue southerly to the Town Line in the said Town of Kearny, which resolution was adopted on August 14, 1929; Do COMMAND YOU that you certify and send under your seal to our Justices of the Supreme Court on the 6th day of September, 1929, next, the resolution of the said Town of Kearny, in the County of Hudson, awarding a contract for the repavement of Davis avenue from Midland avenue southerly to the Town Line in the said Town of Kearny to Peter J. Maher, on August 14, 1929, together with all things touching and concerning the same, and leading up to the same, as fully and completely as they remain before you, together with this our writ, that we may cause to be done thereupon what of right and justice and according to the laws of the State of New Jersey ought to be done.

WITNESS, WILLIAM S. GUMMERE, Chief Justice of our Supreme Court at Trenton, this 17th day of August in the year of our Lord, one thousand nine hundred twenty-nine.

FRED L. BLOODGOOD,
Clerk.

NICHOLAS S. SCHLOEDER,
Attorney for Prosecutor.

ENDORSEMENT AND ALLOCATUR.

E. J. Flaherty Contracting Co., a corporation of the State of New Jersey, and Mildred A. Rohn,

Prosecutors,

vs.

The Town of Kearny in the County of Hudson and State of New Jersey, a municipal corporation, and Patrick Maher,

Defendants.

WRIT OF CERTIORARI.

Nicholas S. Schloeder,
747 Bergenline Ave.,
Union City, N. J.

I allow within the writ.

Let it be sealed either side to have leave to take testimony.

CHAS. C. BLACK,
J. S. C.

Return.

RETURN.

In obedience to the commands of this writ to me, William B. Ross, Clerk of the Town of Kearny, in the County of Hudson, State of New Jersey, directed, I do hereby certify and send to the Honorable Justices of the Supreme Court of Judicature of New Jersey, within mentioned, a resolution of the said Town of Kearny, in the County of Hudson, awarding a contract for the repavement of Davis avenue from Midland avenue southerly to the Town Line in the said Town of Kearny to Patrick J. Maher, on August 14, 1929, together with all things touching and concerning the same, and leading up to the same, as fully and completely as they remain before me in my office.

In witness whereof I have hereunto set my hand and official seal this thirteenth day of September, 1929.

WILLIAM B. ROSS,
Town Clerk.

Schedule.

SCHEDULE.

ORDINANCE.

AN ORDINANCE TO PROVIDE FOR THE PAVING OF DAVIS AVENUE EXCEPTING CENTER LANE THEREOF, BETWEEN MIDLAND AVENUE AND THE TOWN LINE.

BE IT ORDAINED by the Council of the Town of Kearny, in the County of Hudson and State of New Jersey as follows:

Section 1. That Davis Avenue between Midland Avenue and the Town line, excepting center lane thereof, be repaved with either a Warrenite Bitulithic pavement, a National pavement, or an Asphalt Block pavement upon the present Telford Foundation, the curb reset and gutter pavement relaid where necessary and all other construction work appurtenant thereto.

Section 2. That the said improvement shall be made under the direction of the Street and Sewer Committee and the Town Surveyor, and the Town Surveyor is hereby directed to prepare the necessary plans and specifications for the prosecution and completion of said improvement.

Section 3. That the costs and expenses incurred by the Town of Kearny in the prosecution of said improvement shall be assessed upon the Town At Large.

Section 4. That the sum of 70,000 Dollars be appropriated toward the cost thereof.

I hereby certify the foregoing to be a true copy of an ordinance which was adopted by the Council of the Town of Kearny at a regular meeting held October 10th, 1928.

Signed WILLIAM B. ROSS,
(Seal) Town Clerk.

Schedule.

RESOLVED, that sealed proposals will be received by the Town Council of the Town of Kearny at the Town Hall on Wednesday evening August 14, 1929 for the repaving of Davis Avenue between Midland Avenue and the Town Line.

I hereby certify the foregoing to be a true copy of a resolution which was adopted by the Council of the Town of Kearny at a regular meeting held July 24th, 1929.

Signed WILLIAM B. ROSS,
Town Clerk.

TOWN OF KEARNY.

BIDS FOR STREET WORK.

Sealed proposals will be received by the Town Council of the Town of Kearny, N. J., at the Town Hall, on Wednesday evening, August 14th, 1929, for the repaving of Davis Avenue between Midland Avenue and the Town Line.

Proposals must be in the hands of the Town Clerk at or before 8 o'clock P. M., Daylight Saving Time, August 14th, 1929, and must be endorsed "Proposals for Davis Avenue."

Plans, specifications and every information can be obtained from Harry P. Kreiner, Town Surveyor, 790 Broad Street, Newark, N. J.

All proposals must be accompanied by a certified check or cash to the amount of five (5) per cent. of the proposal.

The Council reserves the right to reject any and all bids, as it may deem for the best interests of the town.

WILLIAM B. ROSS,
Town Clerk.

Dated, Kearny, N. J., July 24, 1929.

Schedule.

BID OF DEFENDANT PATRICK J. MAHER

TO THE MAYOR AND COUNCIL
OF THE TOWN OF KEARNY

GENTLEMEN:

The undersigned hereby proposes to Repave DAVIS AVENUE upon the present Telford Foundation and Block Gutter Pavement, from MIDLAND AVENUE SOUTHERLY TO THE TOWN LINE, *except the repaved center lane thereof,* together with all appurtenant work incidental thereto, in the Town of Kearny and where directed by the Town Engineer and the Street Committee in accordance with the plans and specifications prepared by the Town Engineer, which plans, specifications and contract, form the basis of this proposal for the following prices to wit;

Repaving work bid must include all labor and material necessary for scarifying present Telford Pavement, supplying, laying and rolling clean new broken stone 1.1/2″ size over surface of old pavement (Trap rock or dolomite) supplying, laying and rolling surface Type Pavement.

ITEM 1A. To 15000 sq. yds. of Warrenite Bithulithic Pavement, one layer, two inches in depth, compacted after rolling with a twelve (12) ton roller Two Dollars and Eighty Five Cents per sq. yd.

ALTERNATE

ITEM 1B. To 15000 sq. yds. of National Pavement, two layers, one inch binder course, one and one half inch surface course, two and one half inches compacted, after rolling with a twelve (12) ton roller.....per sq. yd.

Schedule.

ALTERNATE

ITEM 1C. To 15000 sq. yds. Asphalt Block Pavement, blocks two and one half inches in depth, standard size and quality, as defined in tests required by the New Jersey State Highway 1929 Specifications, laid on cement and sand cushion and filler, rolled with a twelve (12) ton roller Three Dollars and Fifty Cents per sq. yd.

ALL CURB WORK INCLUSIVE OF EXCAVATION.

ITEM 2. To 2000 lin. ft. of old curb reset in concrete, 1-2.1/2-5 mixture, one cubic yard of concrete to each lineal foot of curb, one and one half inch stone, trap rock or dolomite Eighty Cents per lin. ft.

ITEM 3. To 1000 lin. ft. of new 5″ x 16″ Blue Stone curb, set in concrete 1-2.1/2-5 mixture, laid as above Eighty Cents per lin. ft.

ITEM 4. To 500 lin. ft. of ten ft. Radius Corner Curb, 5″ x 16″ set in concrete, 1-2.1/2-5 mixture, laid as above Two Dollars and Fifty Cents per lin. ft.

ITEM 5. To 3000 sq. yds. of Gutter Block Pavement, relaid on three inches of sand, tapped and rolled, inclusive of taking up and relaying old blocks and filling voids with sand One Dollar and Fifty Cents per sq. yd.

ITEM 6. To 15 new Receiving Basins, 48 inch Sill and Head, eight feet in depth, four feet in diameter (inside) inclusive of excavating and removing old basins One Hundred and Ten Dollars each.

Schedule.

ITEM 7. To 100 lin. ft. of twelve inch Vitrified Tile Pipe, inclusive of excavation and Back Fill Two Dollars and Fifty Cents per lin. ft.

ITEM 8. To 1500 sq. yds. Concrete Foundation, 1-2-4 mixture, machine mixed, 1.1/2 inches broken stone, trap rock or dolomite, laid to a depth of eight inches, reinforced with steel reinforcement, mesh inclusive, 75 lbs. to 100 sq. ft. Two Dollars per sq. yd.

ITEM 9. To 500 sq. yds. steel reinforcement mesh additional, when and where required, 75 lbs. per 100 sq. ft. Seventy Five Cents per sq. yd.

"NOTE"

All excavated material of whatever description to be removed and placed on Town Playground adjoining Schuyler Avenue at foot of Oakwood Avenue, and where directed by Chairman of Streets and Sewers.

Picked Rock, if any, allowance $2.50 per cu. yd.

Bids for Curb inclusive of excavation.

Bids for Paving exclusive of excavation.

The Town retains the right to reject any or all bids or to award the contract to the lowest possible bidder in the classification selected.

No incomplete or irregular bid will be considered.

Accompanied with each proposal must be a certified check for five per cent. of the proposal.

All proposals must be sealed and endorsed "BID FOR THE REPAVING OF DAVIS AVENUE FROM MIDLAND AVENUE SOUTHERLY TO THE TOWN LINE", *except the repaved center lane thereof,* in the Town of Kearny.

Schedule.

The above prices include whatever is requisite to a proper completion of the work, also all charges and expenses for furnishing all labor and material, unless specially provided for, and in all respects completing the aforesaid work in the manner and condition specified.

All old material along the line of the work, of whatever kind, is to remain the property of the Town, except as otherwise defined in the specifications or directed by the Town Engineer.

And the undersigned does hereby agree that they will enter into such bonds for the faithful performance of such contract as may be required by the Town Council of said Town, including Construction Bond in total amount of contract and Maintenance Bond for five years guaranteeing Pavement and all concrete work.

Enclosed herewith find certified check for Three Thousand Three Hundred and Fifty Dollars ($3,350.00) being five per cent of the total amount of the bid.

Dated, August 14, 1929.

Name PATRICK J. MAHER
Address 691 Kearny Ave.,
Arlington, N. J.

Bids will be received on Wednesday evening August 14, 1929 at the Town Hall, Kearny, N. J. at 8 o'clock D. S. T.

(Remainder of specifications, included in return, omitted by agreement of counsel.)

Schedule.

PROPOSAL FOR THE REPAVING OF DAVIS AVENUE FROM MIDLAND AVENUE SOUTHERLY TO THE TOWN LINE, EXCEPT THE REPAVED CENTER LANE THEREOF, IN THE TOWN OE KEARNY.

TOWN OF KEARNY

NAME 1929

NOTICE.

This proposal must be enclosed with an envelope by itself, properly endorsed with the name of the bidder and the street to be improved, and addressed to "CHAIRMAN OF STREETS AND SEWERS COMMITTEE." This proposal must be presented at a public meeting of the Council, at the time and place as advertised.

Schedule.

DAVIS AVENUE REPAIRING.

	P. J. Maher Price Total.	Stand. Bit. Co. Price Total.	Nesto Const. Co. Price Total	Franklin Const. Co. Price Total.
ITEM IA.				
15000 sq. yds. Warrenite.....	2.85—427.50	2.65—397.50	.....	.....
ITEM IB.				
15000 sq. yds. National.....	.....	.....	.....	2.73—409.50
ALTERNATE				
ITEM IC.				
15000 sq. yds. Asphalt Blk.....	.....	.....	3.35—502.50	.....
ITEM 2				
2000 lin. ft. old curb.....	0.80—1600	0.85—1700	0.80—1600	0.90—1800
ITEM 3				
1000 lin. ft. new curb.....	0.80—800	1.85—1850	1.92—1920	1.90—1900
ITEM 4				
500 lin. ft. rad. curb.....	2.50—1250	2.50—1250	2.65—1325	2.50—1250
ITEM 5				
3000 sq. yds. Blk. Pav't.....	1.50—4500	1.10—3300	1.15—3450	1.60—4800
ITEM 6				
15 Receiving Basins.....	110.—1650	1.75—2625	170.—2550	155—2325
ITEM 7				
100 lin. ft. 12-inch Pipe.....	2.50—250	2.25—225	2.20—220.	3.00—300
ITEM 8				
1500 sq. yds. Concrete Fdn.....	2.00—3000	3.75—5626	3.85—5775	2.50—3750
ITEM 9				
500 sq. yds. Wire Mesh.....	0.75—375	0.45—225	0.50—250	0.50—250
	56175	56550	67340	57325

Copied from original notes.

Bids received August 14, 1929.

(SIGNED) H. P. KREINER,
Town Engineer.

Kearny, N. J.

Schedule.

RESOLUTION.

RESOLVED, by the Council of the Town of Kearny, that bids having been received for the construction of a Bituminous Concrete pavement in Davis Avenue between Midland Avenue and the Town Line, that the contract be awarded to

P. J. Maher

at the prices named in his bid, he being the lowest bidder.

P. J. Maher	56,175.
Standard Bitulithic Co.	56,550.
Franklin Contracting	57,325.
Nesto Construction Co.	67,340.

I hereby certify the foregoing to be a true copy of a resolution which was adopted by the Council of the Town of Kearny at a regular meeting held August 14th, 1929.

Signed,

WILLIAM B. ROSS,
Town Clerk.

(Seal)

REASONS.

(Filed September 12, 1929.)

NEW JERSEY SUPREME COURT.

E. J. Flaherty Contracting Co., a corporation of the State of New Jersey, and Mildred A. Rohn, *Prosecutors,* *vs.* The Town of Kearny in the County of Hudson, a Municipal corporation of the State of New Jersey, and Patrick Maher, *Defendants.*	*In Certiorari.*

The prosecutors, E. J. Flaherty Contracting Company, a corporation of the State of New Jersey, and Mildred A. Rohn, by Nicholas S. Schloeder, their attorney, come and pray that the resolution of the Town Council of the Town of Kearny in the County of Hudson, in awarding a contract to Patrick J. Maher, for the repavement of Davis avenue from Midland avenue southerly to the Town line in the said Town of Kearny, which resolution was adopted on August 14, 1929, may be set aside and reversed and for nothing holden, for the following reasons:

REASONS.

1. The said award of said contract was under conditions based on specifications which included patented or proprietary pavements and paving

Reasons.

materials, but which failed to include in said specifications, one or more equivalent types of construction upon which no patent existed or upon which no patented or proprietary right existed, as an alternate type in violation of an act entitled, "An Act Concerning the Construction, Re-construction, or Re-surfacing of any State highway, County road or municipal road and the awarding of contracts therefor" which act was approved March 23, 1928.

2. The said Town Council failed to designate the time and place of the meeting at which the bids for the award of the contract for said improvement would be received and upon receiving such bids, failed thereupon immediately to unseal the same and publicly announce the contents in the presence of the parties bidding and their agents, which said parties were then and there present, in violation of Article 11, Section 3, of Chapter 152 of the Laws of 1917, and of Section 33 of the Crimes Act.

3. The calls for competitive bidding were purposely so framed that under the circumstances, they deterred rather than invited bona fide competition and the award made, was to an intentionally favored bidder.

4. The said resolution of the said Town of Kearny in the County of Hudson, was wholly illegal, erroneous and unlawful for divers other reasons.

NICHOLAS S. SCHLOEDER,
Attorney for Prosecutors.

DEPOSITIONS.

NEW JERSEY SUPREME COURT.

E. J. Flaherty Contracting Company and Mildred A. Rohn, *Prosecutors,* *vs.* The Town of Kearny in the County of Hudson, a municipal corporation, and Patrick Maher, *Respondents.*	*On Certiorari.*

Depositions in the above entitled cause, taken before me, Harry Schirmer, a Supreme Court Examiner of the State of New Jersey, at the office of Nicholas S. Schloeder, Esquire, 747 Bergenline avenue, Union City, New Jersey, this fifth day of September, 1929, at two o'clock in the afternoon, pursuant to notice.

Appearances:

Nicholas S. Schloeder, Esquire, attorney of prosecutors.

John H. Cooper, Esquire, attorney of Town of Kearny.

Thomas E. Fitzsimmons, Esquire, on behalf of Messrs. Riker & Riker, attorneys of Patrick Maher.

It is stipulated that the depositions be taken stenographically and the signatures of the witnesses waived.

Deposition of William B. Ross, direct.

STATE OF NEW JERSEY, } *ss.*
COUNTY OF HUDSON. }

WILLIAM B. Ross, being first duly sworn, according to law, on his oath deposes and says:

Direct examination by Mr. Schloeder.

Q Mr. Ross, what is your position in reference to the Town of Kearny? A Town Clerk.

Q You are the custodian of its records, and so forth? A Yes, sir.

Q I show you what purports to be a return in certiorari, which includes the writ; the advertisement advertising an ordinance entitled "On Ordinance providing for the repaving of Davis avenue, except in the center line thereof, between Midland avenue and the Town line," which appears to be dated September 26, 1928; the proof of publication of the ordinance subsequent to final passage; and the resolution of the Town of Kearny awarding the contract on the bids received for the repaving of Davis avenue to P. J. Maher; also the bids signed by Patrick J. Maher; Franklin Contracting Company; Standard Bithulithic Company and the Nesto Construction Company; and I ask you if these are copies of the records in your possession, or the actual proposals received by you? A These that I have in my left hand that you enumerated to begin with are copies; these bids are the originals.

Q But the copies are made from the official minutes or records in your possession? A They are.

Q And they are true copies? A They are.

Q Mr. Ross, will you kindly turn to your Minute Book and pick out the meeting wherein

it was authorized that the municipality receive bids for the reimprovement of Davis avenue? A Minute Book 29, page 219, dated July 14, 1929, the Street Committee, by Councilman Newell, Chairman, presented the four following resolutions, which were adopted, all members present voting aye on roll call: "Resolved that sealed proposals will be received by the Town Council of the Town of Kearny, at the Town Hall, on Wednesday evening, August 14, 1929, for the purpose of repaving of Davis avenue between Midland avenue and the Town line."

Q Have you a copy of the advertisement that appeared in pursuance to this resolution authorizing such advertisement? A Yes.

Q Will you make that a part of the return to the writ? A I will.

Q I show you what purports to be the plans and specifications for the repaving of Davis avenue between Midland avenue and the town line; is this a copy of such plans and specifications? A I presume they are; that is what Mr. Crandall, the Town Engineer, gave me as the plans and specifications for the repaving of Davis avenue.

Q I notice that while most of these specifications appear to be typewritten and part of it printed, there are certain spaces which have apparently been left blank and figures or names or other data inserted in ink; do you know when that was done? A I do not.

Q Do you know anything about that? A I do not. You see, all the contractors must go to Mr. Crandall for the plans and specifications.

Q Mr. Ross, on page 2 of the specifications labeled "Time," the paragraph appears to begin as follows: "The work to be commenced on or

before the expiration of ten days from the date that the contract is filed with the Town Clerk and must be completed within 75 days from the said date of filing"; I notice that the word "75" appears to be written in ink in the blank space provided therefor; do you know when that was inserted? A I do not.

Q Who would know that? A Kremer, the Town Engineer; Mr. Harry P. Kremer, the Town Engineer.

Q Subsequent to the resolution which was adopted and set forth in your return, awarding the contract to P. J. Maher was there anything further done in respect to this resolution? A I can not recall anything being done.

Q Prior to the meeting on August 14th, at which time the resolution now under review in these proceedings was adopted, did you receive any letter or protest of any kind from anyone in respect to the proposed receipt of bids on that particular night? A I did not.

Q Was there a meeting held the previous night? A Yes; the Council always meets on the night previous to the regular meeting as a committee of the whole, to give the citizens or parties desirous of an audience the right so to do; to go over the work so that they become conversant with what is coming up the following night at the regular meeting, because we do not permit citizens to disturb the Mayor and Council when in regular session; public session.

Q Did anyone appear before that meeting that you now have reference to, protesting against the receipt of bids; in other words, did I appear, for instance? A I think I saw you and I think I saw that gentleman (indicating).

Q Referring to Mr. William Beuscher? A Yes; of course I didn't listen to what you were

saying; I don't pay any attention to the Mayor and Council on that particular night; that is their night, and I have no occasion to take notes or read letters or read anything to the Mayor and Council unless I am asked to do so.

Q On the night of the meeting, August 14th, when did the meeting go into regular session? A Well, I don't know, to be exact; it may have been 8:10 or 8:15; I don't really know the exact time; I never note the exact time.

Q The meeting is called for eight o'clock daylight saving time? A Daylight saving time; yes.

Q Would the minutes disclose the time? A No; we make no note of the time when they meet or adjourn.

Q Well, do you recall how nearly after eight P. M. daylight saving time you met on that particular night? A Well, I would think, as far as my memory may permit me, I think it was around 8:15.

Q What did you do first? A The first thing we did was to call the roll.

Q Then what did you do? A Then the Mayor called for bids.

Q The Mayor called for bids? A Mayor Harvey called for bids.

Q What happened then? A Then we received four bids for the repaving.

Q Four bids? A Yes.

Q Who received them, the Mayor or yourself? A I received the bids.

Q What did you do after you received them? A The Mayor asked me if I had any bids for the repaving of Davis avenue, and I told him there were four bids on the desk; whereupon, on motion, I was directed to open and read them; which was done.

Q About what time was that? A Oh, I don't know what time; that would be about 8:25, I imagine.

Q About 8:25? A As far as my memory goes; I don't take a note of the time.

Q When did you first obtain possession of the bids; about 8:20, about five minutes before they were read? A Oh, no. I, as a rule, go upstairs about 7:45 or 7:50; then the moment I get to my desk the bidders come and hand me their bids; all the bids are in my hands prior to the Mayor and Council at all meetings going into session; no one receives bids but me.

Q Do you remember how long a time elapsed from the time that you received the bids to the time that you opened them pursuant to instructions from the Mayor and Council? A Oh, about 25 or 30 minutes; I don't know exactly.

Q There was no contract signed pursuant to this award, was there? A No, sir.

No cross examination.

STATE OF NEW JERSEY, }
COUNTY OF HUDSON. } *ss.*

WILLIAM P. BEUSCHER, being first duly sworn according to law, on his oath deposes and says:

Direct examination by Mr. Schloeder.

Q Mr. Beuscher, what is your profession or occupation? A Civil engineer.

Q How long have you been engaged in that profession? A For seventeen years.

Q Have you had any experience in connection with municipal work? A I have.

Q In particular reference to the improvement of streets? A I have.

Q For what municipalities have you been so engaged; detail your experience? A I was for thirteen years Town Engineer of West New York; I was connected with Robert Gaw previous to that, who was Town Engineer of North Bergen; and I was engineer in charge of construction for the County of Hudson; then I went back into business for myself.

Q Are you associated with E. J. Flaherty Contracting Company? A I am, in this case.

Q As what? A As engineer.

Q Did you ever have any occasion to lay any bituminous concrete sheet asphalt anywhere? A I have.

Q Where? A Oh, on the Hudson County Boulevard; on various streets, I can not remember them all; I laid a great deal of it.

Q Did you ever have any experience with asphalt block? A I have.

Q Where? A I might say I laid Sixth street, Seventh, Ninth, Twenty-second—that is enough—streets in West New York.

Q Are you familiar with Warrenite Bitulithic or National pavements? A I am.

Q Did you ever lay any streets with those? A Not with Warrenite Bitulithic or National, I did not; I am familiar with the specifications, though.

Q What do you mean by that? A The ingredients.

Q What is Warrenite Bitulithic pavement? A Warrenite Bitulithic is a coarse aggregate bituminous concrete pavement.

Q Is it a sheet asphalt? A No.

Q In what respect does it differ from sheet asphalt? A Sheet asphalt is laid with a binder of stone and bituminous cement and a top course of sand, lime stone dust and asphalt.

Q In what respect does that differ from bituminous? A Bituminous concrete is laid with —it is a concrete made of coarse aggregate, stone, sand, bituminous cement and limestone dust, with a top layer of fine aggregate mix and a seal coat of bituminous cement on top.

Q Well, is bituminous concrete mix pavement laid in the same manner that sheet asphalt is laid? A I would say in the same general manner.

Q In what respect are they identified generally? A Well, they are sheet asphalts.

Q They are sheet pavements? A Right.

Q Is asphalt block a sheet pavement? A No.

Q The difference between ordinary sheet asphalt and the bituminous concrete sheet pavement is in what? A In the ingredients.

Q What kind of a pavement is a National pavement? A National pavement is a bituminous concrete, also.

Q Do you know in what respect it differs from ordinary sheet asphalt? A Why, the coarse aggregate or the mineral aggregate is composed of a natural bank gravel, which is used in the construction of this pavement, in place of the trap rock or other crushed stone which is used in other bituminous concrete.

Q Is it generally laid the same way? A Yes.

Q It is a sheet asphalt pavement, is it? A It is.

Q Do you know whether or not Warrenite Bitulithic is a patented pavement or proprietary pavement? A It is.

Mr. Fitzsimmons: We admit that Warrenite and National are.

Q Are there any bituminous concrete mixes or asphalts which are non-patented? A There are.

Q What, for instance? A Sheet asphalt, coarse aggregate; bituminous concrete, fine aggregate; bituminous concrete as specified in the State Highway specifications, both one course and two courses.

Q Are they all bituminous concrete asphalts? A They are all bituminous concrete.

Q What is the name of the State Highway specifications? A New Jersey State Highway Specifications; there are two of them; one is for County highways and one is the regular State Highway specifications.

Q What is the number of that, or the name of the special type; has it got a name? A Here is one known as surface type SA-75-C sheet asphalt, two course.

Q Is that a bituminous concrete? A No; that is sheet asphalt. Then we have surface type CA-BC-1-75-G coarse aggregate bituminous concrete.

Mr. Fitzsimmons: I want to enter an objection to any testimony concerning the State Highway Specifications, on the ground that they are absolutely immaterial in this case; further, they are not competently proved as copies.

Mr. Schloeder: I am asking Mr. Beuscher as an expert engineer, as to what are the names of some of the bituminous concrete mixes which are non-patented. That is what I am asking now.

Mr. Fitzsimmons: He is referring to the State Highway Specifications.

Mr. Schloeder: He says that is one of them.

Mr. Fitzsimmons: I will have my objection noted.

Q Surface Type CA-BC-2-75H, is that a bituminous concrete? A Coarse aggregate bituminous concrete.

Q Are they non-patented bituminous concretes of the same general character as Warrenite Bitulithic? A Give me a chance to finish; there are more of them in here.

Q Is that so? A Yes.

Q Are there any more? A Yes; surface type FA-BC-1-751, fine aggregate bituminous concrete; surface type FA-BC-2-75J, fine aggregate bituminous concrete.

Q Are all these that you have given us bituminous concretes of the same general character as Warrenite Bitulithic and National pavement? A Well, the first one is sheet asphalt; the second two are coarse aggregate bituminous concrete, very much like Warrenite Bitulithic, and the last two are a fine aggregate mixture; that means that only the stone is a smaller size than in Warrenite Bitulithic.

Q A smaller size stone? A Yes.

Q How about National pavement? A National pavement I explained.

Q I mean with respect to these non-patented bituminous mixes that you have read; is there any difference between that and Warrenite Bitulithic, or any resemblance to these non-patented bituminous mixes? A The coarse aggregate bituminous concrete is practically identical with Warrenite Bitulithic.

Q How about National pavement? A National pavement is made with a different aggregate.

Q I am trying to find out what is the relation between National pavement and these non-patented asphalts? A I believe I am explaining that; I am saying that the aggregate, merely the aggregate is of a different kind in National pavement; I explained what the aggregate was before.

Q Now you have testified that Warrenite Bitulithic and National pavement are bituminous concrete sheet asphalts; is that true? A Sheet pavements; yes.

Q What in your opinion are the equivalent types of construction for Warrenite Bitulithic or National pavement? A Why, any of the non-patented coarse aggregate bituminous concretes which I mentioned from these State Highway Specifications.

Q In what respect does Warrenite Bitulithic differ from asphalt block? A Asphalt block is a fine aggregate bituminous concrete, mixed at the plant and then moulded into blocks; there they are inspected, piled and shipped to the work, and then paved by hand.

Q In what manner—are you familiar with the manner in which they are pressed into blocks? A They are pressed into blocks with large presses, which I have seen in operation.

Q After they are laid by hand, what happens then? A That completes the pavement, except they must be laid with a mortar cushion.

Q Is it necessary to roll them? A No.

Q In what way is Warrenite Bitulithic laid? A It is brought on the ground in trucks, spread by shovelers, then raked, and then rolled with steam rollers.

Q Can an ordinary asphalt plant, if it has the proper ingredients, make a bituminous concrete mix like Warrenite Bitulithic? A They can.

Q Can such an asphalt plant make an asphalt block? A They must have the additional machinery, the presses and so forth, that make the block.

Q In other words, an additional process is required in the manufacture of asphalt block? A Yes, sir.

Q Is the same true of National pavements that you have just recounted in respect to Warrenite Bitulithic? A The same is true of National pavement, it is laid in the same manner as Warrenite Bitulithic.

Q In your opinion as an engineer, is asphalt block an equivalent type of construction to Warrenite Bitulithic or National pavement? A It is not.

Q In addition to the differences that you have recounted, what other factors do you base your conclusion on? A The cost.

Q Is there any difference in cost; and if so, what is it? A Well, asphalt block costs considerably more laid in the street than bituminous concrete, due to the fact that an additional process is required to manufacture them; they must be laid on a mortar cushion by hand and they require a great deal of handling.

Q Do you know whether or not asphalt block is patented? A It is not.

Q It is not? A No, sir.

Q Are there any processes or machinery required to make it that are patented? A Yes, certain features of the presses are patented.

Q Who makes asphalt block, do you know? A Asphalt block is made in this vicinity by the Hastings Paving Company.

Q What do you mean by this vicinity? A Well, all the blocks that I have used on my work were furnished by Hastings, and the only other competitor that ever existed in this immediate vicinity was the Barber Asphalt Company, who no longer make blocks.

Q By this vicinity generally what do you mean; how close? A Within—

Q The State of New Jersey? A No, I wouldn't say the State of New Jersey. Within 20 or 25 miles hauling distance, or a reasonable distance in which a man could cart the blocks and furnish them at a fair price.

Q Do you happen to know of any other company that makes asphalt block, and if so, where? A Why there are some made in Toledo.

Q Toledo, Ohio? A Ohio.

Q Where else? A There was a plant in Florida; I believe it is still there.

Q In Florida? A Yes.

Q Is the plant in Toledo, Ohio, the nearest plant outside of the Hastings Company making asphalt block? A The nearest one that I know of.

Q Do you know where the Hastings Company makes its blocks? A Hastings, New York.

Q I show you the proposal sheets submitted by the bidders and made part of the return, and

call your attention to the bid of the Nesto Construction Company for $3.35 per square yard for asphalt block; I likewise call your attention to the bid of the Warrenite Bitulithic for $2.65 for Warrenite Bitulithic; I also call your attention to the bid of the successful bidder, Patrick J. Maher, who bids on item 1-A, for Warrenite Bitulithic at $2.85 a yard, and the asphalt block at $3.50 a yard, the same bidder; and ask you whether that represents the usual difference in price between asphalt block and Warrenite Bitulithic pavement? A I cannot say that it is the usual difference in price because it is very seldom bid on the same bid sheet.

Q I mean, does that express the difference in price? A It expresses the difference in the value between the bituminous concrete and asphalt block.

Cross examination by Mr. Fitzsimmons.

Q Now, Mr. Beuscher, you say that you are the engineer for the Flaherty Company in this case? A I am.

Q Isn't it true that you have been consulting engineer for this company for some years past? A No, sir.

Q Do you recall making an affidavit in this case, dated the 14th day of August? A I do.

Q In which you say that you are the consulting engineer of E. J. Flaherty Contracting Company? A That is correct.

Q Engaged in the general contracting business, and have been so engaged for twelve years? A I have been so engaged?

Q For twelve years.

Mr. Schloeder: The contracting company has been.

Q That the contracting company has been engaged in that business for twelve years? A They may have been.

Q You say in your affidavit that they were engaged for twelve years? A Yes, I know that.

Q What do you mean in the affidavit that you are the consulting engineer for the Flaherty Company? A I mean that I am the consulting engineer for them on any work on which they require an engineer.

Q So that you have done consulting work for that company during the past ten or twelve years? A No, I haven't.

Q For how many years? A Possibly for two years or two and a half years I have been consulting engineer for them.

Q So that your statement that you are consulting engineer only in this case is not true; you have been consulting engineer in other cases? A I didn't say that I wasn't consulting engineer in other matters; I merely said that I was consulting engineer in this case for them, and I will elaborate on this or in any case in which I am employed by E. J. Flaherty on any other construction.

Q You have been employed by the Flaherty Company prior to this case? A I have.

Q Isn't it a fact that Warrenite Bitulithic, National pavement and asphalt block are all known as bituminous pavements, the three of them? A They are all bituminous pavements—

Q They are all bituminous pavements. A Inasmuch as asphalt is required, or bituminous material is required in their construction.

Q Isn't the underlying principle of making all of those pavements practically the same? A No.

Q Wherein do they differ? A They differ inasmuch as the first two mentioned pavements—

Q That is Warrenite and National. A —Are merely turned out of an asphalt plant; in other words, they are various aggregates and bituminous cement mixed together; and asphalt block, in order to become block, must go through a separate process again in order to become a block, that is an entirely different process from mixing the material.

Q Laying aside the process and limiting ourselves to the ingredients in these three pavements, aren't the ingredients practically the same? A I would say yes.

Q Well, can you name some bituminous pavements which would be equivalents of the National and Bitulithic patented pavements specified in this contract and specifications, stating the ingredients and their proportions in these two patented pavements and in such equivalent pavements as you can name? A Stating their exact ingredients?

Q Yes; can you name others? A I can name others, but I can't mention their exact ingredients, because they would vary with the amount of voids and the various kinds of material that were put into them.

Q That depends also on the specifications required; isn't that true? A Right.

Q So that in some cases it might be possible, according to how the specifications were drawn, for National and Warrenite and asphalt block, to be equivalent? A No.

Q As far as type of pavement is concerned, leaving aside the process of making it? A If you will say type of mixture, I will say yes; but type of pavement, no.

Q Why isn't that true? A Because the pavement is the thing that is laid on the street the mixture which makes the pavements is what you are speaking of when you are speaking of ingredients.

Q So that the only reason you say that asphalt block is not the equivalent of these other two pavements is because of the cost, and also because asphalt block, in order to make them blocks, must be pressed through machinery and laid by hand? A Correct.

Q That is the only reason? A That is the main reason.

Q What other reason is there? A The fact that asphalt block requires, according to the specifications, a mortar cushion underneath it, which also costs an additional amount of money.

Q Well, what do the specifications provide for laying underneath the Warrenite and National? A Nothing except the base that is required for asphalt block also.

Q Now, what, from an engineering standpoint, do you mean by equivalent types of pavement; what is your definition of that term? A By an equivalent type of pavement I would say to make it as nearly identical as possible.

Q Doesn't the word "equivalent" mean "something similar"? A Yes.

Q Wouldn't you say that asphalt block is similar to National and Warrenite? A No, I would not.

Q You admitted that they are made out of practically the same ingredients? A Yes, surely.

Q Why aren't they practically the same, if they are all made out of the same ingredients? A Because there is the difference which I have explained to you, which doesn't make them equiv-

alent in any sense of the word. You couldn't call everything that was made of wood equivalent to the other thing.

Q As to National pavement and Bitulithic pavement in these specifications, do you know the nature, or kind or requirements of any patents connected with them? A Do I know the nature or requirements?

Q Yes. A Yes; I have read both specifications and know.

Q Have you read the patents? A In their own specifications they state what their patents are.

Q What do they require; what do the patents require? A Well, the patents for Warrenite Bitulithic require that the first course of material when laid is not rolled previous to the placing of the finer course on top, or the fine aggregate course which fills the voids; that is the only main difference I can see between the patented and unpatented material.

Q Now as to the asphalt block pavement, do you know the name of any inventor, number of any patent, directly or indirectly connected with asphalt block pavement? A Mr. McNally of the Hastings Paving Company—

Q I am asking you, do you know? A Yes.

Q The name of any inventor or number of any patent. A No, I don't.

Q Isn't it a fact that asphalt blocks can be made by any person who has the knowledge of making them? A No.

Q Can't you as an engineer assist any person or corporation who desires to make asphalt block; can't you assist them in making it? A I could assist them in making them, provided they bought the machinery and all the necessary equipment required. Is that what you mean?

Q Yes. A Yes.

Q It isn't necessary to have that machinery patented, is it? A I would have to design a piece of machinery which would not infringe upon patents which now exist, like the McCoy patents, for instance, and the patents of the Hastings press. Well, they are two that I know of.

Q That is exactly the point; you could design machinery, if you had the ability, to turn out asphalt blocks, can't you? A I might.

Q Now, when you made the affidavit that asphalt block could only be obtained from the Hastings Paving Company under its patent, what did you mean by that? A I mean that commercially the only place that you can get asphalt block in this section is from the Hastings Paving Company.

Q Do you, or do you not know, whether or not the making of asphalt blocks is patented; the making of them? A The same as I stated in my affidavit, I believe that certain features of the presses are patented.

Q I am not talking about the presses; I am talking about the making of asphalt block itself. A The block is not patented; I admitted that.

Q Assuming that asphalt block pavement is not patented or controlled by patents, what other non-patented bituminous pavement could be placed in competition with either or both the National pavement or Bitulithic as specified in this contract and specifications? A Either coarse aggregate or fine aggregate bituminous concrete.

Q Now, you stated on direct examination that the coarse aggregate of those bituminous pavements which you mentioned were practically

identical with Warrenite Bitulithic. A That is correct.

Q Isn't it a fact that Warrenite Bitulithic pavement has a coarse aggregate only in its lower part and a fine aggregate in its upper part? A Yes.

Q How do you say that those pavements which you mention are practically identical with Warrenite? A They have a coarse aggregate; they consist of a coarse aggregate pavement and Warrenite Bitulithic is a coarse aggregate pavement.

Q Warrenite Bitulithic has a coarse and a fine; isn't that true? A Well, so has a coarse aggregate concrete, two course.

Q You mentioned the Barber Asphalt block; that company was doing business until it was burned out, isn't that true; they had a big fire? A I believe they did; so I heard.

Q So that there would be nothing to prevent that company from starting up again if it so desired, so far as you know?

Mr. Schloeder: I don't see what the materiality of that, what they might do, is; we are talking about existing conditions now.

A Not to furnish materials for this job, which is to be completed in 75 days.

Q Now, you know Colonel Howard? A I do.

Q Did you know that he assisted a company in Brooklyn to make asphalt blocks? A Yes; the Borough Asphalt Company.

Q Is that company in existence now? A Yes.

Q Couldn't you obtain these blocks from them? A No, sir; McCoy told me he doesn't make blocks any more; I had him on the wire.

Q You say that you attended the meeting of the Town Council of Kearny on the night of August 13th, representing the Flaherty Company; is that right? A I did; the committee of the whole meeting.

Q Did you attend on the 14th? A What was the 14th; bidding night?

Q Yes. A No; I didn't.

Q When did you make the affidavits which you signed in this case? A I believe the date is on them.

Q I am asking when did you sign those affidavits? A I can't remember the date I signed them, but I signed them on that date, I am pretty sure of that.

Q Do you remember whether you signed those affidavits before or after the contract was awarded to Maher? A I signed some before and some after.

Mr. Schloeder: Right.

Q Now, in your affidavit, one of your affidavits, you stated that the Flaherty Company could not bid on this job; is that true? A That is correct.

Q Why couldn't they bid on that job; why couldn't that company bid on this job? A They couldn't bid because they had to get prices for their materials from the different companies who made these patented materials.

Q Couldn't they get that price the same as the other contractors?

Mr. Schloeder: I object to that as immaterial.

A They could; but they had a plant of their own, in which they could manufacture this mate-

rial, which is practically identical, and they could have gotten it for less money than they could purchase it from the concern which made these patented pavements.

Q What other block pavement which is non-patented would you say was the equivalent in type to asphalt block? A There isn't any.

Q So that if your contention is true, that asphalt block is a patented pavement— A I didn't say that.

Q You didn't say it? A No, sir; I said that certain processes in the manufacture are patented, I believe.

Q In your affidavit dated August 14, 1929, you say that it will be observed that said specifications call for three alternatives, Warrenite Bitulithic pavement, National pavement and asphalt block pavement; the first two mentioned are admittedly patented and proprietary; asphalt block is manufactured exclusively under the Hastings patent and it cannot be purchased in the open market in the East except through a single source, being controlled by the proprietors of the Hastings patent; is that true? A That is correct.

Q So that now you say that asphalt block itself is not patented? A I did say that there; that is the understanding to my affidavit as I made it.

Q I want to get it on the record. You say that asphalt block itself is not patented? A I said it.

Q So that if it was not for the fact that asphalt block cost more money to lay than the National and Warrenite, and the fact that it is laid by hand, you would say that they were equivalent in type; isn't that true? A If it wasn't for the ingredients—

Q I am saying that. (Last question repeated.) A I would not.

Q I will add in there that it cost more to manufacture; wouldn't you then say that they are equivalent in type? A They could not be equivalent in type, inasmuch as asphalt block is not a sheet pavement at all.

Q So that you say in order for a pavement to be equivalent in type in this instance, it will have to be a sheet pavement? A I would say that, yes.

Q Isn't it a fact that "equivalent" might refer, or does refer to durability and service? A I wouldn't say that, no.

Q So that, in your judgment, if it was proved that asphalt block just as good, just as durable, and would give the same service as rendered by Warrenite Bitulithic, it would not be equivalent in type? A No. I will admit that all three of them, any kind of asphalt pavements, are good pavements, but if there are pavements which will stand more wear than asphalt pavements I would not call them equivalent.

Q I am talking now under the specifications in this contract. A Yes.

Q Would you say that they are not equivalent? A In type, no, I wouldn't say they are.

Q Even though they may be just as durable and just as serviceable A No, sir.

Q Now, on the question of cost of laying asphalt block, doesn't it depend more or less upon the location of the work A On the cost of laying them?

Q Or obtaining them.

Mr. Scholeder: Which is it? Let us find out.

A I would say that they might cost slightly more to handle on a very busy traffic street, but I can not see how I can answer that doggone question.

Q Maybe I can clarify it. Suppose this work was at Hastings, New York, where you say the Hastings blocks are manufactured, and the specifications called for Hastings blocks; couldn't those blocks be purchased and laid cheaper at Hastings, New York, than in Kearny, New Jersey? A Oh, yes.

Q Wouldn't it cost more to lay National pavement and Warrenite Bitulithic at Hastings, New York, than Hastings block? A Why, you could make it at any asphalt plant that was up around there.

Q But it would depend upon the availability of an asphalt plant? A Well, in order to make asphalt block you must have an asphalt plant; they could turn it right out at the Hastings plant.

By Mr. Cooper.

Q In your affidavit, Mr. Beuscher, on which this writ was based, you stated that it is impracticable from an engineering standpoint, as the road would then consist of two hybrid types, one consisting of sheet pavement and the other of block pavement; this is referring to the laying of asphalt block and the pavement that the successful bid was made upon? A Yes, sir.

Q Now, what do you mean by that? A I mean that from an engineering standpoint no engineer would design a road and put a sheet type pavement in the center and a block or some other pavement on the side, unless he were figuring possibly on a hill where he could put granite block on the side for horses, or something of

that sort, but in order to lay a pavement the general engineering practice is to try to get it to look as nearly the same as possible; that is, the general surface of the road shall look the same.

Q Well, have you ever driven up Kearny avenue, from the Erie Railroad, Newark Branch, to the Erie Railroad, Greenwood Lake Branch? A Yes.

Q Do you know that on both sides of the street it was laid with different sorts of pavement, one asphalt block similar in type to this mentioned here, and the other a pavement of Warrenite Bitulithic? A In my opinion it doesn't look very well.

Q Well, what is objectionable about the situation there in the sense of looks? A Well, from an engineering standpoint it doesn't look very well; it isn't as neat a looking job as if you had the whole thing from curb to curb of one type of pavement. You, I believe, as a layman, would notice that, from the fact that you did notice it, showing that you saw there was a difference there.

Q How do you know that I noticed it? A Well, you told me about it.

Q I asked you about it. A Well, if you hadn't known about it you couldn't have asked me.

Q I would ask you then if that road is not useful and practical for the purpose for which it was designed, that is, roadway and street purposes? A It is useful, but it isn't the finest type of construction, I would say that it were, from an engineering standpoint, something that should not have been done.

Deposition of William P. Beuscher, re-direct.

Q As to the durability of the street, or the pavement, would you say it was any less durable because of having used the two pavements? A No, I wouldn't say that it were less durable; you might get a ridge between where the sheet pavement and the block were laid, though.

Q But as to durability, you would say that it was satisfactory? A Yes; they are both durable pavements.

By Mr. Fitzsimmons.

Q These three types of pavement, National, Warrenite and asphalt block, aren't they all durable and serviceable pavements? A Yes, sir.

Q Isn't it a fact that whether or not they should be laid on any street is a matter of personal feeling of the engineer; that several engineers may differ? A I don't know of any that would differ on laying two types of pavement on one street, except as I mentioned.

Q You get me wrong; I am not talking about the two types of pavement on this street as they are now laid; I am talking now under these plans and specifications, isn't it a fact that if any one of these three types of pavement were laid, they would be durable and serviceable? A Yes, they are, certainly.

Q One is equally as good as another? A I would say yes.

Q Under proper specifications? A Yes; they are all good durable pavements, if that is what you are driving at.

Redirect examination by Mr. Schloeder.

Q Mr. Beuscher, if they laid a road of vanadium steel covered with plate gold, would that

also be durable? A I don't think it would be; it wouldn't, in the first place it would be very slippery, and it would not be practical.

Q Well, I mean if they directed it so that it would not be slippery; it would be rather durable? A I suppose vanadium steel would be more durable than any that you might lay.

Q Gold would never wear out, would it? A Oh, yes; it would very quickly.

Re-cross examination by Mr. Fitzsimmons.

Q On the question of cost, there are other pavements than those you mentioned as equivalents which would be cheaper to lay than those particular pavements; in other words, there is a cheaper pavement than sheet asphalt? A That is cheaper than bituminous concrete?

Q How about macadam? A Well, macadam isn't mixed at a plant at all; macadam is stone; if you mean bituminous macadam, that is only a penetration roadway.

Q That would be cheaper, wouldn't it? A Oh, considerably.

Q So that on the question of saving the taxpayers' money it is purely discretionary with the municipal body as to what kind of pavement they want to use, isn't it? A I would say yes.

Mr. Schloeder: I object to any legal discussion by an engineer.

Mr. Fitzsimmons: I am asking the engineer for his opinion.

Q So that if the Town of Kearny decided to lay bituminous concrete or bituminous macadam instead of sheet asphalt, both of those pavements

would be cheaper, wouldn't they? A Bituminous concrete, as you stated, and as I stated, they would be practically equivalent.

Q How about the price? A Oh, the bituminous macadam pavement is an entirely different type of pavement; it isn't as durable as anything of that sort.

Q That is true. I am talking now on the question of price. Didn't you say that bituminous concrete would be cheaper than sheet asphalt? A I said it would be cheaper than sheet asphalt, yes; sheet asphalt doesn't enter into this thing at all.

Q I understand that. In your affidavit you state that if the Town of Kearny had put it as an alternative sheet asphalt— A No, I didn't.

Q What did you say? A Bituminous concrete.

Q You could have saved them many thousands of dollars? A Correct; with an equivalent almost identical pavement for all practical intents and purposes.

Re-direct examination by Mr. Schloeder.

Q How much would you have been able to save them, approximately, on this job, in dollars and cents, if you were permitted to bid on a bituminous concrete alternate which was non-patented? A You mean if Mr. Flaherty was permitted to?

Q Yes. A I should judge about $10,000.

Q Reference has been made to a meeting on the 13th of August; were you present at that meeting of the Town Committee? A I was; with you.

Q Did you have any conversation with Mr. Harry Kremer, the Town Engineer? A I did.

Mr. Fitzsimmons: I object to any conversations with the Town Engineer, on the ground that it is not competent evidence and not binding on the municipality.

Q This was made at an open meeting of the Town Council, was it not? A At a meeting of the Town Council.

Q What did he say to you? A He said that they intended to use Warrenite Bitulithic and that they merely put the asphalt block in there as an alternate to cover the law; he stated that at the open meeting; he didn't state that particularly to me.

Q Did he say anything about whether the specifications were closed?

Mr. Fitzsimmons: I object to that on the ground that it is a leading question.

A He made that statement.

STATE OF NEW JERSEY, }
COUNTY OF HUDSON, } *ss.*

EDMUND J. FLAHERTY, being first duly sworn according to law, on his oath deposes and says:

Direct examination by Mr. Schloeder.

Q What is your name? A Edmund J. Flaherty.

Q What business are you in? A Contractor; street work.

Q Are you connected with E. J. Flaherty Contracting Company? A I am; as President and Treasurer.

Q What business are they engaged in? A Building streets, sewers, grading and general contracting.

Q Have you ever built any streets? A Yes.

Q How long have you been engaged in that business? A Since 1915.

Q Have you constructed streets? Yes, constructed streets in Jersey City, Hoboken and various other municipalities.

Q Have you an asphalt plant? A We have, on the Passaic River and the Pennsylvania Railroad in what is known as Kearny.

Q The Town of Kearny? A In the Town of Kearny.

Q Is your equipment capable of manufacturing bituminous concrete mixes? A It is; we have a plant of 2,000 yard capacity, with various rollers and tools necessary, and we have an organization of experienced men who have laid asphalt before.

Q Did you submit a bid in these proceedings? A No, we couldn't submit a bid.

Q Why not? A Because the material that our plant could turn out could not be used; the specifications were closed, calling for Warrenite Bitulithic pavement two inches, which is a patented pavement, and calling for National pavement, which is a patented pavement, all protected by patents, and also asphalt blocks, the manufacture of which is done by machinery on which there are basic patents which there would be an infringement upon. We went to the board and we asked them, we tried our best to be allowed to bid; we went before the Meadows Taxpayers

Association, of which we are a member, at a meeting and explained it to that body, and they felt as we felt that if we had to pay taxes we had a right to be allowed to bid.

Cross examination by Mr. Fitzsimmons.

Q You say you couldn't bid on this job. A Not unless I paid a premium or a higher price to the patentees of the materials or the people who make the patented materials.

Q You mean a higher price than what you would make the bituminous concrete for? A A bituminous concrete as covered by the patents of the Warrenite Company.

Q But you could have bid on this job by obtaining a price from the Warrenite people which was on file in the Town Clerk's office; and also the National; and also the asphalt block; you could have gotten those prices the same as the other contractors did? A Why should I?

Q Just a minute; you could have gotten those prices, couldn't you? A I could have, yes.

Q But you didn't attempt to bid on these three types of pavement, did you? A Because—

Q Just a minute; you didn't attempt to bid on these three types of pavement, did you? A No, I didn't.

Q You have already stated your reason. Did you ever lay asphalt block pavement any place during your experience? A Yes.

Q Did you ever lay Warrenite Bitulithic? A No.

Q Did you ever lay National pavement? A No.

Q If you laid asphalt block in other cases, why couldn't you lay asphalt block in this case?

A Because I couldn't compete with the price for which Warrenite Bitulithic pavement could be laid for; I couldn't compete with asphalt block.

Q Couldn't you get the same prices on all of those pavements which these other contractors obtained from the makers of that particular type of pavement? A Evidently you don't get what I mean to convey; certainly.

Q Just answer the question. A Certainly.

Q You could have bid in competition with these other contractors, couldn't you, on those particular types of pavement? A And waste my money as a taxpayer, yes.

Q Answer my question; you could have bid? A And waste my money as a taxpayer, yes.

Q And the question of how much your bid would be would depend upon how much profit you wanted to make on the job; isn't that true? A No, it isn't true; because I could have bid cheaper for my own product.

Q I am talking about these three types of pavement; limit yourself to those, please; that is all we are talking about. You could have bid on every one of these three types, couldn't you?

Mr. Schloeder: I object to that as immaterial. He has already answered that about five times.

Q You could have bid on these three types of pavement, couldn't you?

Mr. Schloeder: Certainly he could have; he has answered that five times.

A Yes.

Q You could have competed with the other contractors, couldn't you, on these three types of

pavement? A No, I don't think I could have competed with them.

Q On these three types of pavement? A I couldn't, because I would be paying extra, because the man that was turning them out would have to be making a profit, and therefore the taxpayers of Kearny were being robbed, if you want it in Plain English.

Q Why couldn't you bid with these three contractors or four contractors who bid on this job?

Mr. Schloeder: He has already answered that.

Q When the price for that pavement was the same to all, why couldn't you compete? A Well, I have answered that in my other answer.

Q We didn't get you right. A Why should I pay a premium to the Standard Bitulithic Company or give them a profit that I should make, when we are in the Town and they are not?

Q Didn't the other contractors have to do the same?

Mr. Schloeder: I object to that.

A That is what we are contending for; that is in violation of the law.

Mr. Schloeder: I object to that as immaterial, irrelevant and incompetent. The question as to whether he could bid on the particular articles specified is immaterial. That this proceeding is not for the purpose of the Flaherty Contracting Company, but for the benefit of the taxpayers.

Q I want to know from you if you wouldn't do the same as the other contractors did, to ob-

tain the prices on these various pavements and compete with them on those particular types, if you so desired to do?

Mr. Schloeder: I object to that on the ground that he has already answered it in the affirmative no less than six times already.

Mr. Fitzsimmons: He has not done so; that is why I am asking him to answer the question now.

A Well, were I to bid on these prices—

Q I want a yes or no answer to that question. A I got to modify it; it isn't one of those questions that can be answered by yes or no.

Q (Last question repeated.) A Who were the other contractors who bid?

Mr. Schloeder: Patrick J. Maher; Nesto Construction Company; Franklin; and Standard Bitulithic.

A How can the Standard Bitulithic Company obtain prices from the Standard Bitulithic Company?

Q I want a direct answer, whether or not you could have done the same as the other contractors who did compete on this work? A The other contractors? There are only two other contractors that don't make patented materials.

Q Couldn't you have put in a bid? A There are only two other people that put in a bid on a patented article which the other one manufactured.

Q I still want to know if you couldn't have put in a bid. A No; I think it would have been foolish for me to do it.

Q I am asking you if you couldn't regardless of your own feelings about it. A I don't think so; it would have been illegal for me to do it.

Mr. Schloeder: I object to that. Counsel has a misconception as to what this case is about.

Q You know that Patrick J. Maher was the lowest bidder, don't you? A I heard that he was; I didn't see the bids, though.

Q It has been proved in this case that Patrick J. Maher was the lowest bidder and received the contract.

Mr. Schloeder: I object to that on the ground that it is immaterial. Why argue with the witness. The facts speak for themselves.

Q Assuming that that has been proved, why couldn't you have competed against the other contractors, the same as Maher did? A I would consider that I was wasting my money.

Q I say, why couldn't you compete? A Because I would have to pay higher prices to the makers of the patented material that I could duplicate the material for in my own plant and thereby save my own money as a taxpayer. I have a right to do that.

Q Eliminating the question of your own type of pavement; bituminous concrete, which— A Yes—

Q Just a minute. Couldn't you have obtained the prices on Warrenite Bitulithic the same as Maher did and compete on this job if you wanted to? A Why should I pay them a premium?

Q I am asking you, couldn't you do it? Maher paid a premium. A The taxpayers are paying the premium, too.

Mr. Schloeder: For the eighth time, the same question.

Q Couldn't you have done the same as Maher did? A I would consider that I would be a candidate for the insane asylum were I to do so.

Q Do you refuse to answer that question? A I don't refuse; to do so I would be wasting my own money as a taxpayer.

Q Is your answer yes, or no?

Mr. Schloeder: Say yes.

A Yes; if you want yes.

It is stipulated that the prosecutor, Mildred A. Rohn, is a taxpayer of the Town of Kearny.

STATE OF NEW JERSEY, }
COUNTY OF HUDSON, } *ss.*

RALPH P. HALLER, being first duly sworn according to law, on his oath deposes and says:

Direct examination by Mr. Schloeder.

Q Mr. Haller, what is your business or profession? A I am a graduate civil engineer.

Q Of what school? A Tri-State College of Engineering, Indiana.

Q Are you familiar with street pavements? A I am.

Q Have you ever assisted in the construction of streets? A I assisted to the extent that I have acted as engineer and supervisor of construction; I have done no actual construction itself. My business is that of operating a testing laboratory and consulting engineer's office on pavement construction, so that we read specifications, prepare plans and specifications and supervise the construction.

Q Are you familiar with Warrenite Bitulithic? A I am.

Q And National pavement? A I am.

Q And asphalt block? A I am.

Q What kind of pavement is Warrenite Bitulithic pavement? A Why, Warrenite Bitulithic pavement is a type of pavement covered by a patent issued to the Warren Brothers, of Massachusetts, covering the construction of paving asphalt, containing asphalt cement or bitumen as the cementing medium; it is composed of various mineral aggregates in more or less definite proportions, cemented together by bitumen.

Q And is the same true of National pavement? A National pavement is a pavement produced by cementing together mineral aggregate with bitumen, the difference being in the quantities and percentages of each of the component parts; also some difference in the actual process of laying the product.

Q That is between National and Warrenite? A Yes.

Q Now, are there any non-patented bituminous concrete mixes which are the equivalent of Warrenite Bitulithic? A By "equivalent" you mean, I assume, one with equal durability, of physical appearance and general usefulness and at an equivalent price. I assume that is what you mean.

Q Yes. A More or less all so-called bituminous concrete pavements, one of which is generally known as a Topeka pavement.

Q Yes. A Sheet asphalt and various other preparations that engineers throughout the country have advised are equivalent in price, durability and general physical appearance as Warrenite Bitulithic and National pavements.

Q Can you name some non-patented materials that are equivalent types to Warrenite Bitulithic? A Confining my equivalent comparisons to the modifications that I previously made, I would say any bituminous concrete pavement and sheet asphalt pavement was of an equivalent nature; in the State of New Jersey, as a typical illustration, they have the so-called C-abc and F-abc type pavement. They are merely numerical indications for a definite, specific and proportionate material. In other States, or other adjoining States, they have other nomenclature for the same kind of pavement. That F-abc and C-abc is merely a distinct, localized in the State of New Jersey, definition.

Q Well, is there much difference between those two that you have just mentioned and Warrenite Bitulithic? A The basic difference is the fact that in coarse aggregate and fine aggregate two course bituminous pavement, the two courses are laid separately, that is, the first course is laid and rolled, and after being rolled a second course is applied and also rolled, whereas in Warrenite Bitulithic the two courses are laid and rolled on the top of the second course, so that there is only one process of rolling. There is no distinct line of cleavage between the two courses.

Q How about the mixture itself; the physical mixture itself? A The same mineral aggregates and asphalt cement enter into both types of pavement; the exact proportions are somewhat variable, although they may overlap; that is to say, you may specify from seven and a half to nine per cent. asphalt, so that one pavement on approaching the maximum and the other approaching the minimum, would cause an overlapping.

Q What about asphalt block? A Well, asphalt block is a different type of pavement, to the extent that it is a formulated pavement and laid in its more or less solidified state to a base of some sort; whereas bituminous concrete pavements, as Warrenite Bitulithic and National pavements, are produced at the plant and dumped on a sub-grade and shoveled and raked to the desired contour, when they are rolled, so that the entire surface of the roadway is an integral mass; whereas with a block pavement the block is a separate unit which is then cemented together to approach an integral mass; although they are both composed of mineral aggregates and asphalt cement.

Q What about the differences in price, other things being equal? A Well, the block pavement would cost more money to lay on the street; or it costs more money to produce a square yard of block pavement than it does a square yard of bituminous concrete material, assuming that the same composition entered into both type pavements and the source of supply were approximately equal; due to the fact that the cost of the asphalt mixture would be a constant at both plants; and balancing against the cost of delivering the material as bituminous concrete mate-

rial and laying it would be the cost of molding the bituminous concrete into moulds; taking the hardened moulds, loading them on some conveyance, taking them onto the job and unloading them and placing them; if the two plants, one producing bricks and the other producing a bituminous concrete mixture, were in exactly the same distance, perhaps, away, that the delivery cost, or the cost of delivery, would be the same, it would be slightly higher in the case of the blocks because they are handled twice; the blocks at that point would be more expensive, because added to the same process that the bituminous concrete pavement is going through must be the cost of moulding them into shape, so that they are delivered on the job at a somewhat higher price than bituminous concrete; from then on the cost of a block asphalt is again increased, due to the fact that the labor cost of laying a square yard of block pavement is higher than a square yard of hot mixed bituminous concrete pavement, where a gang of men, or a definite number of men with a definite daily payroll, might lay 2,000 yards of bituminous concrete, and it is my opinion that they probably would not lay more than five or six hundred square yards of a block pavement; so that the labor cost per square yard would be higher; also there is a cost of the sand cushion which must be placed between the asphalt blocks and the base which must be charged against the square yard. The only saving that an asphalt block pavement has over a bituminous concrete pavement is that the cost of rolling, which is an item in bituminous concrete, is not an appreciable item in asphalt block pavement; but that cost is very small compared with the greater labor cost of the asphalt block pavement;

so that the delivered product of an asphalt block pavement would cost considerably more per square yard of pavement or any definite unit of size than a bituminous pavement.

Q Do you know anything about the manufacture of asphalt blocks? A Yes.

Q Do you know where as a practical matter it is now manufactured? A Well, I have been in asphalt block plants to observe the method used in their manufacture, and also to select specimens to take to my own laboratory for analysis, so that we have had to inspect the source of manufacture; and in fact we have acted as inspectors and engineers on the construction. The particular plant that the blocks were shipped out that I am referring to are from the Hastings Paving Company. I have also been in the plant of the Barber Asphalt Company some years ago.

Q Where is that? A Maurer, New Jersey. And I also went into the plant that was erected for the purpose of making asphalt blocks, that produced a very limited number, located in Philadelphia. That particular plant shortly after going in business decided for some reason or other to leave that business and went into the business of manufacturing asphalt paints and asphalt plastics and things of that sort; so that my actual experience in observing plants has been confined to two plants that actually operated over a considerable period of time.

Q Does the Barber Asphalt Company operate now? A It hasn't operated for the past few years, as far as I know, unless it has started operations within the last few days; but I do know that it has not been in operation for several years; I also know that there was a plant in Brooklyn, but I never had any occasion to inspect the work they did.

Q Let me ask you this question: You said, so far we have predicated our examination based on the other and non-varying conditions being equal in respect to the manufacture of bituminous concrete mixes and asphalt block mixes; now I am going to ask you same questions in respect to whether there are any changes in the statement that you make that asphalt block is generally a more expensive type of pavement. Does it in any way change by the location of plants that manufacture asphalt, as compared with plants that manufacture bituminous concrete? May I ask, can bituminous concrete mixes be manufactured in Kearny? A What do you mean by that, a bituminous what?

Q Concrete mixes; the ordinary sheet bituminous concrete like the State Highway C-abc 1 or 2. A Yes.

Q In can be made in Kearny? A Yes.

Q As a practical matter, is asphalt block made in Kearny? A So far as I know, I never heard of a plant being in operation in Kearny.

Q Where do the Hastings people make their block? A I heard it stated that it was Hastings, New York, but it was my impression that the plant is not actually located in Hastings; I don't just recall what the mailing address of the plant is, but it is in the immediate vicinity of Hastings.

Q So that there are no changes in the result brought about by virtue of the location or availability of material for the manufacture of bituminous concrete or asphalt block? A Yes, to this extent, that if the Hastings Paving Company had a block plant in Kearny, the cost of delivery on the job would be lower.

Q I mean as a practical matter; not if there is such a plant. Is there such a plant there? A

There is not; but in view of the fact that one paving material is being shipped from New York State and the other could be purchased within a very few miles of the job, it would tend to make the difference in price greater.

Q Even greater than the natural difference? A Yes.

Cross examination by Mr. Fitzsimmons.

Q Mr. Haller, these three types of pavement, as far as the ingredients are concerned, are all practically the same, aren't they? A Yes.

Q The only difference is in the process of manufacture and the process of laying? A And the slight, although it has not material effect, difference in composition.

Q Do you say that asphalt block is more durable and more serviceable than Warrenite or National pavement? A I would not; although, may I modify that; I believe as an engineer that Warrenite pavement is better type of construction than National pavement under usual conditions, because of the difficulty of securing the component parts that a National pavement makes necessary.

Q A different binder? A Yes. I would say that asphalt block pavements are no better than Warrenite Bitulithic pavement.

Q In the laying of an asphalt block pavement on a base of a certain depth, isn't it true that if you want to repave or repair any of that surface, that it is a very simple matter with the asphalt block to do so, by merely replacing the blocks? A It is easier to make repairs with asphalt block pavement than it is with Warrenite pavement.

Q Or any other sheet pavement. A Or any other sheet pavement; it can be repaired without

having the asphalt plant actually in operation nearby.

Q So that where a municipality—talking now from your experience as an engineer—advertises for an asphalt block pavement in competition with Warrenite and National, would you say that it would be robbing the people in asking for bids on those types of pavement? A I never like to use the expression "robbing the people," so if you don't mind, I would answer that in this way: I would say that a municipality would get as serviceable and durable pavement, except that the cost of that equivalent pavement would be higher.

Q What is your definition of equivalent types of pavement from an engineering standpoint? A By equivalent pavements I would mean pavements that had equal durabilty, longevity, riding qualities, physical appearance and ultimate cost.

Q Then it is a fact, as far as these three types of pavement are concerned, that they would be equivalent in type, in your opinion, if it was not for the question of the difference in cost between the two patented pavements and asphalt block; isn't that true? A That is right.

Mr. Schloeder: And physical appearance.

Q That is true? A Yes; the appearance is substantially the same; I would not state that the difference in appearance would be a factor against it.

Q So that if the term "equivalent" includes the question of price, how can unpatented sheet asphalt be considered the equivalent of Warrenite Bitulithic and National pavement, since it is claimed that the former is much cheaper;

how could they be considered equivalent? A I don't know that it was considered that these three pavements had a material difference in cost; it is my opinion.

Q Isn't it a fact that the non-patented sheet asphalt, or non-patented bituminous concrete—

Mr. Schloeder: Which is it, now?

Mr. Fitzsimmons: Either one or both.

A Both about the same price.

Q —Is cheaper than National pavement and Warrenite? A. Where an actual purchaser pays more money for Warrenite and National pavement than he would for bituminous concrete or sheet asphalt, that is due in my opinion to the fact that the royalty is constituting the difference, rather than the difference in cost of manufacture.

Q Therefore, how could a non-patented sheet asphalt or a non-patented bituminous concrete, or both, be included as equivalent of National pavement or Warrenite Bitulithic, if the price was different? A In the strict sense of the word they would not be equivalent due only to the one difference and that would be the price; the non-patented pavement would be lower in price. It would be my judgment, however, as an engineer in writing a specification, that I would permit the non-patented pavement to be bid on in competition with those pavements, because if I could get the same quality and durability at a lower price, or lowal ultimate cost, I would then think I was fulfilling my duty as an engineer, by giving them their money's worth, so to speak.

Q Wouldn't you say that Warrenite Bitulithic is more durable than sheet asphalt bituminous concrete? A I would not.

Q Doesn't it depend upon the specifications? A It would be possible to write a specification with sheet asphalt bituminous concrete that will produce a very durable pavement; I would state that it is possible to write a specification for sheet asphalt pavement and bituminous concrete, and such specifications are widely used, that would produce a pavement that would have the same resistance and duration and wear and the same durability as the patented Warrenite Bitulithic pavement; that is my opinion.

Q Have you examined the specifications in this matter? A I have not.

Q So that you are not in a position to say, under these specifications, that these three types of pavements are not equivalent in type? A No; I don't know that they are equivalent, because, as I say, I haven't actually read the specifications.

Q You cannot say that they are not equivalent under these specifications? A No, I cannot, not at the present time; not until I have read them, at which time I can.

Q Now, Mr. Haller, under Article 4, Section 188, Laws of 1923 of the State of New Jersey, the following appears: "Whenever any patented, proprietary pavement or paving material, or ingredients used in paving, is included in the specifications, it shall be the duty of the board or body having charge of the work not alone to specify such type of construction, but to place in the specifications one or more equivalent types of construction upon which no patent exists, or upon which there is no proprietary right or condition as an alternate type, and bids shall be asked for on the various types so specified, and the award shall be made to the lowest responsible bidder on the types of construction so placed

in competition by the governing board''; having that provision of the act in mind, isn't it possible to place in competition, under proper specifications, three types of pavement, namely, asphalt block, National and Standard Bitulithic? A It would be a foregone conclusion that asphalt block pavement would be the highest bid pavement of those three types, unless some reason that I at this time cannot think of would enter into it. I know of no asphalt block pavements that have been built at as low a cost during the same year and in the same locality with the labor cost constant, as Warrenite and National pavement.

Q Won't you answer this question as I put it? Under proper specifications couldn't they be made to be equivalent in type? A No, they couldn't, because in order to bring the cost to a constant it would be necessary to decrease the thickness of the asphalt block pavement to such a point that the saving in material would offset the greater cost of manufacture and laying the blocks, and then they would not be equivalent in durability.

Q So that we come back to the question that the only difference in your opinion is the question of cost, otherwise they would be equivalent in type? A Yes, exactly so.

Re-direct examination by Mr. Schloeder.

Q Now, Mr. Haller, will you read these specifications? A If you are going to ask me any definite questions I would want to read the entire specifications through, and that would take me some time, if you are going to ask me definite questions.

Mr. Fitzsimmons: Mr. Schloeder, I will agree when we take testimony, if you want to ask Mr. Haller some questions based on these specifications, you can include them at that time.

Q I call your attention to the specifications, the fact that the layer provided for Warrenite Bitulithic is two inches in depth, whereas in the asphalt block it appears that the depth is two and a half inches; does that make any difference?

Mr. Fitzsimmons: I object to that as being leading. The specifications speak for themselves.

Mr. Schloeder: I am calling his attention to the specifications.

A The specifications do show that the Warrenite pavement should be two inches in thickness after rolling, the National pavement two and a half inches in thickness, and the asphalt block two and a half inches in thickness, which shows an advantage in the case of Warernite pavement in the saving of one-half an inch of pavement; in other words, there is one-half inch less material in each square yard of pavement.

Q Would that have any effect on the price of asphalt block? A It would make the thicker pavement more costly, due to the added amount of material necessary to produce a square yard of pavement.

Re-cross examination by Mr. Fitzsimmons.

Q And as a result of that the taxpayers would save that much money, assuming that Warrenite

was the low bidder? A They would save money to the extent that they would get a two inch pavement at a lower cost than they would get a two and a half inch pavement; of course, a two and a half inch pavement should have a greater life than a two inch pavement of the same composition.

The taking of further depositions was continued to September 16, 1929, at three o'clock P. M. at the office of Messrs. Riker & Riker, Newark, New Jersey.

Continuation of depositions in the above-entitled cause, taken before me, Harry Schirmer, a Supreme Court Examiner of the State of New Jersey, at the office of Messrs. Riker & Riker, 24 Commerce street, Newark, New Jersey, this sixteenth day of September, 1929, at three o'clock in the afternoon.

Appearances:

Nicholas S. Schloeder, Esquire, attorney of prosecutors.

Thomas E. Fitzsimmons, Esquire, on behalf of Messrs. Riker & Riker, attorneys of Patrick Maher, respondent.

Deposition of Ralph T. Haller, direct.

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

RALPH T. HALLER, being recalled for further examination, on his oath deposes and says:

Direct examination by Mr. Schloeder.

Q Mr. Haller, at our last hearing you stated that you had not examined the actual specifications in these proceedings providing for the improvement of Davis avenue; is that so? A That is so.

Q Have you looked at them since? A I have.

Q Now, as a result of your looking at those specifications would your previous testimony be modified in any way? A Well, it would modify it to the extent that where I previously stated that I had not examined them and therefore knew nothing about them, since then I have examined them and know something about them at the present time.

Q But I mean the substance of your testimony; would it in any respect be modified other than you have already modified it? A Well, it would only be modified by making concrete illustrations of some of the points that I generalized on before. For instance, in looking them over from the time of my last examination until today, I notice the fact that the thickness of the different types of pavement is different; that is to say, all of the pavements are not the same thickness.

Q Is your testimony changed or modified in any way? A It is not.

Deposition of James H. Howard, direct.

Cross examination by Mr. Fitzsimmons.

Q Mr. Haller, at the previous hearing you testified that by an equivalent pavement you mean a pavement that had equal durability, longevity, riding qualities, physical appearance and ultimate cost? A That is to.

Q You still say that you would consider these three types of pavement equivalent types of construction if it were not for the question of the difference in cost between the asphalt block and the two patented pavements? A I would; with the same slight modification that I previously made; I stated that asphalt block does not have the same physical appearance, but it is substantially similar enough so that it could be called an equivalent.

Mr. Schloeder: That is our case.

STATE OF NEW JERSEY, }
COUNTY OF ESSEX. } SS.

JAMES H. HOWARD, being first duly sworn according to law, on his oath deposes and says:

Direct examination by Mr. Fitzsimmons.

Q Colonel Howard, what is your business? A I am a consulting engineer on roads, streets and pavements and conduct my own testing laboratories of materials used therein.

Q How long have you been so engaged? A This is my 41st year in connection with the construction of roads, streets and pavements, de-

signing them, writing specifications, personally laying them, and later on supervising construction and details relating to the art.

Q Will you briefly outline your experience in those capacities with particular reference to municipalities for which you have done work? A I prepared the specifications for all the kinds of pavements used at different intervals in the past years up to very recently for New York City, Boston, Philadelphia, Newark and twenty or thirty others, large and small; that means the contract requirements and the specifications which give the details necessary to be known and necessary to be enforced in the construction of each kind of pavement.

Q Have you examined, and are you familiar with, the specifications in this case providing for the improvement of Davis avenue, in the Town of Kearny? A Yes, sir.

Q Paragraph 4, P. L. 1923, known as Chapter 188 of the laws of that year, provides as follows: "Whenever any patented, proprietary pavement or paving material or ingredients used in paving is included in the specifications, it shall be the duty of the board or body having charge of the work not alone to specify such type of construction, but to place in the specifications one or more equivalent types of construction upon which no patent exists, or upon which there is no proprietary right or condition, as an alternate type; and bids shall be asked for on the various types so specified and the award shall be made to the lowest responsible bidder on the types of construction so placed in competition by the governing body"; now, would you say under the provisions of that act, that to put National pavement, Warrenite Bitulithic

and asphalt block in competition would be fair and reasonable competition, and that those three types of pavement are equivalent types of construction?

Mr. Schloeder: Just a minute. You have asked two questions and I object to your asking two questions in one. One question is, is it fair and reasonable; and the other is, is it an equivalent type of construction. They are two different things. I have no objection to you asking the questions separately.

Mr. Fitzsimmons: I will change the question.

Q I will ask you first, having in mind the provisions of that act, whether or not to place these three types of pavement in competition is fair and reasonable, under the specifications which are in force in this case? A Yes; under the specifications as set forth for the pavement of the roadway of the street in suit.

Q Secondly, I ask you whether or not, having in mind the provisions of that act, in your judgment these three pavements are equivalent types of construction? A As specified in the contract in suit, they are.

Q Mr. Haller and Mr. Beucher, witnesses for the prosecutors, have both defined equivalent types of pavement as meaning those which have equal durability, longevity, riding qualities physical appearance and ultimate cost; do you agree with that definition of equivalent types of construction? A I do, except that equivalency, in my opinion and from my experience, has nothing to do with cost, when the same general composition is used for the three pavements placed

in competition as in these specifications. There is one other matter than can be put in there, and that is repairability, for eventually all pavements must be repaired; and even with repairability included, these three types as specified in these specifications are, in my opinion, equivalent. Cost has nothing to do with the comparing of them; it has no bearing from an engineering standpoint, in comparing different kinds of construction of the same general type.

Q Why do you say that cost has no bearing on the question of equivalent types of construction? A I have to first state that this question of cost should be divided into two parts. If it is the cost that is given to the contractor to prepare his bid on, then he would have to add a reasonable profit. That I would speak on if you permit me to state it. I presume in this case it is a question of the cost to the taxpayers, and from that standpoint I will speak, if you wish.

Q You give us your own idea as to whether in your judgment the cost does or does not enter into the equivalent types of construction. A The problem of cost of pavements is a local one. It varies in the different cities between the three types here of pavements as between other types, depending upon the cost of the materials, the location of the works or plant where the compositions are prepared, either one of the three kinds of this type of pavement (they all being bituminous pavements); the availability of the source of expert labor in the locality for preparing them at the works to have the composition made; for the spreading and finishing of the pavement on the street (the construction of the pavement and laying of the pavement in-

cluded); and the time of the year, whether it would be freezing or not, makes quite a difference between these two pavements; two of them can be wholly spread and laid in cold weather, or freezing weather—

Q Which two? A The two being Warrenite Bitulithic and the National. The asphalt block pavement under the specifications in suit would not be laid, according to the specifications, in frosty weather; and the time of the construction or time in which it must be done also makes a difference in regard to cost.

Q Now, will you tell us what ingredients are used in the making of National pavement? A You understand, my answers are entirely upon the specifications in suit, and not as National pavement has been laid otherwise, or elsewhere. I will answer the question by stating that the National pavement specified in this case requires a bituminous concrete or binder layer to be spread upon the prepared foundation hot, rolled and finished to a thickness of one inch; the mixture or composition of the wearing surface also to be placed on this binder also is to be one and a half inches thick when finished. It is composed of natural mineral matter, as found in nature, heated and thoroughly mixed bitumen and cemented together by asphaltic cement. The patents connected with it are the Popkis patents. I briefly state the gist of those patents.

Q Under these specifications, what ingredients are used in the making of Warrenite Bitulithic pavement? A The ingredients are crushed stone, sand, sometimes a little powdered limestone, these being the mineral ingredients, which are cemented together with asphalt cement. The construction of the pavement, how-

ever, is controlled by patents; it is not in the ingredients thereof, but in the method of putting the three portions thereof together on the street. It seems to me proper to state that in the main, with this Warrenite Bitulithic pavement, the bituminous concrete is prepared of relatively coarse crushed stone, ranging from coarse pretty close to even about one-quarter of an inch in size, mixed hot and cemented together with asphaltic cement, spread in place, and not rolled. On this is placed a finer grain asphalt concrete mixture, principally sand and bitumen, being spread by hand, and the second mixture is rolled onto and into the lower mixture; the finer surface is treated sometimes with fine sand and sometimes powdered limestone, spread on and rolled into place. This is under the Wallace patents and—I don't know the patents now, but they are all in my office, if you want them; but I only tell you this; and it seems wise to state that while they are all bituminous pavements, the method of putting them together is the only real difference. When they are all done, it is all an asphalt concrete pavement, including the asphalt block, which is also an asphalt concrete pavement.

Q What ingredients are used in the making of asphalt block? A Trap rock or other hard, suitable stone is crushed, and when crushed is comingled from relatively coarse pretty close down to and including powdered stone. These are heated and mixed with asphalt cement and the mixture compressed into block form at the factory or works where made. The blocks are then sent to the location where they are to be used, and in these specifications are laid by hand on a mortar bed of one-half inch thickness, the

mortar bed being composed of cement and sand. I have not spoken of the base, because the base or foundation of all these pavements is the same. After they are placed squarely and firmly together in a uniform surface, that surface is painted over with a hot asphalt cement, or to the common mind, it is hot tar poured upon and painted over the outer surface, which surface is called a squegee coat, and while it is hot, it is ironed into the joints between the blocks and it also covers the entire surface, making the surface continuous and waterproof.

Q Now, Mr. Howard, would you say that these three types of pavement are all bituminous in character? A Yes; they are all bituminous concretes.

Cross examination by Mr. Schloeder.

Q You stated that they are all bituminous in character; that is because they all have a bituminous cement; is that it? A That is why they are bituminous, because they have a bituminous cement to hold the mineral aggregate together.

Q You stated in the manufacture of asphalt block, the mixture is compressed; is that a fact? A It is compressed with asphalt blocks, and the other mixtures also are compressed in the finished pavement.

Q Now, before this mixture is compressed, what kind or character of mixture is that; is that a bituminous concrete mixture? A A relatively fine grain bituminous concrete, yes.

Q Could that mixture be used as a sheet pavement if it were so desired; could such mixture be used as a sheet pavement? A The asphalt concrete mixture as prepared for making blocks?

Q Yes. A Yes, I have prepared it in many parts of this country; it could be hauled to the street when hot, spread and laid just the same as sheet asphalt is laid, except it would require a little heavier roller, for the reason that the asphalt cement in that is a little softer than the asphalt cement used in others, or you could have it a little hotter.

Q So that the difference between this mixture and the block would be the fact that the block was the result of an additional process, that is by compressing it into blocks; isn't that so? A The finished asphalt block pavement is the result of pressing the asphalt concrete into the form of blocks.

Q I am not talking of pavements; just answer my question. A Yes.

Q I am talking of the blocks. A I have answered you. Just read my answer.

Q Has the thickness of any pavement anything to do with its desirability? A Yes. Do you mean in these three pavements in suit?

Q No; any one. A Do you mean any pavement? Certainly.

Q Would you consider an asphalt block such as that used under these specifications of the same durability, for the same thickness, as Warrenite Bitulithic? A The asphalt blocks are required to be two and a half inches in thickness, and the Warrenite here required is two inches thick; they would be substantially as durable under those conditions.

Q I am not asking you that; I am asking you now whether or not Warrenite Bitulithic pavement of the composition set forth in these specifications is of substantially the same durability as an asphalt block of equal thickness, or vice

versa? A If you substitute two inch blocks in these specifications for two and a half inch blocks, then the Warrenite Bitulithic would be more durable?

Q Would be more durable? A Yes, sir; two inches of Warrenite pavement; but you can't use two inch blocks under the conditions required to be laid by these specifications.

Q So that asphalt block for a given thickness is not as durable as Warrenite Bitulithic; is that your testimony? A Certainly not; because you say Warrenite Bitulithic, but you fail to tell what the Warrenite Bitulithic is to be.

Q For the same thickness, that is what I am asking you. For the same thickness; that is my question. A That is what you meant to ask me, wasn't it?

Q Will you just answer my question? A You say you didn't say that.

Q (Last question repeated.) A Under these specifications, that would not be true. Warrenite Bitulithic would be more so—

Q I am not asking you that. A But under other specifications, with a different base and different treatment underneath; two inches in that case would be equivalent to two inches of Warrenite Bitulithic pavement; but you have to change the sub-structure.

Q What is the difference? I thought the sub-structure was the same in both cases. A It isn't in these specifications.

Q Where is the difference? A The asphalt blocks in the specifications in suit require a half inch of mortar, composed of, I think, four parts of sand and one of Portland cement, to be laid over the prepared macadam base, and the asphalt blocks are placed thereon. Under these condi-

tions you have one thing. Now, if the base were Portland cement concrete, which is really, as you know, a solid continuous base, and then on that a cushion, as it is called, of mortar would be placed, and the blocks be placed upon that. Under those conditions I would be willing to have the blocks two inches thick, because of the formation of a consistent contour or a continuous monolith of concrete pile to be put under this, and I would advise it; but under these specifications I would not advise a block thinner than two and a half inches, because the thinner thickness of block would cause, in my opinion, the blocks to crack and not be so firmly and rigidly held together; therefore I would require a two and a half inch block.

Q So that the requirement for two and a half inches of asphalt block arises ex necessita from the use of asphalt block; isn't that so? A Yes; it arises ex necessitata in loco, or in situ.

Q Of course that affects the cost, doesn't it, Mr. Howard? A It would increase the thickness of the block and certainly increase the cost of the block to the contractor and to the city or the municipality; but that is in theory, because they might reduce their prices to drive a fellow out of the market. You can't judge cost by what they are bidding.

Mr. Schloeder: I ask that that be stricken out as not responsive.

Q Now, Mr. Howard, do you know where asphalt block is manufactured? A I know where it has been manufactured, and where asphalt blocks are manufactured.

Q Will you kindly answer my question. A You ask where asphalt block is manufactured. I

will answer where asphalt blocks are manufactured.

Q Answer it. A Asphalt paving blocks are manufactured in New York State, principally at Hastings on the Hudson River; in Florida principally at Tampa; that is all I can say, as to where they manufacture at this time.

Q You know of no other places, is that correct, Mr. Howard? A I know of places where there are asphalt paving block plants but they are not in operation; they can manufacture at any time.

Q I mean, you answer that you know of no other places where they are now manufacturing asphalt block, other than those that you have named; isn't that so? A No; that isn't so; for I regard an asphalt block factory which is ready to deliver or can start at any moment as practically a place where asphalt blocks are made, although for the moment there may not be any contracts requiring blocks from that particular one.

Q What about bituminous concrete mixtures in general; do you know where they are manufactured? A Irrespective of these specifications, do you mean?

Q Yes; irrespective of these specifications. A Montreal, which City I am serving; Boston; roads built in the past and now being built by the State Highway Department of New Hampshire—

Q I mean in this immediate vicinity. A Massachusetts; all over New Jersey; Essex County; Hudson County; I could name over a hundred.

Q A hundred places, even Kearny itself; isn't that so? A I don't know anything about

Kearny, what they have been laying, except that I know they have been laying Portland cement concrete pavements, because I have been testing them. These asphalt concretes vary very much in their composition and thickness, but that is the general term covering everything except sheet asphalt pavement.

Q Are you familiar with the State Highway specifications for road surfaces, called C-ABC 1 and 2? A I am familiar with both; I am laying several miles of one of them now.

Q With respect to their physical or chemical composition are they anything like Warrenite Bitulithic? A They use the same ingredients.

Q Why can't they be used? A They are put together in a different manner, the Warren patent being the manner in putting them down.

Q The manner of putting them down, or the manner of laying them on the street? A I mean putting them together on the street.

Q Not of mixing them in the plant? A Not of mixing them; no.

Q So that, as far as mixing in the plant is concerned, they are more or less identical; is that it? A The City of Newark's municipal plant, and municipal plants throughout the country, and all asphalt paving plants which are required to lay open void preparations of the aggregate, of which there are many hundred now, could make Warren mixtures as prescribed in these specifications, that they shall be pre-mixed in two categories and then spread in two layers and placed together on the street. The only thing that prevents it is the method of putting them on the street.

Q What about the durability of the— A I am assuming that the patent is valid, you under-

stand, when I say that. Of course it is valid until it is declared invalid by some court.

Q What about the durability of this bituminous concrete coarse aggregate mixture that I have referred to, and which are identified locally in the State Highway specifications as C-ABC 1 and 2; are they as durable as Warrenite Bitulithic? A In my opinion, no; they are not inter-rated. When finished they are homogeneous; all F-ABC 1 and 2 pavements of the State of New Jersey, when finished on the street, are a homogeneous covering; the mixture and the analysis would be the same, only where in Warrenite Bitulithic you take it and crowd into it the fine material, you pack it down into the lower strata, force it down and in, so that they get an unusual toughness and deadness of the upper portion of the asphalt concrete pavement. There is the principal part of the patent.

Q Will they last any longer as a practical matter, not as a theoretical matter of composition? A If both are laid in accordance with the State Highway specifications, I think the Warrenite will last much longer, of course; eventually both types would have to be repaired; all kinds would have to be repaired, but the asphalt concrete would have to be repaired similar to the other. The best definition of a pavement that I can give you is one that can be repaired right along indefinitely at a reasonable cost.

Q The initial cost of laying asphalt block in Kearny, New Jersey, is higher than a bituminous concrete sheet asphalt, isn't it? A You mean of the F-ABC-1 type?

Q Yes. A Not under the specifications in suit; it would be more expensive than that.

Q How about— A But F-ABC-1 would not be laid there under these specifications.

Q Could you use 2? A Yes, you could, two layers; you get down to the first layer of macadam; then you put on the upper layer without the danger of mixing some loose stone from the macadam in it and spoiling it.

Q Would that cost less than asphalt block in Kearny? A That is problematical. You have to put down two layers there and it would probably cost a little more or less, according to what rate could be gotten, and the nearest source of supply, that is from Hastings on the Hudson, that is by water, for asphalt blocks, counting freight; that is F-ABC would cost more or less according to what freight rates could be gotten by water where the blocks are made, I believe on the waterfront of Kearny, that I don't know.

Q Now, that could be made in Kearny, couldn't it? You heard that testified to? A The asphalt blocks couldn't be made in Kearny.

Q I am talking now of the bituminous concrete pavement. A Certainly.

Q Now, it cost less to ship the materials to Kearny than it does from Hastings, doesn't it? A But the material in the case of the asphalt concrete pavement is one entire aggregate of materials. When I referred to shipment, I simply meant the finished block ready to be laid by hand on the road.

Q I should judge it would certainly be cheaper to ship the materials comprising bituminous concrete mixes from a plant located directly in Kearny, than any kind of a composition that would come from Hastings, New York; isn't that so? A No; all materials that go into asphalt concrete pavements have to be shipped

into Kearny from the source of supply; the trap rock from up the Hudson.

Q I am not asking you that question; I am asking you one question at a time? Isn't that so? A You mean you should ask me one question at a time; but—

Q Just answer my question. (Last question repeated.) A I understand you to mean that the hot prepared asphalt concrete mixture, mixed in Kearny at one of the excellent plants over there—one of the best plants there is owned by Mr. Flaherty; and there are other plants there—I should judge that that mixture could be hauled from a plant in Kearny, which has made the mixture, to the street, spread and laid, including rolling and finishing this two-layer pavement, at a cost a little above or a little below the cost of making the asphalt block at Hastings, shipping them down, taking them to the street, laying and finishing them in the manner required by these specifications. That difference, of whether it is more or less, would depend upon the freight rate from Hastings down the Hudson River and out here to Kearny; that I don't know.

Q You don't know anything about the freight rates? A I don't know; therefore I can't say whether it would be more or less; I don't know the freight rates, and I don't know what the contractor would be willing to bid on the same, because in the early Spring they bid low, because to get the gangs together, and later in the season the prices rise a little. I am speaking entirely of the two-course asphalt concrete pavement. I think the one-course could be laid cheaper than the block under specifications, to

be specific, for that pavement, as against the blocks; but not under these specifications in suit.

Q Suppose I were to tell you that according to the record in this case the successful bidder, Mr. Maher, bid $3.50 per square yard for asphalt block, and $2.85 for Warrenite Bitulithic; how would you account for that? A On the basis that he is bidding his type, also whether it be Warrenite pavement or block pavement, that in my opinion could be accounted for only by the prices obtained for those surface layers from the makers thereof.

Q Now, up at Hastings, Mr. Howard, what would cost more, the finished asphalt block or the bituminous concrete, which as you previously testified could be employed as a sheet pavement? A You understand, you asked me which would cost more to the buyer right close to Hastings?

Q Yes. A Asphalt block pavement finished and delivered as per these specifications, or an asphalt concrete pavement, F-ABC 2, which would have to be used; that is a two layer asphalt concrete pavement for the State of New Jersey.

Q You don't understand my question. A I think that the blocks naturally then would underbid them every time.

Q You don't understand my question. I am not talking about shipping them from Hastings; I am talking now about what is the relative price of the finished asphalt block and the bituminous concrete mix which could be used as a sheet asphalt in Hastings, New York. A I understand you to mean, although you have not said it, that the mixture used for the blocks were used right at Hastings for sheet pavement; which would cost the most?

Q Yes. A The mixture being hot and ready to make the blocks and the mixture being hot and ready to take to the street, it would cost a little less to take it to the street than using the block there at Hastings.

Q It would be an absurdity to have the asphalt mixed in Hastings and ship it down here and use it on the street here; you wouldn't use that, because it would cost too much and it would cool? A No; to allow it to get cold would defeat the use of any bituminous mixture made at Hastings and spread hot here.

Q You have heard counsel read the statute; what do you think that statute was passed for?

Mr. Fitzsimmons: I object to that; the witness is not qualified to say what the intent of the legislature was.

Q What does it mean; that is what I want to know; what was the purpose of it?

Mr. Fitzsimmons: I object to that. He has no idea what the purpose was.

Q Do you know? A I know what the statute says must be done. I think that statute requires that all patented pavements must be placed in competition with non-patented ones of the same general composition.

Q The same general composition; is that it? A Practically that; the same type; it means that, so that a patented and the unpatented ones are placed in competition. That undoubtedly means that they would give more competition than if they called for the patented pavements direct.

Q Could competition be furnished such as it sought by block which is $3.50, whereas a Warrenite Bitulithic is only $2.85 or $2.65, respectively? A Competition could be sought. Whether or not one would underbid the other would not be known until after the receipt and opening of the bids.

Q At these prices they couldn't possibly furnish any competition, could they, to the Warrenite Bitulithic? A Yes; I think that the fact that asphalt blocks could bid in there would force all the other bidders to bid a little bit lower than they would otherwise.

Q That could be true of any competition, no matter how specified, could it not? A Yes; any bona fide competition for anything, naturally; you understand that the bidders would lower their prices rather than have a monopoly. That is why we have these all over the United States, the Public Service Commissions all over the United States. In that case, however, sometimes competition is impossible, and therefore we dictate what the price must be; trolleys and street railway prices, for instance.

Q What kind of competition can asphalt block furnish in Kearny? A I can prevent pavements of this type, asphalt concrete, from being charged for higher than they would otherwise be, particularly here, where you have two patented pavements which have been admittedly controlled; I think this checks the price of these pavements.

Q Up to the price of asphalt block; isn't that so? A The price isn't known until after the letting. Subsequent to the lettings, yes.

Q Do you think the fact that the nearest plant which is now manufacturing asphalt blocks, to

the Hastings company, which according to the testimony is located in Florida, and made mostly in Tampa, affects the control of the Hastings company over the market? A Yes, it does; there are three plants in Tampa competing with one another, one of which was a branch of the Hastings company; it checks them in that territory and the territory around there, but not in New York and vicinity.

Q Of course blocks could not be shipped from Tampa, Florida, in competition with blocks manufactured in Hastings, for placement upon a pavement located in Kearny, could they? A Certainly not; it might from Brooklyn, if they started up the Brooklyn plant again.

Q If they started? A Give them a big order over there and they will start up right away. One of the plants laid a great deal over in Staten Island and Brooklyn; that is known as a mixing plant, the blocks being manufactured with a block press invented and patented by Mr. Hageninian.

Q Do you know whether there are any patents on the process of manufacture used by the Hastings Company? A No patents in the blocks; no patents in the composition; there may be some patents on their presses.

Q But you don't know; is that it? A Certainly not. In Toledo, Ohio, they manufacture asphalt block presses and they have them all over the country under different patents, and they all make the same block when they are finished.

Q Toledo, Ohio? A There might be some patents on a cam where you turn it over, or some other, but the basic patents, which originally were the Wilkinson patents, Baltimore, about forty years ago; the original patents which then controlled the presses have long since run out. Walter S. Wilkinson, that is where they started to make them, at Baltimore.

Q Now, you testified under the specifications that Warrenite Bitulithic and National pavement and asphalt block are equivalent; what did you mean by that? A According to these specifications, if lived up to, which I presume would be done, in constructing the pavements, the resulting pavements, whether Warrenite Bitulithic, National pavement or asphalt block, as specified to be laid down here in these specifications, would be equivalent one of the other in respect to the purpose of providing a paved roadway of substantially the same durability, longevity, riding quality, repairability and resistance to the elements. The elements do even more damage to a pavement than the traffic itself.

Q You heard Mr. Haller testify in respect to the relative cost of block pavement and bituminous sheet pavements; do you remember that? A I didn't listen to Mr. Haller's testimony; once in a while I listened to it; and Mr. Haller is an excellent engineer and we generally agree pretty well.

Q (Reading from testimony.) I read from pages 52 to 54 of Mr. Haller's testimony. Do you agree with those statements of Mr. Haller? A I do not; he has left out several elements.

Q What are they? A That was answered in a general way and not predicated or based upon the specifications in suit, or certain provisions of these specifications which he then was not familiar with; he did not intend to make this answer at all refer particularly to these specifications.

Q In what respect do you think he would have modified his answer as a result of reading the specifications? A Not to modify; I think he would have given a different answer.

Q Let us see where your answer would be different from his, as a result of your reading and knowledge of these specifications. A His answer is too long to take it up and explain it in one short response; but at that time, as I understand, he had not read these specifications in suit.

Q Let us disperse that from your mind; you understand here at this hearing he has read them; just disabuse yourself from that and let us be concrete; answer my question; where do you differ from these remarks of Mr. Haller's? A Keeping in mind the specifications of the contract in suit, it is evidence that the construction of a pavement is the preparation of everything going into it elsewhere; taking it to the place where it is to be laid; spreading it; placing it upon the prepared foundation and finishing it, with all the work necessary to do so at that place.

Q We will concede all that; let us get to the point. You have repeatedly referred to these specifications as if they changed the general proposition now; I haven't heard a single thing from you which in any way would change the general testimony of Mr. Haller. Now in what way do these particular specifications change it? A I will continue my answer to the first question, if you don't mind, my answer being predicated upon a definite, specific thing, namely, the specifications, and not upon generalities, as was his answer, which was a perfectly proper thing, in my opinion, in order to inform and bring those listening to the general matters about those pavements.

Q Please answer my question. A The mixing of the composition for the asphalt blocks; the transporting or hauling them to the street; lay-

ing them as per these specifications, would constitute the delivery to Kearny of an asphalt block pavement; the preparing of either the Warrenite pavement or the National pavement, as specified here, hauling their mixtures or compositions to the street; spreading them, and finishing the pavement there, would constitute the laying of either of these two pavements; the only difference in a very general way is that the blocks are compressed, or the composition of the blocks is compressed before it is sent to the street, whereas the other two, Warrenite and National, under these specifications, are required to be compressed on the street. With that statement, what is your real question?

Q Well, now, does it cost more to compress blocks per cubic yard— A No; per square yard.

Q Or square yard, for the same thickness, than it does to compress the sheet asphalt on the street? A I have run asphalt block plants and I can explain that any plant, with compression only, can do it with less cost per cubic yard, per cubic mass or square yard of a given thickness, than compress it on the street or suitable roads and finish it; that is compression only.

Q Of course in that case the block will be at the plant, whereas in the case of the sheet asphalt it would be a finished and complete product, wouldn't it? A Yes; as far as compression is concerned.

Q As far as compression is concerned? A Yes.

Q So that in order to make the block in the same position that you then have the sheet pavement, you would have to ship it, unload it and also prepare it for laying; isn't that so? A No.

Q Well, then, in what respect is that wrong? A You left out quite a number of factors.

Q In other words, there are still more things that I haven't even put in; I haven't put in a sufficient amount of factors to make the comparison still more obvious? A No, those aren't my conclusions; that is yours.

Q Now, let us have some of those factors that I left out; or why isn't that partially true then, except for the fact that I didn't put in all the factors that would make it still more true? A I can't give you a conclusion as to what the difference would be if you only give some of the materials that go into it; you have given some of the factors, but not all.

Q Are you unable to answer that? A Yes; I am unable to answer your question, because it is indefinite and indeterminate, and not based on these specifications.

Q It is too indefinite for you to point out? A Can I tell you some of the factors you left out?

Q Yes, certainly; because what we want are the facts. A The supply of raw materials, crushed stone, and so forth, delivered in enormous quantities to an asphalt plant, is much cheaper than delivering the materials in small amounts at the job in a general way for making asphalt concrete pavements and the block is able to be made very much cheaper from the raw materials; there is a great saving, which cannot be done by small amounts of those things, put into small lots and shipped to a small job like this, of 15,000 yards; the crushing also is done right at the asphalt plants; and they have a cheaper rate of freight for large stone from the quarries than they would pay upon the finished stone. A great many other elements enter into

the thing, which cannot be jumped at. Asphalt block can be laid cheaper and has been laid cheaper than sheet asphalt pavement.

Q Depending upon the place; isn't that so? A Yes.

Q Do you know, Mr. Howard, that granulated sugar is about 35 per cent. cheaper than tablet sugar of the same quality? A What sugar?

Q Granulated sugar. A Than what?

Q Than tablet sugar; compressed of the identical sugar?

Mr. Fitzsimmons: I object to that as immaterial and irrelevant.

A I know nothing about that.

Q You know also that granulated sugar costs more in Alaska than tablet sugar costs in Cuba, don't you?

Mr. Fitzsimmons: I object to that as immaterial and irrelevant; he is not an expert on sugar.

A I don't know; I have been in Alaska and they might sell things very cheap there; I don't know what they might do in Alaska.

Q Other things being equal, equal availability of materials, distances and everything, all things being equal which are not the product of varying conditions, isn't it a fact that asphalt block costs considerably more than a bituminous concrete sheet pavement? A No.

Q It is not? A No; not necessarily.

Q Other things being equal, all these varying conditions that you talk about being eliminated. A No.

Q Isn't it a fact that every asphalt block, before it becomes an asphalt block, is available for use as a bituminous concrete sheet pavement? A Not exactly, no.

Q Why isn't it? A There is a difference in the asphalt cement used, which is quite material, in the block and in the sheet, although they are both asphalt cements.

Q You mean that the asphalt block has a finer aggregate; is that it? A I mean the asphalt cement of bitumen used in the block is different from that used in the other pavement, in some respects.

Q But it is different? A Certainly; it is asphalt cement; it is 99 per cent. or 100 per cent. pure bitumen, but it is a little different in ductility and consistency, which would make it suitable for the block.

Q Why is that? A In order to make the blocks a little more durable; not so liable to be brittle in winter.

Q Now, are these variations that you speak of the product of natural variations which are inevitable in the proper fluxing at the plant of the cement? A No.

Q They are not? A No natural variations, none particularly except the slight human element in making it a little harder or softer, one or the other. By the word natural I mean one inevitable to the manufacture; in that respect they are almost the same; but the asphalt cement is applied to the asphalt block to put it into a sort of a waxy state, and the others are not.

Q Well, let me say, would this difference be the result of mechanical oxidization and the impregnation of filler or other fine material by mechanical means subsequent to the original dis-

tillation? A It isn't mechanical oxidization; that is a slight misprint in the law, which doesn't change the import or the meaning of the law; there is no such thing as mechanical oxidization; it is chemical.

Q You disagree with the statute then, is that it, when they use the words "mechanical oxidization"; there is no such thing as mechanical oxidization; is that it? A Certainly not; oxidization is the uniting of the elements of nature to each other.

Q Are you familiar with the actual prices that are used in the laying of this patent pavement and asphalt block, other than what the evidence discloses in this case? A No; I don't know anything about the prices. My work is entirely engineering and the price matter is not my affair. I see to it when I am in charge that the pavement is laid in accordance with the specification and good. Sometimes the specifications are not quite sufficient to show just what was embraced in them.

Q You wouldn't want to put yourself forward as an expert on prices of the various pavements? A I am not in commerce, sir, no more than you are. They are easily obtained.

Q Let us get back to our question of Mr. Haller. He says the delivery cost would be slightly higher in the case of blocks because they are handled twice; now, eliminating all suppositions and theories, are there any facts that you know of with respect to this particular case which would contravene that statement? A National pavement material is handled four times before the pavement is finished, not including the rolling; Warrenite pavement is handled four times before being rolled. Do you want me to give just why that is so?

Q Now, evidently you don't understand the question. They are talking now about delivery to the job; that is Mr. Haller's reference. A On delivery to the job?

Q Don't let us have any misunderstanding. A Asphalt blocks are loaded onto the barge or cars at one end; then they are unloaded at the town to which they are sent; that is the second handling, isn't it?

Q Yes. A That is the second handling, I would assume, would be unloading it right into trucks to be hauled to the street to be paved, provided the street wasn't on the dock front. Then they are unloaded from the trucks to the sides of the street. That is a third handling, isn't it? Then they are passed by passers, or men, from the sides of the street or from the rows in which they have been laid across the street, down to the face of the pavement under construction. So then men should lay these blocks naturally, standing upon the finished part, and laying them in front of them. That is more than twice, that handling.

Q What about a bituminous concrete mixture? A Starting at the same point, namely, with the finished composition ready to go to the street, in which case the blocks were as blocks and the others were a hot mixed mass that is placed in trucks at the mixing plants; that is number one; hauled to the street and dumped; we will call that two; that is hardly two; that is unloaded from the truck and not handled by men; it is then shoveled forward by shovelers, which is a handling, to the face of the work.

Q Just a minute, now. A Which is handling three.

Q Just a minute. Up to the point that we have arrived at, at the street, there has been practically one handling, and at the same point, with respect to asphalt block, according to your own testimony, there have been three handlings. A No; you have interpreted my answer wrong.

Q Why? A You have forgotten the handling by the men that shovel, taking this Warrenite mixture or the National mixture and shoveling it forward and laying it down at the face of the work; another handling follows, which is raking, which ought to be about equivalent to the other man laying the blocks by hand.

Q That would be three. A That is three only.

Q Now, as to the National pavement, that has to be done twice? A That has to be done twice, because the binder goes through that three, and the top layer, three, and we have the rolling of the bottom layer and the top layer, therefore there would be numerically six with those mixtures and two with the other. Such a comparison has nothing to do with the cost, in my opinion.

Q How many men would be required in each particular case; the same number of men for the same square yards? A From what point do you want to begin enumerating; we omit the men at the plant making the blocks; that is done by machinery, which eliminates really one handling of blocks.

Q After they leave the plant. Are the man-hours for the square yard of pavement for the various types of pavement the same? A From what point of time; after your raw materials arrive at the block plant and the hot materials arrive at the mixing plant?

Q No; at the job. A You mean at the time the mixture was taken on the job hot or the blocks delivered at the job?

Mr. Fitzsimmons: Can you answer that question?

A It is too indefinite and indeterminate; I can't answer it.

Mr. Fitzsimmons: I object to the question. It all depends on how the men work. It is a well known fact that some men work faster than others.

Q Can you answer that question, or are you unable to answer it, or are you unwilling to answer? A I certainly am not unwilling to answer any question. I am here to cite all the facts and I am here to give the answers as I see them. If you like me to answer in general without any specific case, it varies very much with the width of the street and the time of the year and the weather. I would state that it takes more men to handle concrete mixture pavements in general than the asphalt block pavements. The rate of wages, however, is very much higher for this block pavement, especially those who are laying it, but it takes only a very few of them, but with the other pavement it takes a very much larger number of men, with little less rate of wages, except for a few of them, so that the cost of the two, as far as laying it is concerned, from the time that it is spread or ready to be laid, one or the other, in my opinion, I think that tallies with what would occur, a car breaking down from the sheet asphalt plants, which constantly occur, causing failure of the material

to arrive on time, which doesn't ever occur with the blocks, that the chances are that the laying of a bituminous concrete pavement equivalent to the other would cost a little more; but you have to give a specified time and place.

Q In other words, as a result of the breakdown of plants— A That is one thing, in my opinion.

Q And other suppositious things that are characteristic of your testimony throughout, things which might happen. A And in some instances it would be; certainly.

Q Of course, the asphalt plants might be struck by lightning. A In some cases it has been.

Q Let us be a little more definite; Mr. Haller, with commendable frankness, has stated that where a gang of men or a definite number of men, with a definite daily payroll, will lay 2,000 yards of bituminous concrete, in my opinion they could not probably lay more than five or six hundred square yards of a block pavement; of course, he has not told us anything about the breakdown of asphalt plants, or being struck by lightning, or earthquakes, or any other things that would change it. Is he correct, though, as a general proposition eliminating tornados, earthquakes, lightning, breaking down of the plants and other elements of that kind? A None of which had even entered my mind; he means the surface layer of the mixture.

Q What is that? A You couldn't lay 2,000 yards of the binder layer as required by these specifications in suit, and add to it the 2,000 yards of surface layer of the National pavement mixture in one day, and that constitutes a National pavement under these specifications.

Q How about Warrenite? A In this locality, in Kearny, with two plants that the Warrens have over there, you know, over on the Jersey side, right across the river from the place, they could run one plant for their lower layer and one for the upper layer, and I think they could get the 2,000 yards in in one day; but as a rule, his answer being in general, no contractor has two asphalt plants set aside for this. There is one other man that has two plants, and that is Beckman in New York.

Q He also says, the cost of a sand cushion, which must be placed between the asphalt blocks and the base, which must be charged against the square yard; what about that? Is that dependent in any way upon lightning, squalls or tornados or other varying conditions, such as inability to get materials, strikes, or dogs breaking on the sand crushers or the action of the waves on the ocean? A Do you want me to take up those elements that you have stated separately and answer them?

Q I want to know first of all whether they would vary the conditions very much, so that you wouldn't be able to give a concrete answer on what the effect of placing the sand cushion is between the asphalt blocks and the base; is there any charge against the cost of the square yard with reference of course to the bituminous concrete sheet pavement? A If you frame the question and put in the other elements there properly, without any facetiousness, I will answer. Will you kindly frame the question with the engineering elements, without putting in these extraneous suppositions, then I will answer it gladly.

Q I will ask you now for the third time, with the base cost of the sand cushion which must be placed between the asphalt blocks and the base, does that— A Increase the cost of that pavement?

Q Yes. A Certainly, if that is required in these specifications that will increase the cost. It increases the cost of asphalt block chiefly by requiring the usual and necessary sand and mortar cushion below.

STATE OF NEW JERSEY, }
COUNTY OF ESSEX. } *ss.*

IRVING HOCHSTADER, being first duly sworn according to law, on his oath deposes and says:

Examination by Mr. Fitzsimmons.

Q Mr. Hochstader, what is your business? A Consulting chemical and mechanical engineer, specializing in pavements and materials for pavement construction.

Q How long have you been engaged in that business? A This is my twenty-second year.

Q Tell us briefly some of your experiences in connection with paving materials with reference to the municipalities with which you have been consultant? A During the period of time just mentioned I have been connected with some forty or fifty different municipal, state and county governments in an advisory capacity, in testing and inspecting various types of pavement laid by these various municipalities.

Q Now, you have read me paragraph 4, Chapter 188, Laws of 1923, regarding the provisions that where a patented pavement is advertised for, a non-patented pavement of equivalent type of construction must be placed in competition; you have heard me read that? A I did.

Q In your opinion, having in mind that provision, are the three types of pavement advertised for in this case, namely, National pavement, Warrenite Bitulithic, and asphalt block, equivalent types of construction? A In my opinion they are.

Q You have heard me read the definition of Mr. Haller, one of the witnesses for the prosecution, in which he says, equivalent type of pavements mean pavements that had equal durability, longevity, riding qualities, physical appearance and ultimate cost; do you agree with that definition? A Not in whole.

Q What part do you disagree with? A I would leave out the element of cost.

Q Why would you leave out the element of cost? A Why, the element of cost in any pavement construction work is a variable, and a variable can have no equivalency attached to it.

Q What do you mean by a variable? A Why, the cost of a pavement will vary in so many different ways that there is no way of judging what the cost is going to be; it will vary with how much a certain contractor might want to lay a certain type of pavement; it would vary with the time of the year, the cost of the raw materials, and a hundred and one other elements, such as profit and other minor details and large details that enter into the construction of a pavement.

Q Are these three pavements bituminous in character, all of them? A All three of those types of pavement are bituminous in character.

Q Do they contain practically the same ingredients? A The ingredients contained in those three types of pavement are practically alike.

Q Are you familiar with the specifications in this case? A In a general way; I have read them this afternoon.

Q Assuming that in these specifications one of the alternates was bituminous concrete, providing for the same surface, the same thickness of surface as Warrenite Bitulithic, would you say that bituminous concrete would be an equivalent and be as durable as Warrenite Bitulithic? A In my opinion, not.

Q Why not? A Why, the type and manner of construction of bituminous concrete varies considerably from the manner in which these three types of pavement are constructed and laid; the mixture of the ordinary bituminous concrete is usually not as dense as the resulting mixture of either of these three types.

Cross examination by Mr. Schloeder.

Q Mr. Hochstader, you mentioned the fact that costs are governed by many variable elements; isn't that so? A I didn't hear the first part of the question.

Q You mentioned the fact that costs are governed by many variable elements? A That is right.

Q Now, suppose you disregard the variable elements, do you think that one type of pavement would be more expensive than another

type? A Well, you can't disregard variations, or variations of elements.

Q Now, wait a minute; I am asking you one question at a time. Don't argue with counsel; just answer the question. A Repeat that question, please.

Q (Last question repeated.) A I can't answer that without considering the variabilities.

Q Now, would you say that the price of granite block depends upon the availability of the granite, the condition of the labor market, the location of the particular job to the source of supply of the granite block, and other things, as variable elements? A Partly.

Q Why only partly? A When I say there are many elements that enter into the laying of a pavement in a city—

Q Now, how about a macadam pavement? A What kind of macadam.

Q Ordinary macadam; the price of that would also vary according to these variable conditions that you have mentioned? A They certainly would.

Q Would you say that granite block is a more expensive type of pavement than macadam? A It all depnds on where you lay it.

Q Other things being equal. A When you lay the granite block pavement in some places it would be cheaper than macadam, and in other places it might be more expensive.

Q How about the same place: I mean laying it in the same place. A Give me a specific place, please.

Q In Kearny, New Jersey? A I can't answer that question, because I don't know what it cost to put a granite block into Kearny.

Q You don't know anything about costs, do you, Mr. Hochstader? A Just from what I heard read here from the estimates and proposals; I don't profess to be a cost expert myself.

Q Now, Mr. Hochstader, if a granite block pavement was specified, we will say North Carolina granite, what would you consider to be an equivalent type of pavement for a granite block?

Mr. Fitzsimmons: I object to that on the ground that it is immaterial and irrelevant, because granite block is not in issue here.

A Why, I would want to see the place first where they were going to lay the pavement; then I might put in— You don't tell me what kind of granite block, whether it is going to be six inch type or eight inches—

Q Would another granite block from another source of supply be the natural, manifest and obvious alternate for such a granite block? A You mean the pavement is to be entirely constructed of granite block, and the granite block is to come from North Carolina, and say Maine?

Q Yes. A Now, what about it; we will assume that is in your question.

Q Would one be the obvious, natural and manifest alternate for the other? A Not necessarily.

Q Should asphalt block in your opinion be as natural an alternate for the North Carolina granite block as Maine granite block would be? A Well, asphalt block wouldn't be an alternate for granite block anyhow.

Q Why? A Unless they were taking bids for different types of pavement; they are not the same type of pavement.

Q Why not? A One is a bituminous pavement and the other is not.

Q In other words, you think that the composition is one of the factors to be considered? A The composition is a factor if you want a pavement of an equivalent type; you can't call a granite block an equivalent type of an asphalt block.

Q Now, why not; aren't they the same durability? A Well, one is naturally composed of stone, granite, and the other is made up by having its mineral aggregate cemented together by an asphaltic cement; but they are both good types of pavement, but you don't think of them in the same sense.

Q What in your opinion would be the natural, obvious and manifest alternate for a bituminous concrete sheet asphalt pavement? A Which type; coarse aggregate or fine aggregate?

Q We will say a coarse aggregate.

Mr. Fitzsimmons: I object to that question as being immaterial to the issues.

A Well, there is no pavement exactly the same as coarse aggregate bituminous concrete; they might be somewhat similar, but there is nothing just the same as it; it is a type of pavement of its own.

Q Would another coarse aggregate bituminous concrete pavement be a natural alternate for a particular coarse aggregate bituminous concrete pavement? A Any one of several coarse aggregate bituminous concrete pavements might be alternates of each other.

Q Now, do you think that a block pavement is an alternate for a sheet pavement? A It is a different type of pavement.

Q Considering for a moment Warrenite Bitulithic as specified in these specifications, isn't it your opinion that the manifest, natural and simple alternate for that is another bituminous concrete sheet pavement? A No.

Q Why not? A Because they are different types of pavement; that is constructed differently, in the first place, which is the prime point of importance there, they are built entirely different; that is why one is preferable over the other.

Q What do you mean by built entirely different? A Why, coarse aggregate bituminous concrete pavement, laid in two courses; it has its binder put down first, and the top layer put down over it, laid in two courses.

Q Yes. A And each course rolled independent of the other.

Q Yes. A Warrenite pavement has its coarse aggregate laid down first, not rolled, and the surface aggregate placed upon the coarse aggregate; then the entire thing is rolled into one mass.

Q So, because of that reason, you would think that bituminous concrete sheet pavement is not a proper alternate for Warranite Bitulithic; that is your testimony? A I didn't say that. I said it is a different type of pavement.

Q I am asking you, isn't it the best, obvious and natural alternate? A No; bituminous concrete—

Q Just answer my question; I am asking you whether or not a biuminous concrete sheet pave-

ment of the type that you have just described, with two courses rolled separately—that is the expression that you used that constituted the primary difference between that and Warrenite Bitulithic—isn't that the nearest approach to Warrenite Bitulithic and the natural and obvious alternate? A No.

Q You don't think so? A No, I don't think so.

Q Well, what then is the natural and obvious alternate to Warranite Bitulithic? A Well, the nearest type of pavement laid similar to a two course bituminous concrete, with a slight variation in size of stone, and so forth, would be a sheet asphalt pavement.

Q A sheet asphalt pavement? A That is laid in two courses and also rolled separately.

Q So is the State Highway specifications mix C-ABC-2; isn't that so? A That is a two course pavement, rolled separately; that is right.

Q That would apply, too, wouldn't it? A Apply to what?

Q To your previous statement. A That is a two course concrete pavement, with the binder and surface coarses laid and rolled independently; that is right; they are sheet pavements. Every pavement is a sheet pavement; you don't lay it up and down, so that is sheet.

Q Is block pavement sheet pavement? A Block pavement is sheet pavement when it is finished, certainly; it is a sheet pavement, isn't it?

Q Well, the one is a spread pavement, isn't it, and the other is laid in blocks. A They are both spread; one spread one way and one spread another way.

Q Well, one is rolled in and the other is laid in block; isn't it? A That is just a different way of spreading them.

Q Now, Mr. Hochstader, if you say that a bituminous concrete spread sheet pavement, rolled by a steam roller, isn't the equivalent or natural alternate for Warrenite Bitulithic, because of the fact that in one case the courses are rolled separately and in the other they are rolled together, how do you justify the use of an asphalt block as an alternate? A Why, the engineer picked that as a bituminous pavement alternate.

Q But you wouldn't justify it, would you? A Why not?

Q Well, I mean, would you? A Yes, I would.

Q Why? A It is a bituminous type of pavement, constructed of a mineral aggregate, cemented together by asphaltic cement, the only variation being in the size of the particles or the mineral aggregate used.

Q You mean in the composition? A The composition; yes.

Q Isn't that true of bituminous concrete spread sheet pavement also? A Yes; but a bituminous concrete spread sheet pavement hasn't got the density that an asphalt block has, or that Warrenite has, or that a National pavement has.

Q What do you mean by density? A The density of a pavement is its weight compared to an equivalent weight of water, or its specific gravity.

Q Specific gravity? A That is the same thing.

Q Is asphalt block as durable as Warrenite Bitulithic? A Yes; in my opinion it is.

Q It doesn't require any greater thickness, does it, than Warrenite Bitulithic? A Any greater what?

Q Greater thickness of pavement for the same durability. A In my opinion, the difference there of a quarter of half an inch in the two thicknesses would not make much difference.

Q It isn't necessary, is it? A You would get a little thicker pavement and a little better composition.

Q To make them equivalent, or equal in durability? A Yes; you have about the same condition.

Q It wasn't necessary to add on another half inch; is that it? A A good block doesn't need anything added to it.

Q Is the Warrenite Bitulithic a coarse aggregate or fine aggregate, or both? A Why, the bottom course is coarser than the top course; that is, the bottom layer is made of a larger stone.

Q What about the State Highway Specifications C-ABC-2? A You have a peculiar situation there, in that the top course happens to be coarser than the bottom course. I took that up with the State Highway Department and now it is in process of correction. The specifications as printed in the manual of 1928 is wrong. I think that is being corrected at the present time.

Q They are reversed; is that it? A They made an error somewhere; they got their top course coarser than their bottom course; I don't know why that is.

Q What about that specification; that is about the same, isn't it, as the Warrenite? A No; it is coarser; much coarser.

Q Much coarser? A Yes.

Q Is Warrenite Bitulithic coarser than asphalt block? A No.

Q It is not? A I don't think it is quite as coarse.

Q You mean the top or the bottom layer? A Why, the block is all one.

Q I am not talking about the block now; I am talking with reference to the Warrenite Bitulithic. A The bottom layer would be practically similar to the bottom layer of C-ABC-2. I don't quite remember all these specifications in my head; that is my opinion.

Q How about the bottom layer of Warrenite Bitulithic; would that be the same fineness as asphalt block, or would it be coarser? A There is no bottom layer to a block.

Q But is the composition of the lower course in Warrenite Bitulithic coarser or finer than the uniform composition of asphalt block? A Why, I am afraid that Warrenite is probably a little coarser than the block; yes.

Q What do you mean by probably; don't you know? A Well, if you press the top into the bottom layer, then you have a bigger stone than you have in the block; yes.

Q So it isn't finer, as you have testified previously? A It isn't what?

Q It isn't finer than an asphalt block, as you testified previously? A What isn't finer?

Q Warrenite Bitulithic? A No; the asphalt block has a finer aggregate than Warrenite Bitulithic.

Q That is what I wanted to know; but you reversed it before? A No, I didn't; you misunderstood me. Read the answer.

Q Now, in answering the question the way you did, you said the reason why one bituminous concrete spread sheet pavement would not be an alternate is because of the fact that they haven't the same specific gravity, due to the fact that the aggregate in Warrenite Bitulithic is as fine or finer than asphalt block; now do you still persist in that testimony? A Well, now, the aggregate in the C-ABC-2 pavement that you keep mentioning here right along, for your information, has stone in it that is in size up to an inch and a half. Neither of these three types of pavement have any stones as large as that in it.

Q I am not asking you that. A Get that clear in your mind, if you are trying to do that; you can't compare them, because the stones are entirely different sizes. While there might be a slight difference between the block and the mineral aggregate in Warrenite and National, the size of the stone in C-ABC-2 is so far larger that you can't make a comparison.

Q As a matter of fact, Mr. Hochstader, as far as the composition is concerned, that doesn't make much difference at all, does it, as far as the manufacture is concerned? A As far as what?

Q As far as the manufacture of the mix is concerned, in bituminous concrete mixes? A In the general process of making, these mixes are about the same.

Q In other words, if the engineer cared to specify a mix which has as fine a mixture as asphalt block or Warrenite for that pavement he could do it; there is no patent to prevent him from doing it? A The engineer could specify whatever he cares to.

Q I am asking you if there is any patent to prevent him from doing it? A There is no patent on C-ABC-2; that is the State Highway specifications.

Q I am not asking you about C-ABC-2; I am asking whether the engineer from Kearny could put in the specifications provisions for a material which, in mixture now, is identical to Warrenite Bitulithic; is there anything to prevent him from doing that? A He could specify a mixture that was the same, but it wouldn't make the same pavement.

Q Because of the method of rolling; isn't that your answer? A The method of laying.

Q But the composition could be the same? A The density wouldn't be the same.

Q Why wouldn't it? A Owing to the method of rolling.

Q How does the method of rolling change the density of a given quantity of material? A Well, you get more pavement packed into a cubic inch under the Warrenite process than you do under the hypothetical type of pavement you refer to.

Q But that doesn't change the composition, does it? A Of course it does.

Q It makes it denser; is that it? A That is part of the composition of a pavement; that is one of the factors.

Q Do you know what Warrenite Bitulithic weighs per square yard? A The last Warrenite Bitulithic I laid weighed three—Wait a minute; what depth?

Q Two inches. A Two inches of pavement would weigh about 210 to 235 pounds, roughly.

Q Do you happen to know that the C-ABC-2 weighs 220; or don't you know? A I know it

doesn't; I have seen it weigh 190, too; I have never seen Warrenite go down that far.

Q That is, they vary; is that it? A C-ABC-2 varies very much, yes.

Q Warrenite varies, too, doesn't it? A Nowhere near as much.

Q Do you know whether the present State Highway requirements for the specific gravity of F-ABC-2 is the same as Warrenite Bitulithic requirements? A What?

Q Whether the requirements for the specific gravity— A Yes.

Q Is the same for F-ABC-2? A I know it is about the same.

Q It is about the same? A About the same.

Q So that exactly the same density can be obtained? A It can be, but generally isn't.

Q But generally isn't. Now, the minimum and maximum requirements for the F-ABC-2 is the same as Warrenite Bitulithic, isn't it? A The State Highway requirements are about the same. Pardon me for interrupting you, but of a different type, though.

Q The F-ABC-2 could be made at Kearny by any asphalt plant, couldn't it? A I assume it could, yes.

Q So that because of the requirements resulting in the same density, or resulting in the same density between F-ABC-2 and the Warrenite Bitulithic, the same durability is obtained in practical results? A Not in my opinion.

Q Now, Mr. Hochstader, your testimony wherein you state that the durability of a material depended upon its specific gravity and density, and in view of the fact that you now admitted that the State Highway Specifications last referred to, in its requirements in that re-

spect, is identical to Warrenite Bitulithic— A In density.

Q Why isn't that type of pavement identical to the Warrenite Bitulithic? A Because it hasn't the interlocking features which I enlightened you about today.

Q It hasn't the interlocking feature between the two courses laid one upon top of the other? A No; they are not laid the same way.

Q So that there is no alternative to Warrenite Bitulithic, because it hasn't that interlocking factor; is that so? A There isn't only one alternate; you have two of them right herein these specifications.

Q Both with the interlocking factor? A No; neither have those two.

Q So that even if that factor were absent, you would still say that they would be alternates; the mere fact that that factor is not present does not prevent you from saying that they are alternates? A The engineer could put them in as alternates if he wanted to; he could put in a dozen others if he wanted to.

Q So that F-ABC-2 is an alternate, isn't it? A It is an alternate, of a different type. You could put in a different bituminous concrete from F-ABC-1 or F-ABC-2 and call that an alternate if you cared to; you could run right down the line of pavements, if the engineer wanted to do that, and put them in as alternates.

Q I mean, isn't it a fact that alternate is much closer than asphalt block, because asphalt block is a block pavement and has no courses at all, and is united together in separate blocks? A Not necessarily; that is up to the engineer to decide.

Q What do you mean is up to the engineer to decide? A He can pick out, if he wants to, all three types of pavement; he can pick out any three alternates that he chooses that are equivalents.

Q Do you know that the State Highway Department engineers deliberately prepare F-ABC-2 as the nearest equivalent to Warrenite Bitulithic?

Mr. Fitzsimmons: I object to that as calling for a conclusion. How does he know?

Q Do you know? A I have seen their—

Mr. Fitzsimmons: I object to that question on the ground that the witness is not qualified to state what the State Highway engineers had in mind when they prepared these specifications.

Q Do you know? A Only by hearsay, but no definite proof. I have asked one of the State Highway engineers about two years ago that question and he declined to answer.

Q Now, a block type of pavement is not a sheet type of pavement, is it? A It produces a sheet pavement when it is laid; when it is finished.

Q So does granite block, doesn't it? A Surely; it is a sheet pavement when it is laid.

Q Now, the method of handling generally, the shipping, preparation and manufacturing of a pavement, which must be rolled and spread like Warrenite Bitulithic, is different than the method of manufacture, handling, shipping and laying of an asphalt block; isn't it? A Not different; altered.

Q Well, what is the difference between altered and different; explain it? A Why, the only difference between a block pavement and the others you mentioned is that there is a difference in the manner and locality at which the compression is applied to the pavement.

Q In other words, it is handled and rolled and compressed the same as Warrenite Bitulithic? A Read my answer, if you please. I said only the place of the application of the compression is different.

Q And what are the component parts or differences in the place of compression? A The asphalt block, in the first place, is compressed at the source of manufacture; it is compressed not with a steam roller, but with a press. Those are the differences.

Q But it is handled, it is dumped in trucks and spread the same way as Warrenite Bitulithic? A At the block plant; yes.

Q At the block plant? A Yes; the mixture is made up exactly the same way, in exactly the same type of asphalt plant. In respect to hauling it to the street, spreading it and compressing it; and it is dumped into the mills or presses where the blocks are made.

Q Then after that to get it to the street is it handled differently from the way you haul the blocks? A To the street, if you happen to be near where they are made, you haul the mixture from the asphalt plant to the street, if it happens to be in that vicinity.

Q Do you shovel blocks? A Before they are blocks you shovel them.

Q I mean after they are blocks. A After they are blocks the general procedure would be

to put them on the train and take them to the point of destination.

Q How are they handled? A Usually by hand or conveyors, depending on the plant.

Q Do you handle the hot Warrenite Bitulithic mixture by hand? A Why, you would dump that into trucks.

Q Do you handle them the way you do asphalt blocks? A We do; you dump them into trucks mechanically from the hoppers, which would be similar to the conveyor, which conveys the piles to the beds above, mechanically.

Q You testified that they are handled mostly by hand; now do you have to handle Warrenite Bitulithic mixture by hand? A On the street; yes.

Q In what way? A Why, it is dumped out of the truck and a lot of laborers together take shovels and spread it.

Q With shovels, but not by hand? A How do you operate a shovel? You don't operate it with your feet.

Q No; but do you need shovels to handle asphalt blocks? A You handle it by hand the same as you handle the shovel; you lay both by hand; in the other case you have an implement in your hands and in the other you don't.

Q So there is a difference, isn't there, in the fact that they use an implement? A They use a rake and shovel.

Q Whereas in the other case they don't use an implement? A Well, in laying them they use the squeegee iron; I don't know what the right word is for that.

Q That is another difference; there is a slight difference in the way they are laid? A With the pavement as an actually finished thing, if that is

what you are trying to get at. I don't know what your point is.

Q Now, is there any difference in the method of handling between the laying of F-ABC-2 and Warrenite Bitulithic? A Why, F-ABC-2 and Warrenite Bitulithic would be made at the plant perhaps in the same sort of way.

Q And shipped in the same sort of way? A Well, they would be brought to the street in the same sort of way, and then they would be laid differently.

Q In what respect would they be laid differently? A Why, you would spread your binder for the F-ABC-2 and roll it; and then you might that same day, or the same afternoon—

Q Roll it with what? A A steam roller or gasolene roller.

Q Would you do that with Warrenite Bitulithic? A You wouldn't do that, because you would create that compression at the source of manufacture; the compression can not be applied there by a roller.

Mr. Fitzsimmons: With Warrenite.

A Pardon me; Warrenite would be brought to the street, the bottom course would be spread and not rolled.

Q Then what would happen? A Then the top course would be brought, placed over it, over the unrolled bottom course, then the two would be rolled as one.

Q What about the second process in F-ABC-2? A That would be put on after the bottom course had been rolled, set and cooled.

Q That would then be rolled, then that second course would be applied? A Then the second

course would be spread upon the first course as rolled, and then the second course would be rolled independently.

Q So that the only difference, in fact, is that in one—the whole process from the beginning of the process of manufacture, the time that the various elements and compositions, stone, sand and asphaltic cement, whatever it is, is mixed, to the time it is a finished street, the only difference is the method of rolling, isn't it, by the steel roller; isn't that so? A The only difference is the method of rolling; which is the heart of the problem.

Q You mean that is the only difference? A It is the heart of the entire problem, the crux of the entire method of laying that pavement which makes it so wonderful.

Q That is the patent? A That is the patent; that is right.

Q But with asphalt blocks there are innumerable differences from the time it is first created up to the time it is laid in the street; isn't that so? A With the exception that the finished block is one integral unit two or two and a half inches thick, without a break between it. Warrenite is practically the same thing, whereas your F-ABC-2 or whatever you are referring to again is usually in two courses.

Q What do you mean, that there is no break in it, in an asphalt block? A The asphalt block is a block two and a half inches thick.

Q Yes. A Of uniform composition throughout, practically.

Q Yes; what about the joints; did you ever see a block loose on the street? A A block of what?

Q An asphalt block that is loose on the street. A Oh, yes; I have.

Q Well, now, how do you explain that? Isn't the difference that in one case practically thousands and tens of thousands of brick are laid in the street, which are vertical, and in the other they are parallel to the ground? A No; the asphalt block is just laid under these specifications and is in the joints with asphaltic cement.

Q Is there any sealing in laying the two courses of F-ABC-2? A Very often they put in a seal coat on it.

Q That can be done, can't it? A No; you don't seal; you can't seal an inch and a half down or an inch down by any process of seal coating the surface; there is no way of getting into it.

Q I am not talking about that. Of course not. A You can't seal the point where the binder and the wearing surface of F-ABC-2 join; there is no way of doing that.

Q These two layers of F-ABC-2 after they are rolled are integral, aren't they? A Not always.

Q They should be if they are properly laid, shouldn't they? A They should be, but there is generally a marked point where the two layers have been joined, especially if there is any time that elapsed between the time that the top and the bottom layer is put on.

Q But in applying them to the street, the purpose is to make a single pavement, isn't it, that is unified? A It is very rarely that it is laid that way. The usual procedure is for the average small plant particularly to lay the binder all day one day and then top it off the next day. That is done most of the time; or

they run ahead so many yards of binder and then put on the top coat.

Q Do you know what the usual procedure is in placing cement between the asphalt blocks? A Yes; they follow right along.

Q Do they ever break? A Why, I haven't seen a block pavement go bad that has been laid under the new process yet.

Q Did you testify that the composition of a Warrenite Bitulithic pavement is identical from top to bottom? A No.

Q Well, that indicates that there is a difference between the top and bottom in composition, doesn't it? A Yes; but it is the method of rolling that interlocks it; that is the patent that covers the manufacture of the pavement that produces a lock-tight joint between the top and the bottom; one is rolled right into the other.

Q Then your answer remains the same? A What is that?

Q The fact that the composition is different from top to bottom. A Yes; the difference in size.

Q In your opinion, what would be the percentage of voids in a binder course of F-ABC-2? A I couldn't answer that offhand.

Q You should know that. A Why, I have got reams of records on it, but I don't try to remember what the last pavement that I tested of F-ABC happened to have in percentage of voids.

Q I mean just your generalization. A I haven't the slightest idea offhand, without consulting my records.

Q Would it be about forty per cent.? A I wouldn't guess at it. We had one specimen of F-ABC-2 early in the season that ran twenty

and some odd per cent. of voids, but that twenty some odd is bigger; I am trying to remember; it was rather high.

Q That would be very high, wouldn't it? A Yes, that is high.

Q Now, if there are voids here— A That is the idea of Warrenite pavement, to do away with the voids.

Q Wouldn't there be places for the top layer of F-ABC-2 to sink in and fill those voids? A If there were voids, yes; if there weren't, it wouldn't happen.

Q Would you make a binder course that had voids if you were designing specifications for F-ABC? A It is usual to make the binder course fairly large aggregate; however, there is quite a difference of opinion as to the advisability of doing that. In Jersey City where we have been working for forty-seven years we have a binder without any voids, and there the engineers insist upon the fact that that binder is far superior to the county binder, which is an open binder; and I have had a lot of arguments pro and con with the County Engineer of Hudson County and the City Engineer of Jersey City, both of whom I represented, trying to get them together to have the same type of binder. That is a matter of opinion.

Q Do you remember a composition of a pavement containing a voidless binder? A Well, I can tell you this much offhand, that the stone passed a one inch screen; I am speaking of the type we are using now, which is practically voidless; the stone can vary in size from half, probably a little bigger than half, down to a quarter, and then a large amount, 27 or 28 per cent. of sand is added to that binder, and about eight

per cent. of asphalt, seven or eight per cent., which makes a very tight binder.

Re-direct examination by Mr. Fitzsimmons.

Q You understand that the issue involved in this case is whether or not these three types of pavements are equivalent types of pavement; do you understand that to be the issue? A I do; yes, sir.

Q There may be other equivalent types of pavement; isn't that true? A That is true.

Q That is a matter of discretion for the municipal authorities?

Mr. Schloeder: I object to that as calling for a conclusion.

A It is entirely up to the engineer designing the specifications.

Re-cross examination by Mr. Schloeder.

Q Mr. Hochstader, why do you think this statute was passed?

Mr. Fitzsimmons: I object to that. How does he know.

A I will answer that question; I don't know.

Q You don't know? A It never did any good since it has been passed.

STATE OF NEW JERSEY, }
COUNTY OF ESSEX. } *ss.*

IRA T. REDFERN, being first duly sworn according to law, on his oath deposes and says:

Direct examination by Mr. Fitzsimmons.

Q Mr. Redfern, what is your business? A I am engineer for the Village of South Orange.

Q How long have you been so engaged? A Twenty years.

Q During that time have you had charge of the paving work of that municipality? A I have.

Q You have heard me read in this case paragraph of Chapter 188, Laws of 1923, which provides in effect that where you advertise for a patented pavement, you must also advertise for a non-patented pavement of an equivalent type of construction; you heard that? A I did.

Q Are you familiar with the specifications in this case? A In part, yes.

Q Would you say that the three types of pavement advertised for, namely, National pavement, Warrenite Bitulithic and asphalt block, are equivalent types of construction? A I would.

Q Have you used these three types of pavement as alternates for street improvements in the Village of South Orange?

Mr. Schloeder: I object to that as immaterial.

A I have.

Q Have you in any case found that asphalt block was the lowest bidder? A My recollection is that in two cases that has happened.

Q Do you know the names of the streets? A One was on Turrell avenue, and the other was on Self place.

Q Considering that the issue in this case is whether or not these three types of pavement are equivalent types of construction, is it a fact that there may be other pavements which are also equivalent? A Yes.

Q Are these three types of pavement bituminous in character? A They are.

Q Do they contain practically the same ingredients? A They do.

Q Now, you have heard the definition of an equivalent type of pavement made by Mr. Haller, a witness for the prosecutors, to the effect that that means a pavement that has equal durability, longevity, riding qualities, physical appearance and ultimate cost; do you agree with that definition, either in whole or in part? A I do, in part, eliminating the question of cost.

Q Why do you eliminate the question of cost? A Because there are so many elements, in my opinion, that might go into the subject of the cost of a pavement that with other things being equal, I wouldn't consider it, as an engineer.

Q Now, if the question of cost is a factor in determining the equivalent type of construction, how can unpatented sheet asphalt be considered the equivalent of Warrenite Bitulithic and National pavement, or any other patented sheet pavement? A If the element of cost is to be taken into consideration they cannot be, in my opinion.

Q Why not? A Well, because there are certain elements that go into the case of a patented pavement, that is the first cost to begin with, the cost which the unpatented pavement would not have.

Q Under these specifications do you consider asphalt block to be as durable as Warrenite Bitulithic? A I do, as it is laid under these specifications.

Cross examination by Mr. Schloeder.

Q You said something, Mr. Redfern, about the fact that there were some lower bids on asphalt block on two streets in South Orange; how long ago was that? A One was this year.

Q This year? A Yes.

Q Do you remember whether that arose out of the unit price for the square yard of pavement, or other elements? A I don't know that; I am not in a position to answer just what it rose out of at the present time; it might have arisen out of a combination of items; it might have been due purely and simply to a question of keen competition generally; that is my opinion, although I cannot state that that is a fact; it is a question, however, of keen competition between different contractors.

Q You wouldn't say that the unit price for asphalt block was less than Warrenite Bitulithic? A I have said that in these two specified cases.

Q You mean the unit price per square yard? A Yes, sir.

Q Do you remember what the prices were? A No, I don't.

Q Could you produce them? A I think I could.

Q Are these streets laid with asphalt block? A Yes; the job is finished.

Q You think that this asphalt block is the equivalent of Warrenite Bitulithic because of

your definition of what is equivalent; isn't that so? A Not exactly; or not altogether.

Q What do you mean? A I am giving you my opinion, based on years of experience, and I have qualified the statement that it is equivalent in my opinion if laid in accordance with these specifications. Now, to be frank with you, these specifications under which this asphalt block is being laid, is rather new and it hasn't had the test of time that Warrenite Bitulithic has.

Q In what respect do they differ from prior specifications? A The block is laid today with a seal coat or a flush coat of bitumen after the blocks are laid, and that fills in the interstices between the block, where prior to that the method of laying these joints between the block were just filled in with sand broomed in.

Q Doesn't that increase the cost of it? A That is a question that I couldn't answer; I would doubt very much that it does; I think the item of furnishing the sand and brooming it into the block would be equal to the cost of the surface coat of bitumen.

Q Now, all other things being equal, asphalt block is more expensive to lay than Warrenite Bitulithic? A Generally speaking that is true, in my opinion and in my experience.

Q Do you know anything about the prices here that Patrick Maher, the successful bidder, bid, of $3.50 on asphalt block and only $2.85 for Warrenite Bitulithic? A Only what I have heard since I have been in this room.

Q That is nothing unusual in your experience, is it? A In my experience that is rather a wide variation; my experience is that the competition is closer than that; or the figures are closer.

Q These prices appeared on the same bid sheet, so that the question of competition could not have entered into it; he would be competing with himself. A Well, there are elements to be taken into consideration in arriving at an opinion on such a subject that might not be very decent to discuss; that is solely up to the individual contractor, what he desires.

Q Well now, Mr. Redfern, you heard the previous engineer testify that macadam is not, or may not be any cheaper than granite; now let me ask you, isn't it a fact that you could lay granite block, other things being equal—that granite block is about four times as expensive as ordinary macadam? A Well, I think, generally speaking, yes, everything else being equal.

STATE OF NEW JERSEY,
COUNTY OF ESSEX. } *ss.*

RALPH T. HALLER, being recalled for further examination, on his oath deposes and says:

Direct examination by Mr. Schloeder.

Q Mr. Haller, you heard the testimony of Mr. Hochstader, that Warrenite Bitulithic is more durable than any equivalent type of bituminous concrete, spread sheet asphalt, for example, such as F-ABC-mix; is that so? A In view of the fact that I know that the F-ABC-2 type of pavement has been developed and perfected to take the place of the previously patented pavement, Warrenite Bitulithic, and

my experience with it has been entirely satisfactory, I would say that there is no material difference in the laying of the two types of pavement; in other words, I as an engineer would be perfectly satisfied to have an F-ABC-2 pavement on my job as I would a Warrenite Bitulithic, insofar as riding qualities, durability, longevity and so forth are concerned.

No cross examination.

I, HARRY SCHIRMER, a Supreme Court Examiner of the State of New Jersey, do certify that the foregoing is a true and accurate transcript of the depositions in the above entitled cause, taken by and before me at the times and in the places hereinbefore mentioned; and I believe said transcript fairly and accurately states the testimony given.

HARRY SCHIRMER,
Supreme Court Examiner.

OPINION OF SUPREME COURT.

Filed May 27, 1930.

NEW JERSEY SUPREME COURT.

No. 225 October Term, 1929.

E. J. Flaherty Contracting Co., a corporation of the State of New Jersey, and Mildred A. Rohn, *Prosecutors,* *vs.* The Town of Kearny in the County of Hudson and State of New Jersey, a municipal corporation, and Patrick J. Maher, *Defendants.*	*On Certiorari.* *Opinion.*

Submitted October 3, 1929. Decided May , 1930.

Section 4, Chapter 188, P. L. 1923, in the use of the words "equivalent types of construction" means types of road building that in all the elements that enter into construction, including ingredients, composition and method of laying, are as nearly identical as may be—allowance being had for the patented feature—with the designated patented pavement.

Before Justices Trenchard, Lloyd and Case.

For Prosecutors, Nicholas S. Schloeder.

For defendants, John H. Cooper, Riker and Riker, Thomas E. Fitzsimmons on the brief.

Opinion of Supreme Court.

The opinion of the Court was delivered by Case, *J.* This writ of certiorari brings up for review the award of a contract by the Town of Kearny in the County of Hudson, for the repavement of a portion of Davis avenue. The case turns on the construction to be given Section 4 of "An Act concerning the construction, reconstruction, or resurfacing of any State highway, county road or municipal road, and the award of contracts therefor" (Chapter 188, P. L. 1923) which provides:

> "Whenever any patented, propriety pavement or paving material, or ingredients used in paving, is included in the specifications, it shall be the duty of the board or body having charge of the work not alone to specify such type of construction, but to place in the specifications one or more equivalent types of construction upon which no patent exists, or upon which there is no proprietary right or condition as an alternate type, and bids shall be asked for on the various types so specified, and the award shall be made to the lowest responsible bidder on the types of construction so placed in competition by the governing board."

The proposals called for bids on Warrenite Bitulithic pavement, admittedly a patented pavement, and, as alternates, on National pavement, also conceded to be a patented pavement, and Asphalt Block pavement, a pavement upon which no patent exists and upon which there is no proprietary right or condition. The low bid was for Warrenite Bitulithic. It was made by the defendant Patrick J. Maher, and the contract was awarded to him. The question is whether Asphalt Block may lawfully be thus used as an alternate type to Warrenite Bitulithic. To be

an alternate it must be an "equivalent type of construction." For clearer understanding the following definitions are given:—Bitumen is a mineral pitch or asphalt; likewise asphalt is mineral pitch. Bitulithic, as its origin indicates, is a kind of paving, the main body of which consists of broken stone cemented together with bitumen or asphalt.

The patents by which the so-called patented pavements are protected are not upon the ingredients but upon the processes by which the ingredients are mixed and laid. As was said by James H. Howard, a consulting engineer on roads and pavement, and a witness called by the defendants—speaking specifically of Warrenite Bitulithic—"The ingredients are crushed stone, sand, sometimes a little powdered limestone, these being the mineral ingredients, which are cemented together with asphalt cement. The construction of the pavement, however, is controlled by patents; it is not in the ingredients thereof, but in the method of putting the three portions thereof together on the street." The witness then proceeds to describe this Warrenite Bitulithic process as follows:—

"This Warrenite Bitulithic pavement, the bituminous concrete is prepared of relatively coarse crushed stone, ranging from coarse pretty close to even about one-quarter of an inch in size, mixed hot and cemented together with asphaltic cement, spread in place, and not rolled. On this is placed a finer grain asphalt concrete mixture, principally sand and bitumen, being spread by hand, and the second mixture is rolled onto and into the lower mixture; the finer surface is treated sometimes with fine sand and sometimes powdered limestone, spread on

and rolled into place. This is under the Wallace patents and—I don't know the patents now, but they are all in my office, if you want them; but I only tell you this; and it seems wise to state that while they are all bituminous pavements, the method of putting them together is the only real difference. When they are all done, it is all an asphalt concrete pavement, including the asphalt block, which is also an asphalt concrete pavement."

The same witness then described the National pavement thus:

"You understand, my answers are entirely upon the specifications in suit, and not as National pavement has been laid otherwise, or elsewhere. I will answer the question by stating that the National pavement specified in this case requires a bituminous concrete or binder layer to be spread upon the prepared foundation hot, rolled and finished to a thickness of one inch; the mixture or composition of the wearing surface also to be placed on this binder also is to be one and a half inches thick when finished. It is composed of natural mineral matter, as found in nature, heated and thoroughly mixed bitumen and cemented together by asphaltic cement. The patents connected with it are the Popkis patents. I briefly state the gist of those patents."

The witness then gives this description of Asphalt Block:

"Trap rock or other hard, suitable stone is crushed and when crushed is co-mingled from relatively coarse pretty close down to and including powdered stone. These are heated and mixed with asphalt cement and the mixture compressed into block form at the factory or works where made. The blocks are then sent

to the location where they are to be used, and in these specifications are laid by hand on a mortar bed of one half inch thickness, the mortar bed being composed of cement and sand. I have not spoken of the base, because the base or foundation of all these pavements is the same. After they are placed squarely and firmly together in a uniform surface, that surface is painted over with a hot asphalt cement, or to the common mind, it is hot tar poured upon and painted over the outer surface, which surface is called a squegee coat, and while it is hot, it is ironed into the joints between the blocks and it also covers the entire surface, making the surface continuous and waterproof."

The witness concludes his direct testimony by saying that all of these pavements are bituminous concretes, and he adds that they are such because they have a bituminous cement to hold the mineral aggregate together.

The Court will take judicial notice of the fact that immediately preceding the passage of the legislation there had been very general dissatisfaction with and wide public criticism of the action of public bodies in making awards of road contracts upon specifications calling for pavements so protected by patent or proprietary rights that open competition was impossible, with consequent uncertainly as to whether the prices, and therefore the costs to the taxpayers, were fair and reasonable. We consider that the legislation is remedial in character and subject to the rules of construction applicable to statutes of that description. It is an ancient canon of construction that the Court shall consider what the mischief was that the legislature sought to remedy as well as the remedy intended to be

provided by that body to cure the mischief. The Chief Justice, stating this rule in Conservation and Development Board *v.* Veeder, 89 N. J. L. 561, quotes with approval the language of Blackstone: "It is the business of the judges so to construe such statutes as to suppress the mischief and advance the remedy." The mischief was the absence of fair competition in the award of road contracts, and the statute was obviously passed by the legislature as a corrective. That being so, the act should be liberally construed to effect its object. Horner *v.* Webester, executor, 33 N. J. L. 386, 405.

It appears from the evidence that a specification calling for Asphalt Block as an alternate to Warrenite Bitulithic did not, under the circumstances of the case, allow fair competition in price. The reasons why this was so need not be here detailed further than to say that the differences in the respective costs of finished roadways under the two specifications were fundamental. It is not, however, the difference in final costs that controls. If the competitive opportunities were presented, as intended by the statute, the difference in price would simply be dispositive of the award, and the work would follow the low bid. But to so select the alternate specification as that a bid thereon would naturally and almost necessarily be higher than that of a selected patented pavement at once suggests that, however unsophisticated the arrangement of the specifications may have been, the object of the legislature is not being attained; and the guilelessness of the selection of the alternate pavement is seriously impugned by the testimony that at an open meeting of the Town Council the Town Engineer said that the inten-

tion was "to use Warrenite Bitulithic and that they merely put the Asphalt Block in there as an alternate to cover the law." Nor could particular fault be found even at this development if the course pursued were in fair compliance with the statute as thus illumined. There was not, in our opinion, such compliance.

The use of the word "construction" in the statute becomes the more significant when we find that it is the "construction" of a pavement that is patented. We think that the legislature in using the word "construction" did so in the knowledge that certain construction methods were the subjects of the patents that constituted the crux of the problem. We find that by the expression "equivalent types of construction" the legislature meant types of road building that in all the elements that enter into construction, including ingredients, composition and method of laying, are as nearly identical as may be—allowance being had for the patented feature —with the designated patented pavement. Having in mind that it is the patent that carries the exclusive control, the immediate suggestion is that the legislature intended by its language that the road building authorities should, to give proper and informative competition in calling for a bid on a method of construction controlled by a patent, call also for a bid on an unpatented construction of the same general type and as nearly identical as the word "equivalent" signifies.

It is, we think, quite apparent from the testimony that however Asphalt Block may resemble the other two pavements in constituent substances, it is not an equivalent type of construction. Comparing it specifically with War-

renite Bitulithic, the Asphalt Block is compressed into forms at the factory, transported in this partially finished condition to the site of the work, laid squarely and firmly by hand on a mortar bed and painted over with hot tar, whereas Warrenite Bitulithic is made at the site, spread on the roadway in layers and then rolled. The act of construction, viz. the putting together as a structure, is in the one instance totally unlike the other.

There are nonpatented pavements which do appear from the evidence to have the similarity in equivalent type of construction which the statute anticipates, as for instance a spread asphalt pavement known as F-ABC-2, which, according to the testimony of Ralph T. Haller, also a consulting engineer on pavement construction, was developed and perfected to take the place of the patented process to which we have referred. Likewise, it appears from the examination of Irving Hochstader, a consulting pavement engineer called by the defendants, that the method of "mix" known as C-ABC-2 is a non-patented asphalt spread pavement approved by the State Highway Department and used by the latter as one of its specifications. Therefore, the application of our understanding of the statute to the existing circumstances is not a *reductio ad absurdam.*

Our conclusion is that the specifications adopted by the Town of Kearny were unlawful in that they called for a patented pavement and did not include "one or more equivalent types of construction upon which no patent exists," and that the award was unlawful because based thereon.

The defendants question the propriety of the prosecution of the writ by E. J. Flaherty Contracting Co., but it may be inferred from the testimony that that corporation is a taxpayer of the municipality. At any rate no doubt is expressed on the proposition that Mildred A. Rohn, a prosecutrix, is a resident taxpayer.

It is further contended that the prosecutors are in laches and that they are estopped from prosecuting their suit by Article 20, Chapter 195, P. L. 1921, which (section 56) provides that no certiorari shall be allowed to review any ordinance for any improvement after the contract therefor shall have been awarded. But the ordinance is not under review; and the specifications, which, with the award, are now before us, were not prepared, according to the wording of the ordinance, when the ordinance was adopted. On the day following the award notice was served on the Town of Kearny of the application for the writ and the proceeding has been diligently prosecuted.

The resolution awarding the contract is set aside, with costs.

RULE FOR JUDGMENT SETTING ASIDE AWARD.

NEW JERSEY SUPREME COURT.

E. J. FLAHERTY CONTRACTING Co., a corporation of the State of New Jersey, and MILDRED A. ROHN, *Prosecutors,*	*On Certiorari.*
vs.	
THE TOWN OF KEARNY IN THE COUNTY OF HUDSON, a Municipal Corporation of the State of New Jersey, and PETER (Patrick) MAHER, *Defendants.*	*Rule for Judgment Setting Aside Award.*

This cause having been argued at the October, 1929, term of the court by Nicholas S. Schloeder, of counsel for the prosecutors, and Thomas E. Fitzsimmons, Riker & Riker, and John H. Cooper, of counsel for defendants, and finding error in the proceedings leading to the adoption of the resolution brought up for review,

It is thereupon Ordered and Adjudged that the resolution of the Town of Kearny, in the County of Hudson, adopted August 14, 1929, awarding a contract for the repavement of Davis avenue from Midland avenue southerly to the Town line in the said Town of Kearny to Patrick J. Maher, removed by the writ of certiorari in this cause, be set aside, with costs.

Entered June 2, 1930, on motion of

NICHOLAS S. SCHLOEDER,
Of Counsel for Prosecutors.

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Oct. 193

New Jersey Court of Errors and Appeals

E. J. FLAHERTY CONTRACTING CO., a corporation of the State of New Jersey, and MILDRED A. ROHN, Prosecutors-Respondents,	On Certiorari.
vs.	On Appeal from Supreme Court.
THE TOWN OF KEARNY IN THE COUNTY OF HUDSON AND STATE OF NEW JERSEY, a municipal corporation, and PATRICK J. MAHER, Defendants-Appellants.	

MEMORANDUM FOR PROSECUTORS-RESPONDENTS.

Facts.

This certiorari brings up for review the award of a contract by the Town of Kearny in the County of Hudson for the repavement of Davis Avenue from Midland Avenue southerly to the Town Line, which award was made by resolution adopted by the Town Council of Kearny, August 14th, 1929. The prosecutors are Mildred A. Rohn, a taxpayer of the Town of Kearny, and E. J. Flaherty Contracting Co., a contractor, whose plant is located in Kearny.

It appears that on July 24th, 1929, the Town Council of Kearny by resolution authorized the receipt of bids for the improvement in question. The advertisement for bidders designated Wednesday evening, August 14th, 1929, at or before 8:00 P. M. (Daylight Saving Time) as the time for the

receipt of such bids. At the meeting held on August 13th, prior to the day named, protest was made in behalf of the prosecutors to the committee of the whole meeting of the Town Council, which protest directed the Board's attention to the specifications furnished prospective bidders for the proposed improvement.

It appears that the specifications provided for two patented pavements, i. e., Warrenite Bitulithic and National Pavements, and asphalt block as alternates. The substance of the protest was that this situation presented a violation of the law, and prevented the E. J. Flaherty Contracting Company from bidding on paving material which could be manufactured in its own special plant in Kearny at a greatly reduced cost.

In reply to this protest, H. Kreiner, the Town Engineer, admitted that the specifications were closed in this respect, and that it was the intention of the Town to employ Warrenite-Bitulithic, and that asphalt block was named merely in an attempt to comply with the statute (Case, p. 47).

However, the Council on the following night ignored this protest and awarded the contract for the improvement to one Patrick J. Maher, one of the defendants in this suit (Case, p. 16).

The certiorari is addressed to this action of the Town Council.

The day following the award, notice was served on the Town of Kearny for an application for a writ of certiorari before Mr. Justice Black to be made on August 17th. At the request of the defendants the hearing on such application was adjourned to August 24th to give them an opportunity to reply to the moving affidavits of the prosecutors. On that date, after hearing, Mr. Justice Black allowed the writ.

The Supreme Court set aside the award and from this judgment, the defendants now appeal.

Introduction.

Before considering the appellant's arguments it might be well to direct attention to certain preliminary matters which may greatly reduce the labors of the court and which should lead to an affirmance of the judgment of the Supreme Court without the necessity for the court to become entangled in the plethora of technical testimony with which the case is largely concerned.

In the first place, two of the three grounds of appeal are bad. In *Burhans* v. *Paterson,* 99 N. J. L. 490, 491, this court re-affirms the oft-repeated principle as to the proper method of assigning error. Thus, it is said:

> "Prosecutors have appealed to this court and filed four grounds of appeal, all on the reasoning and holding of the Supreme Court, but not alleging that that tribunal erred in the judgment it rendered. We have repeatedly held that when the Supreme Court sits as a reviewing tribunal (as it does in certiorari cases), the only proper ground of appeal is that that court erred in the judgment it gave. State v. Verona, 93 N. J. L. 389; Baer v. Lehigh and Hudson River Railway Co., Id. 446; Lundy v. Brown & Co., Id. 469; State v. Samaha, Id. 482, 483, 488; Thompson v. East Orange, 94 Id. 106; Birtwistle v. Public Service Railway Co., Id. 407, 409; State v. Metzler, Id. 418; State v. Belkota, 95 Id. 416, 418; State v. Fisher, Id. 419; Dia. Mills Paper Co. v. Leonard Hy. Ice Co., Id. 540, 543; State v. Andrew, 96 Id. 437; Kleintert v. Hutchinson, 98 Id. 831, 835."

Furthermore, specifically, the second ground of appeal referring to *laches* is likewise bad as this is not now reviewable. This principle has been enunciated in *Atlantic City Water Works Co.* v. *Read,* 50 N. J. L. 665, 666, as follows:

> "So far as the laches of the prosecutor in applying for the writ of certiorari is concerned, it must now be regarded as settled, that the determination of the Supreme Court is final—not subject to review here on error. It was so held by this court in State v. French, 4 Zab. 736, where the Supreme Court had allowed and sustained the writ, notwithstanding the allegation of laches, and in Weart v. Jersey City, 14 Vroom 662, where that court had dismissed the writ for laches."

Thirdly, the entire argument of the appellant, which is largely a repetition of that made in the Supreme Court, is predicated fundamentally on questions of fact which are now no longer open to dispute and which have been settled by the determination of the Supreme Court. Again, this principle is succintly stated in the syllabus to *Hackensack Water Co.* v. *Public Utility Board,* 96 N. J. L. 184, wherein it is set forth as follows:

> "The Court of Errors and Appeals will not consider alleged errors of fact in a review of a judgment of the Supreme Court in a certiorari case, where there was any proof in the case to support such judgment."

Fourthly, appellant's brief otherwise displays a curious misconception as to matters reviewable on appeal, as where, for instance, he devotes several pages under his Point Three in affirming that a writ of certiorari is a discretionary writ (hornbook law indeed), but fails anywhere to suggest that its allowance in this case was an abuse of discretion, the only ground upon which this court could notice this point.

Lastly, his brief is strangely silent in respect to the cogent reasoning of the Supreme Court in interpreting the statute of 1923, which he nowhere attempts to answer specifically.

POINT ONE.

The use of asphalt block as an alternate type to the patented warrenite-bitulithic or national pavements violates Chapter 188 of the Laws of 1923, because it is not an equivalent type of construction.

The statute provides as follows:

> "1. Hereafter, when any public road, street or highway for the whole or part of which construction, reconstruction, or resurfacing is to be undertaken by the board of body in charge of such work for any municipality, county or the State, and where the work to be undertaken exceeds the cost of one thousand dollars, the specifications and their adoption and the award of the contract therefor shall be under conditions as follows * * *
>
> 4. Whenever any patented, proprietary pavement or paving material, or ingredients used in paving, is included in the specifications, it shall be the duty of the board or body having charge of the work not alone to specify such type of construction, but to place in the specifications one or more equivalent types of construction upon which no patent exists or upon which there is no proprietary right or condition as an alternate type, and bids shall be asked for on the various types so specified, and the award shall be made to the lowest responsible bidder on the types of construction so placed in competition by the governing board" (Italics mine.) (P. L. 1923, p. 495).

It will be observed that the statute requires that the alternate to be placed in competition should be an equivalent type of construction.

Tersely stated, the arguments are (1) that asphalt block is not an equivalent type of construction, mechanically to the patented pavements, which are of a bituminous concrete spread sheet type, and (2) the cost of asphalt block is greater than the patented pavements, and hence, does not furnish the competition required by the statute, and (3) by specifying the manifest legal alternate, a non-patented bituminous concrete spread sheet pavement, a great saving would have resulted to the taxpayers.

Two fundamental and important questions of fact have been settled by the determination of the Supreme Court relative to the above argument. In sustaining contention No. 1, the court found:

> "The act of construction, viz, the putting together of a structure, is in the one instance totally unlike the other" (Opinion, Supreme Court, p. 137).

In sustaining contention No. 2 the court found:

> "It appears from the evidence that a specification calling for asphalt block as an alternate to Warrenite Bitulithic did not under the circumstances of the case, allow fair competition in price" (Opinion, Supreme Court, p. 135).

At this stage of the proceedings all that is necessary to support such findings is to examine whether there are any facts at all to support them.

As to the first proposition, that the act of construction, of putting together, is entirely different between the patented pavements and asphalt block, there can be no dispute. For evidence sufficient to support this finding one need go no further than the excerpts set forth in the opinion of the court, from the defendants' own testimony. The patented pavements are spread sheet pavements, whereas

the proposed alternate, asphalt block, is a block pavement.

The facts to support the finding of the court, that the asphalt block pavement is of a higher price and does not afford fair competition is exemplified by such testimony as the following by Mr. Haller:

> "Q. What about the differences in price, other things being equal? A. Well, the block pavement would cost more money to lay on the street; or it costs more money to produce a square yard of block pavement than it does a square yard of bituminous concrete material, assuming that the same composition entered into both type pavements and the source of supply were approximately equal; due to the fact that the cost of the asphalt mixture would be a constant at both plants; and balancing against the cost of delivering the material as bituminous concrete material and laying it would be the cost of molding the bituminous concrete into moulds; taking the hardened moulds, loading them on some conveyance, taking them onto the job and unloading them and placing them; if the two plants, one producing bricks and the other producing a bituminous concrete mixture, were in exactly the same distance, perhaps, away, that the delivery cost, or the cost of delivery, would be the same, it would be slightly higher in the case of the blocks because they are handled twice; the blocks at that point would be more expensive, because added to the same process that the bituminous concrete pavement is going through must be the cost of moulding them into shape, so that they are delivered on the job at a somewhat higher price than bituminous concrete; from then on the cost of an asphalt block is again increased, due to the fact that the labor cost of laying a square yard of block pavement is higher than a square yard of hot mixed bituminous concrete pavement, where a gang of men, or a definite number of men with a definite daily payroll, might lay 2000 yards of

bituminous concrete, and it is my opinion that they probably will not lay more than five or six hundred square yards of block pavement; so that the labor cost per square yard would be higher; also there is a cost of the sand cushion which must be placed between the asphalt blocks and the base which must be charged against the square yard. The only saving that an asphalt block pavement has over a bituminous concrete pavement is that the cost of rolling, which is an item in bituminous concrete, is not an appreciable item in asphalt block pavement, but that cost is very small compared with the greater labor cost of the asphalt black pavement; so that the delivered product of an asphalt block pavement would cost considerably more per square yard of pavement or any definite unit of size than a bituminous pavement" (Case, p. 58).

Mr. Haller further says in respect to the statute:

"Q. * * * having that provision of the act in mind, isn't it possible to place in competition, under proper specifications, the three types of pavement, namely, asphalt block, National and Standard Bitulithic? A. It would be a foregone conclusion that asphalt block pavement would be the highest bid pavement of those three types, unless some reason that I at this time cannot think of would enter into it. I know of no asphalt block pavement that have been built at as low a cost during the same year and in the same locality with the labor cost constant, as Warrenite and National pavement.

Q. Won't you answer this question as I put it? Under proper specifications couldn't they be made to be equivalent in type? A. No, they couldn't, because in order to bring the cost to a constant it would be necessary to decrease the thickness of the asphalt block pavement to such a point that the saving in material would offset the greater cost of manufacture and laying the blocks and then they would not be equivalent in durability."

Again, the bids themselves amply support this finding. Thus, while the bids of the bidders based on spread sheet pavements, i. e., P. J. Maher, Standard Bitulithic Co. and Franklin Contracting Co., are respectively $56,175.; $56,550.; and $57,325.; within a few hundred dollars of each other, the bid of the Nesto Construction Co., based on asphalt block, is $67,340. The successful bidder himself, in the same proposal sheet, bid $2.85 per sq. yd. for Warrenite-Bitulithic and $3.50 for asphalt block (Case, pp. 10 and 11).

This finding of fact having been determined adversely to the appellant, the legal question involved in the interpretation of the statute becomes relatively simple. The statute expressly says that a non-patented alternate must be placed in competition. A type of construction which fundamentally and basically must be of superior cost, cannot furnish the competition required by the statute.

The interpretation placed upon the statute by the court is thoroughly consonant with common sense. The court says:

> "We find that by the expression 'equivalent types of construction' the legislature meant types of road building that in all the elements that enter into construction including ingredients, composition and method of laying, are as nearly identical as may be—allowance being had for the patented feature—with the designated patented pavement.

There should be nothing difficult about enforcing this statute. Common sense requires that in order to enforce such a statute, it would not be necessary for a court to become entangled in a vast maze of technical considerations based on hypothetical or possibly variant conditions. Any non-technical layman knows that asphalt block is an entirely different type of construction than a sheet pavement and

can plainly see why it should be more expensive and unable to furnish the competition sought by the statute.

The cases cited by the appellant, which were before the Supreme Court, have no relevancy. He fails to see that an express situation covered by an express statute is involved here.

In the case of *Warren Bros.* v. *City of New York,* the fact that Section 419 of the Greater New York Charter at that time permitted an award to a bidder other than the lowest on a three-quarter vote and that the bid of the successful bidder was not the lowest bid, is sufficient to distinguish it from the instant case.

So too, in the *Hastings* case, the following excerpt, apart from the fact that engineering problems made the exclusion of sheet asphalt advisable, clearly discloses a marked distinction:

> "The sixth bid, for asphalt block, that of Rafferty Bros., was $14,621.30, which amount as compared with the lowest bid (namely the bid of the plaintiff in action No. 1 at $18,-218.23), showed a difference of $3,360. in favor of the city. Bidding therefore, was not stifled and may result in the saving of the city of $3,360. Upon the above facts, the plaintiff taxpayers have fallen far short of establishing that, in its possible results, the action of the city has caused 'waste of, or injury to the estate, funds, or other property of the city.' "
>
> Code Civ. Procedure, Sec. 1925 (at p. 389).

The case of *Brewster* v. *Milford* (unreported) alone is relevant. However, on the face of it, the statute was complied with, unlike the present case, for both pavements were eight-inch concrete pavements, which, except for the patented feature, were exactly alike; and secondly, for aught that it ap-

pears, and this presumption must be indulged in, the successful bidder was the lowest bidder.

The opinion of the Supreme Court as to the law and facts is so comprehensive that I feel that I am unable to add anything to it. However, inasmuch as the appellant refers to it in his brief, I will repeat a dialectic which formed part of the argument before the Supreme Court for the purpose of clarity.

Proposition One.

The purpose of the Act of 1923 is not to interdict patented pavements is not to secure to the municipality in the reasonable exercise of its discretion, might not select a patented pavement as most suited to its purpose.

NOTE: Municipalities have always been permitted to exercise considerable discretion in the selection of materials, supplies, etc.

Bye v. *Atlantic City,* 73 N. J. L. 402.

Proposition Two.

The purpose of the Act in regulating the use of patented payments is not to secure to the municipality pavements which are durable and otherwise advisable from an engineering standpoint.

NOTE: It is conceded by all the engineers that such well known patented pavements as Warrenite Bitulithic or National Pavements are excellent pavements from an engineering standpoint, and hence, this was not the mischief which the statute sought to suppress.

Proposition Three.

The manifest purpose of the statute is to keep the price of patented or proprietary pavements

down, not for the benefit of competing contractors, but for the benefit of the taxpayer.

NOTE: Otherwise this statute would be useless and meaningless.

Proposition Four.

This purpose is accomplished by requiring a non-patented or non-proprietary alternate of equivalent type of construction, which, by furnishing competition, produces this result.

NOTE: Thus, the statute expressly requires that the alternate be "placed in competition". The testimony shows that $10,000. would be saved to the taxpayers by the use of non-patented bituminous concrete sheet pavements.

Proposition Five.

It is impossible to accomplish this result with a totally different type of construction which by virtue of certain inherent characteristics, which are fixed and immutable, must necessarily be of a higher price.

NOTE: A simple analogy will clarify this point. Thus on Thursday morning, August 15, 1929, the price of granulated sugar at a New York Produce Exchange, was $5.50 per hundred weight. Tablet sugar, manufactured from the same quality of sugar, was quoted at $7.65. The difference arises because tablet sugar requires at least one additional process in its manufacture, that of compressing it into tablets. Tablet sugar is therefore always more expensive than granulated sugar. That condition is fixed and immutable, due to the inherent differences in the finished product itself. It may be possible to conceive that in certain cases granulated sugar in Alaska might be more expensive than tablet sugar at a refinery or in a dozen other hypothetical situations.

However, it always remains true, that for competitive purposes, it is not an equivalent type of sugar.

Proposition Six.

Asphalt block, because of its inherent characteristics, being a specially manufactured article of a special design, and like tablet sugar requiring an additional process, that of compressing it into blocks, and requiring a handling peculiar to itself, which characteristics are fixed and immutable, must always be more expensive than bituminous concrete spread sheet pavements, disregarding hypothetical and variant conditions, and hence does not accomplish the purpose of the statute.

Proposition Seven.

The court in enforcing this statute need not go beyond these considerations, and need not inquire into the complexities arising from possible variant conditions, which might, in hypothetical cases, lessen the difference in price or even nullify it.

Proposition Eight.

On the other hand, the consideration by the court of those complexities involving variant conditions mentioned in the preceding paragraph, does not affect this controversy, because by such consideration, as the testimony adduced discloses, the unfavorableness of the comparison in price is increased anywhere in New Jersey, since asphalt block is not manufactured in New Jersey, whereas bituminous concrete spread pavements are mixed everywhere in New Jersey and indeed in Kearny itself.

NOTE: Witness, P. J. Maher's bid of Warrenite-Bitulithic at $2.85 and asphalt block for $3.50 per sq. yd.

Conclusion.

The use of asphalt blocks as an alternate for Warrenite Bitulithic and National Pavement, bituminous concrete spread sheet asphalt in New Jersey, nullifies the statute.

The manifest intent of the statute requires in the present situation a bituminous concrete spread sheet pavement as an alternative such as that identified in the State Highway Specifications as FABC 1, FABC 2, or CABC 1 or CABC 2. Indeed, it appears that the State Highway Department prepared these specifications for that express purpose (Case, pp. 113 and 128). As Mr. Haller relates:

> "Q. Mr. Haller, you heard the testimony of Mr. Hochstader, that Warrenite Bitulithic is more durable than any equivalent type of bituminous concrete, spread sheet asphalt, for example, such F-ABC-mix; is that so? A. In view of the fact that I know that the F-ABC-2 type of pavement has been developed and perfected to take the place of the previously patented pavement, Warranite Bitulithic, and my experience with it has been entirely satisfactory, I would say that there is no material difference in the laying of the two types of pavement; in other words, I as an engineer would be perfectly satisfied to have an F-ABC-2 pavement on my job as I would a Warrenite Bitulithic, insofar as riding qualities, durability, longevity and so forth are concerned."

POINT TWO.

The award seems to have been made with intent to favor bidders using warrenite-bitulithic.

The appellant says:

> "There is no proof that Mr. Kreiner, the engineer for the Town of Kearny made any such statement as charged by the counsel for the prosecutors-appellees * * *".

This, I respectfully submit, is a rather bare-faced statement to make in view of an express finding of the Supreme Court to the contrary in which the court actually quotes from the record (Opinion, p. 136, top). On the other hand, the appellant in the reference to the presence of the Mayor of Kearny, refers to matters wholly *aliunde* the record.

It becomes manifest from the testimony that asphalt block is peculiarly suited to perpetuate the vices which the statute was aimed at, and I have no hesitancy in asserting my belief that this is why it was selected as an alternate. Asphalt block itself is more or less a proprietary or controlled pavement. The machinery for manufacturing it is patented (Case, p. 30). The only company making them is the Hastings Company of Hastings, New York, within any striking distance from New Jersey (Case, p. 31). Elsewhere they are manufactured in Florida and Toledo, Ohio (Case, pp. 31 and 78). Of course, this eliminates them from any consideration. It seems to me, in spite of the efforts of the State Highway Commission in effecting the passage of this statute and effecting proper alternates for the patented pavements, if the court will pardon the phrase, the "old army game" persists.

POINT THREE.

The allowance of a writ of certiorari in this case was eminently proper.

Of course, the allowance of a writ of certiorari is discretionary, but as before pointed out, the point furnishes no basis for review. Not only was there no abuse of discretion, but this allowance was eminently proper. $10,000 would have been saved to the taxpayers by placing in competition as an alternate, a bituminous concrete spread sheet pavement such as F-ABC-2 and C-ABC-2.

POINT FOUR.

The prosecutors were not estopped from attacking the resolution under review.

This point has been decided against the appellant on three prior occasions, i. e., on the allowance of the writ, on a motion to dismiss the writ, and on the argument leading to the judgment of the Supreme Court now under review. As before pointed out, this concludes this point. *Atlantic City Water Works* v. *Read, ube supra.*

As the Supreme Court says:

> "But the ordinance is not under review; and the specifications, which, with the award, are now before us, were not prepared, according to the wording of the ordinance, when the ordinance was adopted. On the day following the award notice was served on the Town of Kearny of the application for the writ and the proceeding has been diligently prosecuted."

CONCLUSION.

The judgment of the Supreme Court should be affirmed for the reasons expressed in its opinion.

Respectfully submitted,

NICHOLAS S. SCHLOEDER,
Attorney for Prosecutors-Respondents.

New Jersey Court of Errors and Appeals

E. J. FLAHERTY CONTRACTING CO., A CORPORATION of the State of New Jersey, and MILDRED A. ROHN,
Prosecutors-Appellees,

vs.

TOWN OF KEARNY IN THE COUNTY OF HUDSON, A MUNICIPAL CORPORATION of the State of New Jersey and PATRICK J. MAHER,
Defendants-Appellants.

On Certiorari.

On Appeal from New Jersey Supreme Court.

Brief for Defendants - Appellants.

FACTS.

This action brings up for review a decision of the Supreme Court setting aside the resolution of the Town of Kearny adopted August 14, 1929 whereby a contract for the repaving of Davis Avenue from Midland Avenue southerly to the town line in said Town of Kearny to Patrick J. Maher in accordance with the provisions of an ordinance passed by the Town of Kearny on October 10, 1928 and the specifications relative thereto which were prepared by the Town Engineer.

The above ordinance provided for three alternate types of pavements, namely Warrenite Bitulithic, National Pavement, both of which are patented pavements, and asphalt block which is not a patented pavement. Bids were received on all types as a result of advertisement and the contract was awarded for the paving of Davis Avenue with Warrenite Bitu-

lithic to Patrick J. Maher who was the lowest bidder.

E. J. Flaherty Contracting Co., one of the prosecutors-appellees failed to bid on the work, the other prosecutor is a taxpayer.

This application presents one important question for the determination of this court and that is whether or not the three types of pavement above mentioned are proper alternates in accordance with the provisions of Chapter 188, P. L. 1923.

POINT I.

The use of Warrenite Bitulithic, National Pavement and asphalt block as alternates for the paving of Davis Avenue in the Town of Kearny is a proper exercise of power vested in the municipality within the meaning of Chapter 188 of the Laws of 1923.

In considering the main point at issue in this case, it is necessary for the court to construe the meaning of the phrase "equivalent types of construction" as used in paragraph 4 of the above act. Said paragraph reads as follows:

> "4. Whenever any patent, proprietary pavement or paving material, or ingredients used in paving, is included in the specifications, it shall be the duty of the board or body having charge of the work not alone to specify such type of construction, but to place in the specifications one or more equivalent types of construction upon which no patent exists, or upon which there is no proprietary right or condition as an alternate type, and bids shall

be asked for on the various types so specified, and the award shall be made to the lowest responsible bidder on the types of construction so placed in competition by the governing board."

In order to determine the meaning of not only paragraph 4 of said act but each specific requirement of the whole law which must be considered as a whole, it must first be determined what was the object of the law itself—in other words, what result the Legislature desired to produce.

Obviously in framing Chapter 188 of the Laws of 1923 the object of the Legislature was to provide a procedure under which municipalities could accomplish the following results: (A) Construct street pavements, which in each case, would be of a character appropriate for the physical conditions surrounding that particular street; (B) to obtain such result at the lowest possible cost to the community; (C) to prevent collusion between officials and contractors, which might occur under private contracts, therefore, requiring that when the estimated cost of the improvement would be more than $1000., competitive bids must be taken; (D) to provide a procedure whereby the municipality could contract for the laying of patent pavements; (E) to provide procedure which by providing competition would prevent the owner of patent or proprietary articles from charging unreasonable prices.

In order to prevent contracts being awarded on patent or proprietary pavements at unreasonably high prices paragraph 4 requires that patent pavements must be put in competition with one or more non-patent

types of pavements and also requires that "the award shall be made to the lowest responsible bidder on the types of construction so placed in competition by the governing board."

If the Legislature had stopped with the above two requirements it would not have accomplished its purpose because under such conditions it would have been possible for the governing body to have placed in apparent competition but not in actual competition an expensive type of pavement which was suitable and appropriate for the specific project and a cheap low cost type of pavement which was entirely unsuitable and inappropriate for that specific project, and, if this were done, the governing board would be forced to award the contract to the low bidder on the unsuitable type of pavement and by doing so would have effectually stifled competition and have actually damaged the community by purchasing an unsuitable article.

On account of the above, the Legislature was careful to state that, when, selecting the types of pavements on which to take bids in competition with patent or proprietary pavements, the governing board must "place in the specifications one or more equivalent types of construction upon which no patent exists or upon which there is no proprietary right or condition." This requirement means that the governing board shall take bids upon several types of pavements each of which is equivalent to each of the others for the purpose intended. In other words, irrespective of which type of pavement is actually built, the results as to utility and satisfaction to the public shall be the same.

In framing this requirement, the Legislature was careful to merely require that the "types of construction" or in other words the completed pavements shall be equivalent. They did not require that the several types shal be identical in composition or in method of construction or even similar as to ingredients or as to methods of manufacture or methods of construction. In fact, if several pavements bid upon were composed of dissimilar ingredients but combined by identical methods they would probably constitute one type and and not two different types; also if they were composed of the same ingredients, put together by different methods they might also constitute a single type such as bituminous type of pavement or hydraulic cement rigid type of pavements.

Certainly, the Legislature could not have intended to broaden the meaning of the word "equivalent" to include the question of cost of manufacture or of the price to the public, because if two pavements must be of the same cost or price to be equivalent, then this construction would lead to absurdities. For instance, the producer of a National Pavement might use identical materials and identically the same methods of construction on two different pavements located at different distances from his paving plant. The difference in length of haul alone would thus make a difference in the manufacturing cost to the producer and also a difference in price to the municipality, yet as the two pavements would be identical with each other they certainly must be equivalent to each other.

The fact that price does not enter into the matter is proven by the truthful but uninten-

tional statement of witness Beuscher as shown in the S. of C. from line 28 page 46 to line 23, page 47 in which he argued that if Mr.Flaherty had been permitted to bid upon bituminous concrete he could have saved the city about $10,000. "with an **equivalent** almost identical pavement for all practical intents and purposes."

If Flaherty's bituminous concrete pavement would have been an equivalent of the Warrenite Bitulithic and National Pavements and at the same time have saved the city $10,-000., then how can plaintiff argue that simply because contractor Maher's bid for Warrenite Bitulithic Pavement is not equivalent to the asphalt block bid of the Nestro Construction Company simply because the Warrenite Bitulithic bid totaled $11,165., less than Nestro's bid for asphalt block construction. Conversely, according to Beuscher, the Warrenite Bitulithic Pavement would have been an equivalent of Flaherty's bituminous concrete pavement even though the Warrenite Bitulithic would cost $10,000., more than Flaherty's bituminous concrete. If that is true, then certainly the mere fact that the asphalt block bid in this case cannot be proven to be **non-equivalent** to Warrenite Bitulithic simply because it cost $11,000., more than the Warrenite Bitulithic.

Another proof that when using the word "equivalent" the Legislature did not mean to require that the several types of pavement included in the specifications should all cost the same price is the obvious fact that the governing board has no means of knowing what prices will be bid for any one of the pavements selected until after the bids have been actually received. Their only means of estimating even

approximately what the different types will cost is by a study of the prices bid on said types of pavements in other cities or in their own city at some previous date. The comparison of prices bid in one city with those bid in another city for the same type of pavement will nearly always show considerable difference in prices due to difference in local conditions also such a study will show that even in any one city the difference in prices between two or more different types of pavement is by no means constant, and, while they may both stay within some general approximate range of prices, frequently they will alternate in being higher or lower than each other.

In this case, prosecutors-appellees complain that the cost of manufacture of the asphalt blocks necessarily makes a completed asphalt block pavement so much more expensive than either the Warrenite Bitulithic or National and that the inclusion of the asphalt block does not provide competition. However, the record of this case shows that in nearby cities asphalt block pavements have been bid at lower prices than Warrenite Bitulithic.

Prosecutors-appellees endeavor to show that in order to be equivalent, two types of pavement must be the same in "ultimate cost" and this brings in the cost of maintenance during the life of the pavement after the contractor's guarantee has expired. Testimony of James W. Howard shows that the asphalt block pavement is more easily and cheaply repaired than either Warrenite Bitulithic or National. The fact ought to a certain extent at least, counterbalance any excess in first cost of construction of the asphalt block.

Counsel for the prosecutors-appellees contend tht asphalt block "is not an equivalent type because (1) that asphalt block is a different type of construction than the patented pavements which are of the bituminous concrete spread sheet type." The law requires the selection of several "types of construction." In order for two pavements to belong to two types of construction they must be different, otherwise there would only be one type of construction comprising the two different pavements and the law would not be complied with.

It is interesting to note that while considerable testimony was taken in this case the only difference of opinion between the engineers who testified for the prosecutors-appellees and the engineers who testified for the defendants-appellants in defining the term "equivalent type of construction" is the question of cost. Mr. Haller for the prosecutors-appellees testified in this connection as follows: (See S. of C. page 61 line 11).

> "Q. Mr. Haller, these three types of pavements as far as the ingredients are concerned are all practically the same, aren't they?
>
> "A. Yes.
>
> "Q. The only difference is in the process of manufacture and the process of laying?
>
> "A. And the slight, although it has no material effect, difference in composition.
>
> "Q. Do you say that asphalt block is more durable and more serviceable than Warrenite or National Pavement?

"A. I would not; although may I modify that; I believe as an engineer that Warrenite Pavement is a better type of construction than National Pavement under usual conditions, because of the difficulty in securing the component parts that a National Pavement makes necessary.

"Q. A different binder?

"A. Yes, I would say that asphalt block pavements are no better than Warrenite Bitulithic Pavement.

"Q. In the laying of an asphalt block pavement on a base of a certain depth isn't it true that if you want to repave or repair any of that surface that it is a very simple matter with the asphalt blocks to do so by merely replacing the blocks?

"A. It is easier to make repairs with asphalt block pavement than it is with Warrenite Pavement.

"Q. Or any other sheet pavement?

"A. Or any other sheet pavement, it can be repaired without having the asphalt plant actually in operation nearby.

"Q. So that where a municipality talking now from your experience as an engineer advertises for an asphalt block pavement in competition with Warrenite and National would you say that it would be robbing the people in asking for bids on those types of pavement?

"A. I never like to use the expression "robbing the people" so if you don't mind I will answer that in this way: I would say that a municipality would get

as serviceable and durable pavement **except that the cost of that equivalent pavement would he higher."**

To digress for a moment, the attention of the court is particularly directed to the importance of the underlined portion of the above statement. The witness admits, perhaps unconsciously, that the three types of pavements in question are equivalent and so states in his answer. Resuming the cross-examination the next question is as follows:

"Q. What is your definition of equivalent types of pavement from an engineering standpoint?

"A. By equivalent pavement, I would mean pavements that had equal durability, longevity, riding qualities, physical appearance and ultimate cost.

"Q. Then it is a fact that as far as these three types of pavement are concerned that they would be equivalent in type in your opinion if it were not for the question of the difference in cost between the two patented pavements and asphalt block; isn't that true?

"A. That is right.

"Q. So that if the term "equivalent" includes the question of price how can non-patented sheet asphalt be considered the equivalent of Warrenite Bitulithic and National Pavements since it is claimed that the former is much cheaper; how could that be considered equivalent?

"A. **I don't know that it was considered that these three types of pavements had a material difference in cost, it is my opinion."**

It can be seen from an examination of Mr. Haller's answers to the above questions that in one instance he says that these three types of pavements in his judgment would be equivalent types of construction if it were not for the contention that ordinarily asphalt block cost more money than either Warrenite Bitulithic or National Pavement. However, the witness contradicts his own statement in the last answer quoted in which he says "I don't know that it was considered that these three pavements had a material difference in cost * * * ".

The engineers who testified for the defendants-appellants all agree with Mr. Haller's definition of the term "equivalent type of construction" eliminating the question of cost. their main reason being that the cost of any pavement is a variable and a variable cannot be considered an equivalent. In this connection recourse is had to leading dictionarians for a definition of the word "equivalent" which seems to be the key to the situation.

Webster's New International Dictionary, 1928 page 742 defines "equivalent" as follows:

> "Equal in worth or value, force, power, effect, import, and the like, alike in significance and value; of the same import or meaning." Things are **equal** which are the same especially in number, amount, magnitude, value and the like; they are **equivalent** when they amount to the same thing (particularly when set off against each other) especially in worth, force, significance, or import."

The New Century Dictionary (1927) defines the word "equivalent" as follows: a

(Late latin, aequivaleus, ppr of aequivalere, have equal power, from aequus, equal plus valere be strong, be worth.) Equal in value, measure, force, effect, significance, etc., tantamount, corresponding in position, function, etc."

Funk and Wagnalls New Standard Dictionary (1927) gives the following definition for the word equivalent: "a. 1. Equal in value, force, meaning, or the like; equal so far as concerns the matter under consideration, as, two negatives are equivalent to an affirmative."

It will be noticed that the above definitions make no mention of cost. It is our contention that in order for any pavement to be the equivalent of another pavement it is not essential that the pavements be manufactured out of the same ingredients as long as the same result is obtained. However, in this case our position is strengthened by reason of the fact that all of the witnesses on both sides admit that the three types of pavements used as alternates by the Town of Kearny are all made out of practically the same ingredients and are bituminous in character. Counsel for the prosecutors-appellees contends that asphalt block is not an equivalent type of pavement for the reason that the mixture is compressed into blocks at the place of manufacture. He says that this necessitates an additional process which adds to the cost of the product. On the other hand his witnesses admit that both National Pavement and Warrenite Bitulithic are also compressed, the only difference being that these pavements are spread on the street, raked and then compressed with rollers so that it can be seen that all three types of pavements

must be compressed and this compression only differs as to method. Counsel also contends in his brief that the only equivalent for Warrenite Bitulithic and National Pavement is another spread sheet type of pavement. If the Legislature intended such to be the case, it would not have used the word "equivalent" it would have used the word identical, which is entirely different. The word "identical" is defined by Webster as follows: "a. 1. The same; the selfsame; the very same; not different; as the identical person or thing. 2. The same in kind, quality or characteristic, exactly alike or equal, as, many were sick with the identical disease. (In matters of simple quality to be identical is to be equal and vice versa)."

It can be readily seen that the two terms are foreign to each other and that the Legislature never had such an intention because, if it did, the purpose of the act, which fundamentally was for the purpose of obtaining fair and reasonable competition, would have been defeated.

In considering the question of equivalent types of construction as referred to in the act mentioned herein it would seem that, while the object of this act is to provide a method of competitive bidding, it must be primarily intended to obtain for the community proper pavements and to provide a method whereby patented pavements may be purchased.

The use of the term "equivalent types of construction" can only mean equal durability, equal service, equal value, reasonably the same composition, providing the same general utility under heavy or light traffic as the case may

be. The question of cost cannot be an element of equivalency for the reason that the question of cost is variable and dependent upon, the judgment of the contractor bidding as to what profit he will take and also dependent upon the location and conditions surrounding the individual job. If the statute could be construed to mean that the question of cost must be considered an element, then such a competition as is outlined in the statute would be impossible. No two pavements, no matter how similar in appearance or how similar the ingredients used in each pavement may be, bear the same basic cost of manufacture. Consequently, if equivalent types of construction mean the placing of two or three or more pavements in competition with each other all of which bore the same basic cost irrespective of the price at which they were bid, it would reduce the statute to an absurdity. Further than that, there is no basis on which the cost of manufacture of any product can be actually obtained. One man might think he can manufacture it for a cheaper price than another. Consequently he would be lower than the other man. If the same contractor were to manufacture three or four different kinds of pavement, even if the same general ingredients were used, the different proportioning and different method of handling and the varying amount of labor required on the work would necessarily produce a different cost result. In other words, the contractor with an asphalt plant manufacturing Warrenite Bitulithic would have a different basic cost than he would have if he manufactured National Pavement or asphalt block, although all of these pavements are composed of mineral aggregate and bituminous concrete, yet each one of these pavements require

a different grading of material and a different method of manufacturing and laying. Manifestly this would result in an advantage on the part of one pavement over another, and, if the statute means that pavements must not only be equivalent in durability, wearing surface, smoothness, etc., but also in price, it is plain that a writ of certiorari would at any time lie against any group of pavements which might be put in competition.

In this connection the court's attention is directed to the testimony of Mr. Redfern, one of the witnesses for the defendants-appellants, who has been for more than twenty years engineer for the Village of South Orange. (See S. of C. pgs. 124-125).

"Q. You have heard me read in this case pragraph 4 of Chapter 188, Laws of 1923, which provides in effect that where you advertise for a patented pavement, you must also advertise for a non-patented pavement of an equivalent type of construction; you heard that? A. I did.

"Q. Are you familiar with the specifications in this case? A. In part, yes.

"Q. Would you say that the three types of pavement advertised for, namely, National pavement, Warrenite Bitulithic and asphalt block, are equivalent types of construction? A. I would.

"Q. Have you used these three types of pavement as alternates for street improvements in the Village of South Orange?

"A. I have.

"Q. Have you in any case found that

asphalt block was the lowest bidder? A My recollection is that in two cases that has happened.

"Q. Do you know the names of the streets? A. One was on Turrell Avenue and the other was on Self Place."

On cross examination (See S. of C. page 126) Mr. Redfern was asked this question:

"Q. You said something, Mr. Redfern, about the fact that there was some lower bids on asphalt block on two streets in South Orange; how long ago was that? A. One was this year.

"Q. This year? A. Yes."

This proves conclusively that the question of price is a variable one and that the three types of pavements bear relatively similar prices. The above testimony is uncontroverted and in our opinion is very important.

It is apparent that the statute does not mean this because in Section 5 it states "so far as the engineering conditions will permit surrounding the work the base to be used under the various types of pavement shall be of the same general character, and, so far as the engineering conditions will permit of the same thickness and width, irrespective of the thickness of the surface pavement. In this particular the judgment of the governing body shall be final."

The statute recognizes the difference in engineering practice. It recognizes the requirment of a difference in thickness of the surface pavement. It is fair to suppose that the drafters of the statute appreciated that difference in base and difference in thickness of

surface made necessary by engineering requirements would naturally produce a different basic cost and therefore a different price. Appreciating this fact they placed the judgment in this connection definitely in the hands of the governing body as to what constructions to specify.

In Section 6 of said act it goes on to require that in case of pavements of a bituminous character the same general type of bituminous cement shall be used and further adds that there may be "variations in the proper fluxing and blending of cements of a bituminous character for distinctive types of pavements, etc.", recognizing the fact that there cannot be in any two or more types of pavement an identity either in thickness, bituminous cement or base. The object of the statute is apparent to put in competitive pavements of the same general character, constructed of the same general materials with the variations which naturally occur in the basic manufacture and laying of such pavements. There is no intimation in the statute that there should be an identity of cost or price or that the cost or price be nearly equal, as such a provision would manifestly be ridiculous and impossible of compliance. Pavements made of similar material bear relatively comparable prices.

Much has been made by the engineers for the prosecutors-appellees of the fact that asphalt block is differently manufactured and differently laid than the other two pavements at issue. The process of manufacture of asphalt block and the process of the manufacture of the other two types of pavement are not essentially different. The bituminous mixture of all three pavements is mixed in the same

manner and then may be compressed by either large or small pressers. It is then shipped from the central mixing plant to the work and is laid by hand after which is applied a seal coat.

In the case of Warrenite Bitulithic and National Pavement the bituminous mixture is manufactured at a mixing plant loaded on trucks and delivered hot on the work, is there raked by expert rakers and a fine surfacing mixture also manufactured and mixed at the plant applied on the surface of the mass and then is compressed on the street so that in the process of manufacturing these two types of pavements the same identical things are done except in a different order and the same materials are used with only slight variations in grading and handling.

While it is our contention that the question of the manner of manufacture and laying has no bearing on the question of the construction to be placed upon the term "equivalent types of construction", if it were so construed, the above proves that the same process is gone through with in connection with each pavement only in a different order and in a different manner. We also contend that equivalent types of construction must be determined by a result and not by method.

Counsel for the prosecutors-appellees in his examination of his witness refers continually to bituminous concrete and sheet asphalt which he claims are used by the State Highway Commission under specifications known as "'FABC-2". No bids were asked for on these types of pavements and it is, therefore, our contention that there can be no compara-

bility of price between those types of pavements and those under consideration in this case. "FABC-2" might or might not bear a higher price than any or all of the three types of pavements under consideration. In other words that question is not relevant to the question involved in this case.

The testimony shows that there might be a great number of different types of bituminous pavements laid hot or cold which some engineers might regard as equivalent types of construction, whereas other engineers may take the position that the same are not equivalent types of construction. It is our view that the question in this case is limited as to whether or not the three types of pavements under consideration are equivalent types of construction within the meaning of Chapter 188 P. L. 1923 and in the absence of any testimony showing fraud or gross abuse of discretion the decision rests with the governing body of the municipality.

In the brief submitted by counsel for the prosecutors-appellees mention is made of the fact that Warrenite Bitulithic cost more than certain other types of pavement on account of a royalty. There is no evidence to indicate that a royalty has or has not been charged in this case and there is no testimony indicating that the price at which Warrenite Bitulithic was bid is not a fair and reasonable price; nor is there any testimony to indicate that the bids placed on asphalt block are either high or low. They were the bids submitted on the judgment of the various bidders and asphalt block might be purchased at a higher or lower price than they decided to bid at.

It is interesting to note in this case that the successful bidder, Patrick J. Maher, submitted a lower bid for Warrenite Bitulithic Pavement than the Standard Bitulithic Company, the owner of the patent. This we contend shows conclusively that the question of cost cannot possibly be considered in arriving at a decision as to whether or not any particular pavement is an equivalent type of construction to another pavement.

In the dialectic submitted by counsel for the prosecutors-appellees in his brief he states in proposition one that the statute is not intended to bar the use of patent pavements. We agree with this statement, as there cannot be any doubt concerning it.

Under proposition two he tries to make the point that the statute does not intend merely to produce durable pavements. It would seem strange if a statute governing the letting of contracts should be designed for any other purpose. Certainly no statute would be set up which would make it a duty of the governing board of any municipality to consider anything but a durable pavement and the whole object of statutes regulating the construction of pavements and the letting of contracts must be the elimination of fraud and the production of durable and proper pavements.

Under proposition three he states that the purpose of the statute is to reduce the cost of patented pavements. The only mention of "cost" made in the whole act is the last part of Section 4 which says "the award shall be made to the lowest responsible bidder on the types of construction so placed in competition by the governing board." The object of this

clause would seem simply to be to prevent the closing of specifications to one type of construction which was controlled by a patent or proprietary right. It certainly cannot be construed to mean that the competition of patented pavements must be with pavements that bore a lower price than the patented pavement, as this would again reduce the act to an absurdity and would make it utterly impossible for the owner of a patent product to market such product.

If pavements of the same general type, manufactured of the same general materials are put in competition, it is perfectly plain that each one of these pavements will be bid at a different price as no two pavements are identical. If the board asking for bids has, therefore, complied with the statute and the award naturally goes to the lowest responsible bidder irrespective of type no other possible method of letting contracts could be developed, that would give a patented pavement a fair opportunity to compete. For instance, should the court lay down a rule that all pavements placed in competition with each other should bear the same price, it is plain that no competition could then exist.

Mr. Flaherty, one of the prosecutors-appellees, in his testimony claims that he could have saved the municipality $10,000., if bituminous concrete had been specified. If his statement is correct, and there is no evidence to bear it out as he refused to submit a bid which would indicate what the price of that type of pavement might be in Kearny, then the contention on which he asks this writ would fall because manifestly he would be putting in competition with Warrenite Bitulithic and Na-

tional Pavement a pavement which bore an admittedly lower price than either these two pavements, and, if price is an element, in comparability it must be an element in comparability "down" as well as "up". It is apparent that the prosecutors-appellees cannot take both sides of the question.

This case is one of first impression in this state. We are unable to find any decision of our courts directly in point on the issue involved since the passage of the Act of 1923. We have, however, located some earlier decisions of our courts which we believe might be helpful in aiding the court to reach a proper decision.

In the case of BYE ET AL v. ATLANTIC CITY, 73 N. J. L. 402, the court said:

> "This is an application for a writ of certiorari to review the action of the City Council of the City of Atlantic City, in awarding a paving contract for the paving of Atlantic Avenue with Bitulithic pavement.
>
> "Several reasons are urged for allowing the writ in this case, the first being that the paving material contracted for in this case is a patented article; but this is not an objection, as was held by the Court of Errors in Bonnell v. Newark, 28 Vr. 422. To the same effect in Ryan v. Paterson, 37 Vr. 553. The selection of the Bitulithic material for paving in this case appears to have been made by the City Council after the most thorough investigation and full conference with property owners, public bodies and citizens generally. The Council determined, in the honest exercise of the discretion ves-

ted in it, to pave with this material and to ask for bids upon it alone. All materials to be used were specified and prices at which they could be obtained to any bidder, fixed by the patentee.

"A City Council has the right to contract for the use of such special or patented pavement as it may, in the exercise of an honest discretion, find to be the most suitable for the work contemplated.

"The suggestion of the prosecutors-appellees is that at the price fixed for the Bitulithic material, when taken in connection with the cost of the foundation and other work, others were unable to bid in competition with the successful bidder, if they were to reap any profit upon the contract. **This does not appeal to us as a forceful argument. It may be that the successful bidder in this case has bid at a low price, and little profit, in order to demonstrate the character and durability of his product.**

The underlined portion of the above decision seems to us to be dispositive of the question of cost which has been raised in this case. The above decision is further buttressed by one handed down by Chief Justice Gummere for the Supreme Court in the case of CADMUS v. TOWN OF BLOOMFIELD, 1912, in which the court said:

"I have no doubt that a municipality, like an individual, can invite competitive bidding upon alternate schemes. I do not think there is anything in the law, certainly, there is nothing in common sense, which would put a municipal corporation at a disadvantage, when you compare it with an individual and compel it to deter-

mine in advance just exactly what scheme of improvement with relation to construction it will adopt, before knowing whether that it is to the advantage of the municipality or not. And so I think the writ ought not to go on the ground that there was no competition provided for by the municipality. Nor do I think that the municipality is prevented from awarding a bid invited to be made in competition with others because the invitation is only accepted by one person; for, if that is so, then no public improvement could be carried into effect, unless there was some way of compelling more than one bidder to submit a bid. It seems to me illogical to say that if they cannot do it the first time, and perhaps not the second, but the third, or fourth, or fifth time of failure is equivalent to success, and that after having advertised a certain number of times in each case, and only obtained one bidder, that they must award it, I suppose, to the man who made the last bid, although as a matter of fact, his bid may be higher than some of the earlier ones. That, I think, cannot be so. The municipality is bound to do the best it can to get competition, but, if it does not get it, it is not prohibited from acceping the bid of the single bidder.

"The only other question that has been discussed, that I recall, is the power of the municipality, after having resolved to lay a pavement of macadam, with an asphalt binder, to accept a bid on this patented pavement, that is, a bid to lay Bitulithic * * * in the present situation I see nothing illegal in the action of the municipal authorities, and decline to allow a writ."

A case which seems to be directly in point is the case of WARREN BROTHERS v. STATE OF NEW YORK, 190 N. Y. 225. In this case the controversy involved the construction of Section 1554 of the Greater New York charter which reads as follows:

> "Sec. 1554. Except for repairs no patented pavement shall be laid and no patented articles shall be advertised for, contracted for or purchased, except under such circumstances that there can be a fair and reasonable opportunity for competition, the conditions to secure which shall be prescribed by the board of estimate and apportionment."

The proceedings arose under an advertisement calling for bids to lay a smooth and noiseless pavement upon West Seventy-second Street between Central Park West and Riverside Park. Bids were called for on asphalt block, asphalt and Bitulithic.

After reviewing the previous litigation the court said:

> "It is clear that the legislature contemplated in framing the section that patented pavements might be laid in the city of New York under circumstances where there was a fair and reasonable opportunity for competition by other bidders. It is equally clear that the legislature could not have intended that the same specifications as to materials to be used in constructing the pavement should be alike in the case of each bidder. This is rendered obvious as pointed out by the court below in its dissenting opinion, that the specifications in a patent deal with the component parts of the article to be produced, many of which are compounded

under the protection of the patent, so that to base the competition required by section 1554 on similar specifications as to the materials to be used in constructing the pavement, is to substantially hold that patented pavements cannot be laid in the city of New York. The problem that confronted the board of estimate and apportionment was to authorize specifications that would enable the proprietors of patent pavements, producing a smooth and noiseless surface, to bid for the laying of the same.

"It appears by the facts submitted in the controversy that the park board of the city of New York presented to the boards of estimate and apportionment a form of contract and specifications, the terms of which had been settled by the corporation counsel as an act of preliminary specification to the bid or proposal and thereupon the board of estimate and apportionment adopted the resolution which has been already quoted at length in our review of the previous litigations. The material portion of this action of the board of estimate and apportionment is contained in the three methods of bidding which were provided as follows: 'The bidder may, at his option, offer to lay the roadway pavement in one or other of the following three methods separately described and designed herein, as indicated Method A— Pavement of asphalt blocks three inches in thickness with a base of Portland cement concrete and mortar three inches in thickness — Method B. — Pavement of sheet asphalt two inches in thickness with a bituminous concrete binder, one inch, and a Portland cement concrete base three inches in thickness. — Method C—

The Warren patent Bitulithic pavement two inches in thickness with a base of bituminous concrete four inches in thickness.' The resolution further states in substance that the board of estimate and apportionment were of opinion that the conditions set forth in the form of contract and specifications will secure a fair and reasonable opportunity for competition between pavements known as the Warren Brothers Bituminous Macadam Waterproof pavement, a patented pavement, and other noiseless pavements. It is to be observed that each of the three methods result in a pavement six inches in thickness.

"It is further agreed that Methods A, B and C were well-known forms of smooth noiseless pavements more closely resembling each other (although different in composition) than any other three forms of roadway pavement, and all were in general use although no Bitulithic pavement had been laid in the city of New York.

"We are of opinion that the scheme devised by the board of estimate and apportionment permitting the owners of patented and unpatented pavements to join in bidding for contracts to lay the same under Section 1554 of the charter is, under all circumstances, feasible, workable and affords a fair and reasonable opportunity for competition under said section. It would seem that if this result cannot be accomplished by the methods suggested that it would be quite impossible to frame a form of specifications and contract that would carry out the letter and spirit of the section under construction. It appears from the description under the three methods named that while

each results in a pavement of equal thickness, the component parts differ in each case. The opportunity is afforded to each proprietor of advising the city of New York at what price per square yard he is willing to lay his pavement.

"This dictates of public policy under the circumstances here presented, would seem to require that the owners of patented and unpatented pavements should bid on equal terms. It may well be in this age of invention and progress that the wit of man may devise, if it has not already, smooth and noiseless pavement that is cheaper and more enduring than any now in use. If this proves to be the fact, there is no reason why the inventor and the city should not profit by this situation."

This appears to us to be a very important decision because if the contention of the prosecutors-appellees in this case is sustained, it will be absolutely impossible in the future for any municipality of this state to take advantage of any new development or improvement in the art of making street pavements if such new pavements were covered by patents. It is unreasonable to suppose that the Legislature in restricting the use of patented pavements or other patented articles could have intended to so limit the action of the governing body of any municipality so as to prevent it from taking advantage of new and improved methods or devices if they can be used or acquired for a compensation which would make them profitable and economical in comparison with other methods or appliances which are not patented.

The case of the HASTINGS PAVEMENT COMPANY v. GEORGE CROM-

WELL AND THE CITY OF NEW YORK, 124 N. Y. Suppl. 388 is a very important one because the court had before it the same contention which the prosecutors raise in this case regarding the elimination of another sheet type of pavement. In that case bids were called for on Bitulithic and asphalt blocks for paving Fingerboard Road. The plaintiff urged that the omission of sheet asphalt as one of the pavements to be bid on invalidated the whole proceedings. In deciding this case the court said:

> "In the intelligent exercise of their powers, the President and the local board of the Borough of Richmond decided that sheet asphalt was not a suitable pavement for the Fingerboard Road, the affidavit of Oxholm, the engineer of the Borough of Richmond, thus explains why sheet asphalt was unsuitable: 'Deponent further says that along the street where it is intended to lay the pavement called for in the proposed contract which the plaintiff seeks to restrain the laying of, the laying of sheet asphalt would be impractical for the reason that the grade of the street is so steep and the fact that sheet asphalt becomes very smooth on the surface, and after a short time presents a slippery condition. After the asphalt becomes smooth and the surface presents the slippery condition, it is almost impossible for horses to travel upon said asphalt without falling, and for this reason it was deemed unwise to lay sheet asphalt upon the street in question.' President Cromwell likewise shows the reason for the decision reached by himself and by the local board. In his affidavit he says: 'Deponent further says that because of the grade of the street and

its condition it was unwise to advertise for bids for sheet asphalt pavement as that is not a suitable pavement to lay in street where the gradient is at all heavy as in the case of Fingerboard Road. The block asphalt and Bitulithic pavements are, in the judgment of deponent and his engineers, suitable pavements to be laid on such streets, and are more nearly similar to each other than to sheet asphalt or any other well known form of pavement. The papers submitted on behalf of the city show further that both the president and the engineer, Oxholm, made a careful examination in various localities where Bitulithic pavement had been laid, and had there discovered that such pavement had proved itself to be satisfactory and durable. What was required on the Fingerboard Road, was not a smooth, noiseless, slippery pavement like sheet asphalt, but pavement so corrugated or otherwise roughened as to aid horses and vehicles in ascending and descending the steep grades which they would encounter. Under such conditions neither the president, the local board nor the Board of Estimate and Apportionment was called upon to permit bidding for smooth, noiseless, sheet asphalt pavement.'

"Paragraph XI of the complaint in action No. 1 alleges that 'Bitulithic pavement is not a well-known form of smooth, noiseless pavement.' The city makes no pretense to the contrary; nor does the plaintiff satisfy the Court that asphalt block pavement may not properly enter into competition with Bitulithic pavement. The crevices between the blocks may offer to horses the same resistance as rough Bitulithic pavment; whereas,

smooth sheet asphalt would wholly fail of any such result."

These decisions show clearly that, even under more stringent restrictions than are contained in our own statute, asphalt block has been used as an alternate for Warrenite Bitulithic Pavement.

In the case of GEO. M. BREWSTER & SON INC. v. BOROUGH OF NEW MILFORD and CHISHOLM-WEISGERBER INC., a case in this state which is unreported, the following facts appear. The governing body of the Borough of New Milford passed an ordinance for the paving of Graphic Boulevard and the advertisement and specifications asked for bids on two alternate types of pavements—first, an eight-inch single concrete pavement, which is unpatented, and second, an eight-inch single reinforced concrete pavement with a removal top in accordance with the sheet concrete method or a similar method. The removal top process is patented. Bids were received and it appeared that the prosecutor was the low bidder on the first alternate while the defendant Chisholm-Weisgerber Inc., was the low bidder on the patented process. The governing body of New Milford passed a resolution awarding the contract to the Chisholm-Weisgerber Inc., whereupon the prosecutor made application to the Supreme Court to set aside said resolution on the ground among others that the action of said governing body was contrary to the provisions of Chapter 188 P. L. 1923, which is the same law under consideration in this case. Chief Justice Gummere refused the writ on the ground that the governing body had the right to choose the type of pavement best suited for

the purpose intended and that it had not abused its discretionary power.

The above case is somewhat similar to the one at issue. It seems to bear out our contention that the Legislature, when it enacted Chapter 188 P. L. 1923, actually intended that where a patented type of pavement was specified a non-patented type equivalent in value should also be specified in order to insure fair competition and to prevent the patentee from charging an exorbitant royalty for the patented product. It is our view that the Legislature never intended to interfere with the discretionary power of the governing body of a municipality to determine after the bids were received what type of pavement is best suited to the needs of the municipality and whether or not the difference in price, if any, between the patented and non-patented pavement warrants the governing body's selection of the higher price alternate.

It is, therefore, submitted that the action of the Town of Kearny in using Warrenite Bitulithic, National Pavement and Asphalt Block as alternates in its ordinance for the improvement of Davis Avenue in said Town of Kearny and the awarding of the contract therefore to Patrick J. Maher, the lowest bidder, is a proper exercise of the authority vested in the governing body of said municipality by Chapter 188 P. L. 1923 and that the three types of pavements so used are equivalent types of construction within the meaning of said statute.

POINT II.

The award of the contract in this case was not made with intent to favor bidders using

Warrenite Bitulithic nor was said award in violation of the provisions of Chapter 152 of the Laws of 1917 and Section 33 of the Crimes Act.

The above two points raised by counsel for the prosecutors-appellees in his brief will be treated as one.

There is not a scintilla of evidence in this case that any favoritism was shown to any bidder or to any type of pavement. There is no proof that Mr. Kreiner, the engineer for the Town of Kearny, made any such statement as charged by counsel for the prosecutors-appellees and even, if it was proved that such a statement were made, it would not bind the Town of Kearny as the engineer had absolutely no authority to make this statement. If counsel for the prosecutors-appellees were really serious about this charge of favoritism and bad faith he was at liberty to subpoena all of the members of the governing body of the Town of Kearny as well as the engineer. As a matter of fact, at the first hearing for the purpose of taking testimony in this case, which was held on September 5, 1929 at the office of counsel for the prosecutors-appellees, the Mayor of the Town of Kearny was present, and, if counsel for the prosecutor-appellees desired to question him on any matters affecting the issues involved in this case, he was at liberty to do so.

The contention of opposing counsel that the bids were invalidated, because the same were not opened at the exact time stated in the advertisement, is disposed of, in our opinion, in the case of CRITCHFIELD v. MAYOR AND ALDERMEN OF JERSEY CITY ET AL,

decided in this court on March 5, 1926 and recorded in 132 Atl. 321. In Paragraph 1 of the syllabus the court held "that meeting was called, and bids for paving tendered and received ten minutes after time set for meeting, held not to invalidate award." In the case at issue it appears that the bids were opened at about eight twenty P. M. instead of eight P. M.

POINT III.

A writ of certiorari is a discretionary writ and should be sparingly exercised in matters of public concern.

This rule of law is elementary. The Court is familiar with the many decisions regarding this point, but we think it might be enlightening to set forth a few decisions which we believe particularly bear on the point at issue.

In the case of KRAFT v. BOARD OF EDUCATION, 51 Atl. 483, the Court held as follows:

> "When municipal corporations are acting within the power and discretion vested in them by the Legislature, the courts cannot interfere unless fraud is shown or the power of discretion is being manifestly abused to the injury or oppression of the citizen."

In the case of RYAN v. MAYOR, ETC. OF CITY OF PATERSON, 49 Atl. 587 on page 588, the court held:

> "In awarding city contracts, where there are no arbitrary statutory regulations, a city council has a large measure of discretion. In reviewing such action the courts will only inquire into the good

faith and honesty of its exercise. If it appears that the action of the city authorities was taken in an honest belief that to award the contract as they did was for the best interests of the public, it will not be disturbed, even though the court, on a review of the same facts, may think that another conclusion would have been justified. The law places the obligation upon the municipal authorities and not upon the court; and where there are facts which show their action to be consistent with an honest judgment, the court should not interfere."

In the case of BROWN ET AL v. ATLANTIC CITY ET AL, 136 Atl. 608, the court said:

"Taxpayer's application for rule to show cause to review city's award of building contract for clerical error in bid and nonuse of alternative specifications was disallowed for laches, where almost 50 days elapsed from publication of bid to award, and notice of application was 15 days later after successful bidder had incurred heavy obligations on faith of contract.

"The writ of certiorari is discretionary and may be refused when it appears that public interest would suffer, or private injustice be done."

In the case of NINTH STREET PIER CO. v. OCEAN CITY, 140 Atl. 447, the court said:

"Writ of certiorari is discretionary and should be denied in case it would affect a great public work of necessity to a large number of persons."

In the case of NELSON v. TOWN OF KEARNY ET AL, 132 Atl. 299, the court said:

> "Where allowance of writ of certiorari may suspend for considerable time prosecution of a great public work of prime necessity to a large number of persons, discretion lodged in Supreme Court in allowance of prerogative writ should be sparingly exercised."

In the case of JERSEY CENTRAL POWER & LIGHT CO. v. BOROUGH OF SPRING LAKE ET AL. 140 Atl. 677, the court said:

> "Writ of certiorari is discretionary. Proceedings to review municipal actions by certiorari are not personal action and prosecutor may not insist on personal right on sharp grounds."

In addition to the reasons set forth in the above decisions, it is our contention that the writ should not be permitted in this case on account of the circumstances surrounding it. It appears that the Flaherty Co. refused to bid on the work. Therefore, it has no standing in this court.

In the case of CRITCHFIELD v. MAYOR AND ALDERMEN OF JERSEY CITY ET AL, 132 Atl. 321, it was held that a successful bidder who was not entitled to the contract could not successfully contest the award of said contract even though there was a technical defect in connection with said award. See also JERSEY CENTRAL POWER & LIGHT CO. v. BOROUGH OF SPRING LAKE ET AL, 140 Atl. 677 and SIMMONS v. MAYOR AND COUNCIL OF

THE BOROUGH OF WENONAH, 143 Atl. 73. In those cases the prosecutor actually bid on the job while in this case the Flaherty Co. refused to bid. Realizing this situation counsel for the Flaherty Co., persuaded the other prosecutor-appellee Mildred A. Rohn, a taxpayer to lend her name to this litigation. It seems rather singular that Mrs. Rohn was not called as a witness in this case. It also appears rather singular that no other property owner affected by this proposed improvement has appeared to make any protest. It seems apparent that this whole case is merely a strike suit and is brought by the Flaherty Co., because the governing body of the Town of Kearny refused to place in competition as one of the alternates the bituminous concrete type of pavement so that the Flaherty Co., would have the advantage over all the other bidders by reason of the fact that his plant for making such type of pavement happens to be located in the Town of Kearny. This fact further strengthens our argument that the question of price should not be considered in determining whether or not the three types of pavement under consideration in this case are equivalent types, because it is plainly evident that even, if bituminous concrete had been mentioned as one of the alternates, the Flaherty Co., on account of the location of its plant would have a great advantage over any other bidder who desired to bid on that particular type of pavement.

The Flaherty Co., evidently takes the position that it would be perfectly proper to use any type of pavement as an alternate in this case, provided the particular type of pavement could be made by the Flaherty Co. Further

than that, it appears to us that this action is brought merely to embarrass the governing body of the Town of Kearny and to delay the completion of the improvement of Davis Avenue which is a main artery of traffic in said Town of Kearny.

It is therefore respectfully submitted that this court should not use its discretionary power in this case.

POINT IV.

The prosecutors are estopped from attacking the resolution in question.

The ordinance providing for the paving of Davis Avenue with either National Pavement, Standard Bitulithic or Asphalt Block was passed by the Town Council of the Town of Kearny on final reading on October 10, 1928. Said ordinance provided for the appropriation of the sum of Seventy Thousand Dollars on account of the cost thereof. Said ordinance was duly advertised as required by statute.

Article 20, Chapter 195 Laws of 1921, Section 56 provides as follows:

> "No certiorari, injunction or other writ or process shall be allowed or granted to review or set aside any ordinance for any improvement after the contract therefor shall have been awarded."

After the passage of said ordinance nothing was done by the prosecutors-appellees to test its validity. The town officials then proceeded to take the preliminary steps necessary to put this improvement into effect. Arrangements were made for the financing of the work. Trenches were opened along said street for the purpose of making connection, which trenches

are now open and will have to remain open until this matter is determined. As Davis Avenue is a main artery of traffic in the Town of Kearny, considerable inconvenience will be caused to the citizens of that town.

The prosecutors-appellees in this proceeding are attacking the resolution awarding the contract for the work provided in the ordinance mentioned above. This is an attempt to evade the statute which prohibits an attack on the ordinance after a contract is awarded and would appear to come within the rule laid down by the Supreme Court in the case of COOPER ET AL v. TOWN OF BELLEVILLE, 118 Atl. 332.

It is our contention that in selecting the alternate pavements for competition the governing body of the Town of Kearny performed all of the conditions set forth in Chapter 188 P. L .1923 particularly Section 5, which reads as follows:

> "In selecting such alternate pavements for competition with each other it shall be the duty of the board or public body in charge of the work to require that specifications are so drawn that the competition is in every way fair and reasonable, and, so far as the engineering conditions will permit surrounding the work, the base to be used under the various types of pavement shall be of the same general character, and, so far as the engineering conditions will permit, of the same thickness and width, irrespective of the thickness of the surface pavement. In this particular the judgment of the governing body shall be final."

The whole case of the prosecutors-appel-

lees is predicated upon the fact that asphalt block may under ordinary circumstances cost more money than either Warrenite Bitulithic or National Pavement. Eliminating the question of cost all of their witnesses admit that the three types are equivalent. As previously stated, one of the prosecutors-appellees, E. J. Flaherty Contracting Co., did not bid on the work. Mildred A. Rohn had notice of the passage of the ordinance and that said ordinance provided for the three types of pavement now under consideration. She had ample opportunity to review said ordinance as provided by law.

It is our contention that the ordinance must be the basis of any attack. In other words, the specifications must be drawn according to the terms of said ordinance and the awarding of the contract is merely a step in the proceeding.

CONCLUSION.

It is, therefore, respectfully submitted that the defendant-appellant, the Town of Kearny, complied in every way with the provisions of Chapter 188 P. L. 1923 and that the decision of the Supreme Court setting aside the resolution under consideration be reversed with costs.

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