The Inquiries Received From a Host

of Curious Readers.

MORE ABOUT THE CURVE PROBLEM. A Protest Against the Alleged Inattention

of the Police. NECESSITY FOR A NEW GRETNA GREEN

The Curve Problem Again.

To the Editor of The Dispatch: That the curve problem is a theme highly interesting to engineers and mechanics is very true. We cannot see, however, that "Locomotive Engineer" has thrown any light on the subject. We are more in harmony with your Saturday's correspondent. A curve, we presume, to be a portion of a circle, as commonly understood in railroad lore. And this must be the definition as understood by "Locomotive Engineer." Hence he uses the term, "rounding a curve." Now then, if the outer circle of a curve is no longer than the inner circle of the same curve, then the same length of rails will encircle the outer curve that will be sufficient for the inner curve. Suppose we test this on a small scale. Take, for instance, a wagon wheel, whose felloes are 3 inches deep and the wheel 6 feet in diameter, and we wish to encircle both the outer and inner dimensions with an iron band. We discover the inner diameter is only 5 feet 6 inches because of the 6 inches deducted for the depth of the felloes. It seems pretty clear to us, that if the same length of raits will encircle the outside curve of a rail-road that will be sufficient for the inside curve, that the same length of iron band that will suffice for a 5 feet 6 inches diameter will be equally sufficient for the outer or 6 feet diam-eter. And yet we find that figures do not bear eigr. And yet we find that figures do not bear this out, inasurach as the circumference of a diameter of 6 feet is 18 feet 10% inches, while the circumference of a diameter of 5 feet 6 inches is only 17 feet 3% inches, and we can see no way by which we can entircle a distance of 18 feet 10% inches by a band that will only be sufficient to reach a distance of 17 feet 10% inches.

"Locumotive Engineer" may ask us how we account for the fact that both wheels having been securely "keyed" on the same axle, the outer wheel keeps nace with the inner wheel, when we have tried to show that the outer wheel travelethe greater distance. Note that we do not say faster. We can see but one soluwe do not say faster. We can see but one solu-tion of the problem. In rounding a curve the flange of the inner wheel presses securely to the inner side of the inner rail, and drags, or causes the face of the outer wheel to slip or on the face of the outer rail. We suggest onable one, but we do it is not true, we would be ple BEN CATLEY. PITTSBURG, October 14.

A Document for the Police To the Editor of The Dispatch :

In the interest of the public safety, I beg through your columns to call the attention of the police authorities to the following facts: While crossing Fourth avenue, on Smithfield street, this evening a wagon, with two men upon it, coming down Fourth avenue at full re- nearly ran us down. I raised my hand to tra- nearly tan us down. I raised my hand to warm the driver to slack his speed, to which he paid as attention, but ran right into us. The shafts of his wagon knocked a basket out of my hand and scattered the contents through the street, I stopped his horse and called for the police. I held onto the horse nearly as far as Wood street, still no policeman responded to my call. One man jumped from the wagon and freed the asses from my grasp, while the others drove off at a rapid note. There was no name or se from my grasp, while the others drove at a rapid puce. There was no name or aber upon the wagon by which I could alfy it. I then went to the police station, Mainond street. Not to disturb the court a sirring, I catled a policeman outside and him the circumstances, saying I would go a him and identify the wagon and the men, this not even pay the slightest attention to it I said. After telling him I did not know parties, he, in a drawling tone, asked me no they were," but as I could not tell him he red to his onerous duties of lounging in the ce court.

day, to drive the agh our streets at a pace that in direct violation of the city ordinances; streets, appeals to the police for redress, he is confronted by a policeman actually too indo lent to listen to what he has to complain of. Is his as it should be? PLAIN TALKER. PITTSBURG, October 11, 1890.

Still Another Explanation. To the Editor of The Dispatch:

None of your correspondents have yet pre-cisely described that "curve problem," but, while not a railroader, I think I can. There are more lineal feet in the outside than in the uside rail, and as each wheel on one side of a train is made tast to an anxle which turns with another brilliant programme. He will be a wines on the opposite side, it is impossible for the outside wheel to describe a greater number the outside wheel to describe a greater number of revolutions than the inside wheel; yet, in rounding a curve, the former must travel a greater distance than the latter. This is accomplished by constructing the rim of each wheels in such a manner that the inside of the rim is of a greater circumference than the outside; and as the wheels have considerable "play" between the rails, on entering a curve they shale slockways toward the outside rail. Thus the outer wheel is rounding on its inner and larger edge and the inner wheel on its curer or smaller edge. Thus the one wheel is emailed to travel a greater distance than the other and without describing a greater number of revolutions. fuanklin, Pa., October 14, 1890.

No Naturalization Papers Needed. To the Editor of The Dispatch:

Please answer, through your columns the following, to settle an argument: My parents mere native-born citizens of the United States. They roved to Canada, where I was born. When I was 7 years of age they removed to the United States and remained. Father never be-came a British subject as far as declaring alle-giance. Do I have to take out naturalization papers in order to become a citizen and vote

MCKEESPORT, October 8, 1890.

A New Gretna Green Needed. To the Editor of The Dispatch: Please inform a reader of your paper what is the nearest city or town to Pittsburg where a young lady may be married at the age of 17

without parents' consent.
A CONSTANT READER. [We know of no convenient place since New Jersey adopted a marriage license law. You can be married in Ohio as soon as you are 18

Great Britain is an Island.

To the Editor of The Dispatch: Will you please inform us through the colmans of The Disparen why you call that part of Europe separated from Great Britain "The Continent." Is not Great Britain a part of the continent of Europe? If so, why is it that travelers always refer, when they leave Great Britain, as traveling on "The Continent."

J. B. P., T. F. S.

PITTSBURG, October 13, 1839.

More Light on the Curves

To the Editor of The Dispatch: In regard to the "curve problem" in answer to H. T. A., I would say he is wonderfully off. Of course there are more linear feet in outside rail, but in regard to inside wheels being thrown

back and sliding he is mistaken. Will inform him how it is done if so desired and would like to hear from him. S. H. H., Box 81. UNIONTOWN, Pa., October 12.

Wants to Make Aluminum. To the Editor of Tue Dispatch:

plant to produce from 25 to 100 pounds per day or week, where there is plenty of clay and gas near be had for almost nothing? AN OLD READER. The Author of a Quotation Desired. To the Editor of The Dispatch: Please tell me the author of this: "Let Athens have Aristophanes, but even all Greece States have Aristophanes, but even all Greece shall not keep Homer. We give Calderon to Spare, but every nation owns Cervantes. Dante belongs to Italy and Milton to Eurland, but Ehakespeare belongs to man." EDWIN. Pritishung, October 15, 1890.

The Young Man Can Vote This Time. To the Editor of the Dispatch:

To decide a wager please answer the follow-

ing questions: The coming election being on LOOKING FOR LIGHT. the 4th of November can a man attaining the age of 21 years the 5th of November, 1880, vote at this election. READER. PITTSBURG, October 15, 1890.

> A Chance for Stranger. To the Editor of The Dispatch:

If: Stranger," who wants a situation as children's maid, will send her address to The Disparch office she may find what she wants, Pittsburg, October 15, 1890. EAST END. First Successful Cable Laid in 1866.

To the Editor of The Dispatch: In what year was the first Atlantic cable laid? Please answer in next issue of THE DISPATCH, and oblige Constant Reader,
Pittsburg, October 16, 1890.

The Hennepin Canal.

To the Editor of the Dispatch. Please inform a reader the termini of the Henneplu canal. J. R. C. [It is proposed to connect the Chicago river with the Mississippi.]

THE DISPATCH to-morrow morning will be an immense newspaper for the masses. It will hold twenty 8-column pages. Larger, better and more widely read than any other newspaper in the State.

LATE NEWS IN BRIEF.

-England is strengthening her fleet at Zan--Street car and omnibus drivers and cigarmakers of Havana have struck.

-Private Frank O'Neill, U. S. A., died from hydrophobia at Fort McPherson, Ga., Thurs--Farmers at La Crosse, Ind., are losing their hay crop on account of a great swamp fire

-Tom Field and Tom King, convicts, escaped from the penitentiary at Stillwater, Minu., yesterday morning.

—A vein rich in gold and silver was struck in the Sheridan tunnel, Colorado, Thursday, bringing \$15,000,000 in sight. —The British ship Lizzie C. Troop, Captain Fownes, has been wrecked at Loo-Choo, Part of the crew was saved.

-Mr. Gladstone, in a letter to the Jewish Chronicle, expresses his horror at the alleged Hebrew persecution in Russia. —S. E. R. Vogelsong Town Marshal of Fal-mouth, Ky., was shot and killed at his own door by an unknown assassin Thursday night.

-While playing at West Superior, Wis. Thursday night, Nat Goodwin received a telegram announcing the fatal injury of his wife, -First Lieutenant G. M. Turner, U. S. A., at Fort Clarke, has been arrested, charging him with embezzling \$600 belonging to his regimental band.

—Cuban planters held a meeting Thursday to consider the tariff question. They decided to petition, among other things, for reciprocity with America.

-It is expected that the Swiss Federal Assembly will be convened to consider the Ticino troubles, the Federal Council having failed to effect a settlement. —Champion, the labor leader at Sydney, Australia, has cabled to London that money sent from Englands will not now prevent the failure of the strike,

—A Chicago negro who refused to pay his car fare yesterday drew a razor and danger-ously wounded Tom Donovan, a passenger, who undertook to subdue him. The negro

-The ships Thomas, of New York, and Mc-Culion, of Baltimere, arrived at San Francisco Thursday, with 11 cases of scurvy on board. The men had not tasted vegetables for 154 days, and their meat was putrid.

-There is doubt if the reward of \$10,000, offered by the State and Government for the capture and delivery of Rube Burrows to an officer, will be paid. The outlaw was killed be-fore he was delivered to the proper officer.

—During a colored revival meeting at Sumter, 8. C., Sunday, Primus Jones expressed donbts of the miraculous power of the pastor, Rev. A. H. Durant, to kill and restore to life. The preacher, assisted by a prominent member, tried the experiment by killing the skeptic, in order the experiment by killing the skeptic, in order to convince him, but failed in the resurrection part of the test. The two murderers are in jail.

—At Chicago, Thursday, Nicholas Lennot, member of the Democratic County Committee, was arrested, charged with having induced John Murray and John Callaban to commit perjury in order to take out their naturaliza-tion papers. He was released on bail, and as serts that he is innocent. Other prosecutions for fraudulent naturalization are in progress -On Wednesday night, at Walterboro, S. C. line court.

This wagons are permitted every hour of the family sat near by. Suddenly there was a gorging sound, and Miss Crosby tottered in direct violation of the city ordinances; toward them, her threat cut from ear to ear.

ANOTHER BRILLIANT PROGRAMME

Prepared for the Twenty-Third Free Organ Recital This Afternoon.

For the twenty-third free organ recital at Carnegie Hall this afternoon at 3 o'clock, Mr. Wales, the city organist, has prepared assisted to-day by Miss Kate E. Courtney and Miss Estelle Tyson, of Erie, the latter lady a sweet soprano. The programme is

1. Overture—"Bronze Horse"......Auber
2. 5 a. Pour to:! Mazurka-Melodie...W. Lege
1 b. La Belle Espagnole, Bolero Bril-

Miss Katle E. Courtney.

6. \{ \(\alpha \) \) Minuetto. George Calkin \\
 \{ \alpha \) Gavotte (Pinno Sulte, op. 119) Schloeser \(\text{7} \) Vocal—"In Old Madrid". Trotere \(\text{8} \) \{ \alpha \) Postludium in C... George Whiting \(\text{8} \) \{ \alpha \) Gavotte, "Mignon". Ambroise Thomas \(\text{Miss Kate E. Courtney.} \)

9. Vocal—"Love's Golden Dream". Lindsay Lennox

10. Land meiner Traume Walzer...Otto Heyer 11. Bourree Moderne en la Mineur....B. Tours

TO ARREST RECKLESS DRIVERS. They Must Stop When Ordered or Pay the

Consequences. The police department has inaugurated warfare against drivers of vehicles who disregard the orders of officers stationed at street crossings to prevent pedestrians from being run down. The officers have been given orders to arrest all drivers who persist

n driving through crowds of people at the different crossings.

The first arrest under the new rule was made yesterday when Officer Young took into custody Bernard Digelman, driver of a Southside butcher wagon, at the corner of Fifth avenue and Smithfield street. When the officer ordered the man to stop, the latter rejused to do so and drove through the crowd. It will cost him something this manying for his corlespess. morning for his carlessness.

THE PEOPLE'S STORE, FIFTH AVENUE.

Largest and Finest Store in the City. Cheviot, chevron and Scotch worsted reeters, just opened, at \$4 50, \$5, \$6, \$7,

\$8, \$9 and \$10, up, in blue, black and tan. New and nobby goods, and the best value New and nobby governous buy.

CAMPBELL & DICK.

Gentleman, a Big Lot of New Neckwear at 25 and 50 Cts. Teck scarfs and four-in-hand styles, new

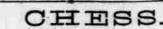
dark colorings-these are extra value-in our men's furnishing department. Open till 9 o'clock to-night. JOS. HORNE & Co., 609-621 Penn ave.

LACE CURTAINS-New lines in Nottingham, Tambour and Irish points now offer-ing. Special values from \$2 50 to \$10 per HUGUS & HACKE.

Ladies' Woolen Hosiery, 18c, 25c, 30, 35c. Misses' and children's wool hose 18c to 50c. Best values at Rosenbaum & Co.'s. Towns

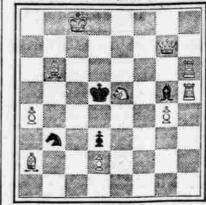
EXCELLENT beer is made by the Iron City Brewing Co.; also fine ale and choice

Are You Coming to the Exposition? Don't miss Hendricks & Co.'s great reaction in photographs. 68 Federal street,

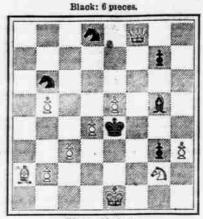


All communications should be addressed Chess Editor, P. O. Box 463. The Pittsburg Chess Club meets at the Pittsburg Library, Penu avenue. The Allegheny Chess Club meets at Dr. Miller's Hall, North avenue, every Monday evening.

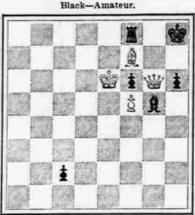
PROBLEM NO. 5. BY H. J. C. ANDREWS. Black: 4 pieces.



White: 10 pieces. White mates in two moves. PROBLEM NO. 6. BY KOHTZ AND KOCKELHORN.

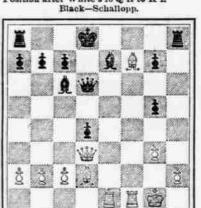


White: 10 pieces. White mates in three moves. END GAME NO. 8. PROM NUOVA RIVISTA.



White-B. Lasker. White to play and win.

The following endings occurred at the late Position after White's 16 Q R to K L



White-Taubenhaus, The game proceeded: 16 x x, R x P; 17 R B 5, R x B; 18 Q x R, Q x P ch; 19 K B 1, Q R 6 ch; 20 K K 2, Q Kt 5 ch; 21 K B 1, Q x R ch; and

Position after Black's 16 x x x. P to Q. R 4:



White-Mueller. The game proceeded: 17 Kt x Kt, B P x Kt; 18 Kt Q 2, B x P ch; 19 K x B, Q R 5 ch; 20 K Kt 1, Q x P ch; 21 K R 1, R B 3; and White resigns,

III-FOUR KNIGHTSIGAME. The following game, played at the Manches-ter Congress, was awarded the brilliancy prize of £5 offered by Mr. E. N. Frankenstein.

White. Black. GUNSTON. 1. P to K 4 2. Kt to K B 3 8. Kt to Q B 8 4. P to Q R 8 5. B to Kt 5 P to K 4
Kt to K B 8
Kt to Q B 3
P to K K 18
Q to K 2
Kt to Q 1
P to B 3
B to K 1 2
Carries to KR8 Kt to Kt 3 QR to K1 Kt to Q4 PxB PxP BxKt Q to Kt2 PxP Q to Kt 3 Q to R 4 ch Q to R 7 ch QxQ QxPch QtoKt5ch KtoR1 PxKt K to Kt 1 K to R 1 P to B 5

NOTES. (a) Position after White's 24 Kt K 2



A blunder. The only reply being RxR; 23 xxx, Q B i; Z P x B, Q x P ch; Z K Kt l, Kt

B 6 ch; 29 R x Kt, P x R; 30 Q R 2 P B 7 ch; 31 Q x P, Q x B; 32 R K 8, and wins.

—The Field.

R x R is much better, yet doubtless inspiration would have carried the day as it generally does. One continuation is 26 R x R, Q R 4; 27 P x B, Q x P ch; 28 K Kt 1, Q x B, and Black has only to recover the exchange to win.

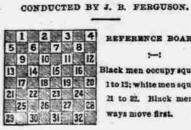
—Baltimore News.

SOLUTIONS. The solutions of problems and end games will be published three weeks after the diagrammed positions appear, of noteworthy positions on the last Saturday of each month, beginning with the last Saturday of November. This arrangement will give all solvers ample time.

CORRESPONDENCE.

O. A. Brownson, Iowa, and D. M. Martinez, Philadelphia. Many thanks for your very kind nd complimentary letters. THE PITTSBURG DISPATCH NOW publishes hess column, and, judging from the initial mber, it will be a credit to the rapidly grow-chess literature in America.—St. Louis CHESS NEWS The Detroit Free Press published its first these column loyears ago. As a fitting com-nemoration of this event in its history, it has

memoration of this event in its history, it has decided to have a solving contest, open to the world. The problems for the contest and the prizes are published in the issue of October 16. Solutions from American players should be mailed not later than November 18. All chess players are most cordially invited to compete, THE GAME OF DRAUGHTS,

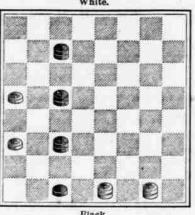


REFERENCE BOARD. Black men occupy squares 1 to 13; white men squares 21 to 22. Black men always move first.

Checker Headquarters-Home Hotel, Duquesn way, between Eighth and Ninth streets.

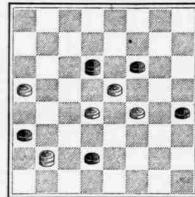
TO CORRESPONDENTS. Positions, Problems, Games, and Checker News will at all times be welcome. All communications to be addressed Penn avenue, East End, Pitts-

> PROBLEM NO. L. BY JAMES WYLIE. Champion of the World. White.



White to play and Black to win. PROBLEM NO. 2.

BY J. B. FERGUSON. White.



Black, Black to move and draw.

Game No. 1, Old Fourteenth, played between Mr. R. W. Patterson and Mr. Huff at the Home Hotel. PATTERSON'S MOVE.

A This loses according to the A. D. P. B At this stage 11-15 loses by 30-26, 15-24, 22-18, 13-22, 18-2. White wins.
C The A. D. P. goes 32-28 at this stage. 32-28 | 19-16 | 16-11 | 17-14 | 29-22 | 7-3 | 15-24 | 12-19 | 7-16 | 18-25 | 15-19 | 19-24 | 28-19 | 23-16 | 20-11 | 14-7 | 11-7 | 26-23 | 8-11 | 11-15 | 14-18 | 2 | 3-10 | 10-15 | White wins 1-6 | 11-15 | 15-22 | 1 | 7-16 | 20-11 | 20-23 | 22-18 | 16-11 | White wins

VARIATION TWO. B. Woolbouse, upsets the white win by going 1-6, and draws.

D Alas! Whites have now no chance to draw. GAME NO. 2-"WILL O' THE WISP." The following two games were played be-ween Messrs, J. Davidson and A. Larnach, of

(1)

GAME THREE-FIFE.

71. 30		Chicago OHNSON		E,	
1-15 3-19 1-14 2-17 1-9 1-28 1-28 1-20 1-24 1-19	13-22 25-9 6-13 29-25 8-11 25-18 11-16 20-11 7-23 18-14	10-17 21-14 13-17 27-18 17-22 25-21 12-16 18-15 4-8 21-17	2-6 31-27 16-20 32-28 8-11 15-8 3-12 17-13 12-16 14-9	6-10 9-6 10-15 6-2 16-19 13-9 15-18 9-16 (a) 1-10 30-26	22-5 2- 31-2 7-) 24-2 16-1 Martin wins.

(a) A beautiful shot.—A. J. Dunlap, Turf. Field and Farm. CHECKER GOSSIP. Mr. James Wylie, champion of the world, de-feated Robert Mar, of Australia, in their match, by the score of five wins to two, all the rest

Mr. C. H. Freeman, who lately defeated C. F. Mr. C. H. Freeman, who lately defeated C. F. Barker, ex-champion of America, by the score of two wins to one, the rest drawn, visited Springfield, Mass. His score was 35 wins, one lost and ten drawn.

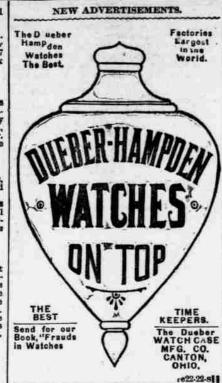
Interest in checkers is manifesting itself as the evenings are getting cooler. The cosy and well-heated rooms at the Home Hotel are taken advantage of by a great many players, Strangers visiting the city will find a warm welcome.

A match of 28 games for the championship of the city is spoken of between T. Reynolds and John H. Jones.

CROUP, whooping cough and bronchitis im-mediately relieved by Shiloh's Care. Sold by Jos. Fleming & Son, 412 Market st. Misses' long garments, from \$3 50 to

BLANKETS AT \$5 00 per pair; the greatest value ever shown. Comfortables from \$1 50 each up. Hugus & Hacke. TTSSU

LADIES' jackets, all-wool diagonals, \$3.



OFFICIAL-PITTSBURG. TIEWERS REPORT-

On the damages by grading Atwood street, from Fifth avenue to Boquet street. To the Select and Common Councils of the city of Pittsburg:
The undersigned, Viewers of Street Improvements in the city of Pittsburg, appointed by the Court of Common Pleas of Allegheny county and authorized by a petition passed on the 27th day of January, A. D. 1890, a copy of which is hereto attached, to appraise the damages sustained by grading of Atwood street, from Fifth avenue to Boquet street, in the city of Pittsburg, and make an assessment therefor under the provisions of and in accordance with an act of Assembly of the Commonwealth of Pennsylvania entitled, "An act authorizing and directing Councils of cities of the second class to provide for the improvement of streets, lanes, alleys and public highof the second class to provide for the improvement of streets, lanes, alleys and public highways, sewers and sidewalks, requiring plans of streets, providing for the appointment of a Board of Viewers of Street Improvements, prescribing their duties, granting appeals to Councils and court, providing for the assessment and collection of damages and benefits, authorizing the use of private property and providing for filing liens and regulating proceedings thereon, and prohibiting the use of public streets without authority of Councils," approved the 14th day of June, A. D. 1887; respectfully report:

ectfully report: That having been first duly sworn and quali-That having been first duly sworn and qualified according to law, they proceeded in the manner and according to the directions of said act, to discharge the duties of their appointment; and having given the notices required by said act, they viewed the premises and heard all the allegations and evidence of the several parties claiming damages, and after full consideration thereof find that no owner of property has sustained any damage by reason of said improvement; that, after ascertaining the whole amount of said costs, they made an assessment of the same upon the properties benefited by said improvement, and caused a plan to be made and prepared a statement, as required by said act, and having given to the owner of each lot ten days' notice of the time owner of each lot ten days' notice of the time and place of meeting, they met on the 30th day of September, A. D. 1890, at the office of the Board of Viewers, in the city of Pittsburg, heard all complaints and evidence, and after full consideration thereof, present the follow ing report, showing the amount each property

is entitled to pay as the proper prop tion of said cost. EXPENSES. Printing Viewers' report......
Making plan and serving notices.....
Viewers' time.....

ASSESSED. Atwood, east side, from Fifth avenue
to Boquet street—
Pittsburg Traction Co., 184, 214 feet... 5
Thes. Mellon, 30, 60 feet.
H. Colwes, 45, 90 feet.
L. J. Wagner, Beirs, 30 feet.
Margt. Crosby, heirs, 40 feet.
Edwin Bindley, 40 feet.
Louisa Wolf, 50 feet.
George Seibold, 100 feet.
G. Thompson, 25 feet.
R. Thompson, 25 feet.
G. C. Hartman and J. W. Hay, 63 feet
Janes McKnight, 50 feet.
James McKnight, 50 feet.
M. Klinesmith, 100 feet.
Annie E. Evans, 81,67 feet.
George W. Dilworth, 18,33 feet
Elizabeth Higgins, 50 feet.
Catherine McCluskey, 100 feet.
Mary M. Eberle, 40 feet.
Mary M. Eberle, 40 feet.
A. J. Edwards, 44,87 feet.
Fourth Avenue Baptist Church, 62, 75 feet.
Leach Nutrall, 60,70 feet. Atwood, east side, from Fifth avenue

Fourth Avenue Baptist Church, 62, 73
feet...

Joseph Nuttall, 69, 70 feet...

Joseph Loughrey, 91, 85.18 feet.

W. A. McClurg, 80 feet
Robert Ferguson, 94, 96 feet.

Louis Schack, 82, 109 feet.

West side—
George Seibold, 63, 127 feet.

J. Nuttall, 61, 122 feet.

W. D. Wood, 132 feet.

Alex. Waddell, 22 feet.

Valeria C. McVay, 23 feet.

Valeria C. McVay, 23 feet.

Carrie Boyce, 22 feet.

Alex. Waddell, 22 feet.
Valeria C. McVay, 22 feet.
Valeria C. McVay, 22 feet.
J. M. Flick, 22 feet.
George Knorr, 22 feet.
W. J. McGee, 22 feet.
Mrs. M. A. Philips, 22 feet.
Mrs. C. Hawiser, 22 feet.
J. J. Weldin, 22 feet.
Ann Cartwright, 43.54 feet.
L. A. Kaiser, 22 feet.
L. A. Kaiser, 22 feet.
Joseph Gehring, 22 feet.
Joseph Gehring, 22 feet.
P. F. Held, 22 feet.
P. F. Held, 22 feet.
George Fritz, 44 feet.
W. M. Dunn, 22 feet.
H. W. Armstrong, 23.50 feet,
Jane D. Penrose, 20,50 feet,
Philip Wolf, 44 feet.
E. Schlegel, 22 feet.
Mrs. L. M. Ballenfelder, 22 feet.
H. Held, 44 feet.
G. A. Grabe, 44 feet.
S. Ingold, 22 feet
Janes Dawson, 22 feet
J. T. Ewens, 22 feet
John McCance, 22 feet
John McCance, 22 feet
U. A. McClurg, 110 feet
Owen McMaion, 22 feet
John G. Stephenson, 42 feet
Lydia Messner, 50 feet
E. E. Davis, 24 feet
B. Oseph Loughrey, 115,33 feet B, Call, 24 feet Joseph Loughrey, 115,33 feet Robert Anderson, 53,33 feet Louis Cella, 83.11 feet Flinn & Lowry, 82, 150,33 feet

Respectfully submitted,
EDWARD JAY ALLEN,
DANIEL WENKE,
TIMOTHY O'LEARY, JR.,
TIMOTHY O'LEARY, JR.,
DANIEL WENKE,
TIMOTHY O'LEARY, JR.,

VIEWERS REPORT-

FITSBURG. September 30. 1890.

FITSBURG. September 40. 1890.

FITSBURG. September 40. 1890.

FITSBURG. September 40. 1890.

FITSBURG. September 40. 1890.

FITSBURG. September 40.

FITSBURG. September 40. 1890.

FITBBURG. September 40. 1890.

FITBBURG. September 40. 1890.

FITBBU

ASSESSED.

Stanton avenue, north side, from Highland to Heberton—
Gus C. Mail, 110, 180 feet.

B. H. Peabody, 61, 56,25 feet.

C. G. Elwood, 65, 69,25 feet.

J. B. Armstrong, 44, 40 feet.
Thos. M. Ulam, 44, 40 feet.
Mrs. Julia Mobler, 27, 25 feet.
Mrs. H. E. Duffy, 55, 50 feet.
W. Thrumston, 60, 55 feet.
J. McNeil, 27, 25 feet.
J. B. Armstrong, 66, 50 feet.
Susanna M. Wallace, 55, 50 feet.
C. J. and H. F. Pelgan, 121, 110 feet.
Michael McCornuck, 233, 250 feet.
Stanton avenue, south side—
Stanton avenue, south side— ASSESSED. Michael McCormick, 243, 230 afect.
Stanton avonue, south side—
Charles Lockhart, 140, 200 feet.
J. R. Negley heirs, 50.84 feet.
Mary A. Rutter, 40 feet.
E. H. Stutmever, 80 feet.
H. M. Hartzell, 80 feet.
John A. Peebles, 145, 149.50 feet.
Mary Crocker, 117.74 feet.
Mrs. Louisa Hamilton, 110, 105.85 feet.
Mary P. Dilworth, 247, 251 feet. \$18,776 00

OFFICIAL-PITTSBURG.

Respectfully submitted, EDWARD JAY ALLEN, DANIEL WENKE, TIMOTHY O'LEARY, Jr., PITTSBURG, October 9, 1890. Triewers' Report-On the grading, paving and curbing of Denniston avenue, from Fifth avenue to Penn ave-

Viewers.

To the Select and Common Councils of the city of Pittsburg:
The undersigned Viewers of Street Improve-The undersigned Viewars of Street Improvements in the city of Pittsburg, appointed by the Court of Common Pleas of Allegheny county and authorized by an ordinance passed on the 26th day of November, A. D. 1888, a copy of which is hereto attached, to make an assessment of the cost and expense of grading, paving and curbing of Denniston avenue, from Fifth avenue to Penn avenue, in said city, upon the property benefited thereby under the provisions of and in accordance with an act of Assembly of the Commonwealth of Penusylvania, entitled "An act authorizing and directing Councils of cities of the second class to provide for the improvement of streets, lanes. provide for the improvement of streets, lanes lievs and public highways, sewers and side-

E. M. Yard, 20 feet
M. Yard, 20 feet
Mrs. M. E. Johnston heirs, 40 feet
Hill Burgwin, 20 feet
Emma A. McKee, 98, 89,21 feet
W. A. Caldwell, 29, 26 feet
Emma A. McKee, 34, 210,10 feet
South side—
S. Arnholtz, 28, 24 feet S. Arnholiz, 26, 24 feet.
B. Remark, 26, 25 feet.
Barthol Erb, 52, 48 feet.
W. Finch, Sr., 26, 24 feet.
C. H. Grote, 21, 24 feet.
Wm. Finch, Sr., 79, 72 feet.
T. L. and J. H. Ortman, 26, 24 feet.
Wright's alley, north side—
Ed Williams, 16, 20 feet.
David Lewis, 44, 40 feet.
C. Gerhard, 22, 20 feet.
John Moyer, 22, 20 feet.
Philip Shaffer, 22, 20 feet.
C. W. Essile, 16, 20 feet.
Wm. Hope, 16, 20 feet.
G. Bruckman, 16, 20 feet.
Marine National Bank, 22, 20 feet.
Central Bank, 22, 20 feet.
Sidney street, north side—

\$ 134 00 \$22,523 75

ASSESSED.

Denniston, east side, from Penn avenue to Fifth avenue—
Etiza Anderson, 85, 178 feet.

Mrs. S. Connelly, 110 feet.
Cecil C. Schoeller, 96 feet.
Robert B. Cunningham, 24 feet.
George T. Bushfield, 48 feet.
Mary Morton, 48 feet.
Mary Myne, 736, 966 feet
T. J. May, 48 feet.
Catharine Mowry, 24 feet.
John Shaw, 24 feet.
Mrs. C. C. Eazear, 48 feet.
A. J. Harton, 59 feet. Mrs. C. C. Éazear, 48 feet.

A. J. Barton, 59 feet.

Ada S. Thomas, 25.5 feet.

Charles Mills, 25.5 feet.

R. Knowlson, 37 feet.

J. W. Carnahan, 97, 124.25 feet.

John Wilson, 99, 123.24 feet.

Mrs. C. M. Hostetter, 120 feet.

W. P. Greer, 120 feet.

Mary B. Dilworth, 68, 120 feet.

Demission, west side—

Mary B. Dilworth, 68, 120 feet.
Denniston, west side—
Eliza Anderson, 85, 148 feet.
Jos. Anderson, 38, 50 feet.
E. M. Hill, 148 feet.
J. R. Keating, 72 feet.
Henry Cyphers, 48 feet.
John L. Lindsny, 72 feet.
John Long, 48 feet.
John S. Cosgrave, 67, 58,88 feet.
Julius Voetter, 98,97 feet.
Julius Voetter, 185,83 feet.
Julius Voetter, 185,83 feet.
Julius Voetter, 185,83 feet.
James Green, 80 feet.
H. P., E. S. and W. R. Kuhn, 42,82 feet.
Atex. Bowman, 55, 120 feet.
Georre W. Hallman 62, 123,34 feet.
Jos. F. Denniston, 120 feet.
F. W. Gerdes, 65, 129 feet.

Respectfully submitted, EDWARD JAY ALLEN, DANIEL WENKE, TIMOTHY O'LEARY, JR., PITTSBURG, October 7, 1800.

DANIEL WENKE, TIMOTHY O'LEARY, JR., PITISEURG, October 7, 1890.

VIEWERS' REPORT—

On the construction of a public sewer on South Twenty-fifth street, from Josephine street to Monongahela river.

To the Select and Common Councils of the City of Pittsburg.

The undersigned, Viewers of Street Improvements in the city of Pittsburg, appointed by the Court of Common Pleas of Allegheny county, and authorized by an ordinance passed on the 25th day of July, A. D. 1889, a copy of which is hereto attached, to make an assessment of the cost and expense of constructing a public sewer on South Twenty-fifth street, from Josephine street to Monongahela river, in said city, upon the property benefited thereby ander the provisions of and in accordance with an act of Assembly of the Commonwealth of Pennsylvania, entitled "An act relating to sireets and sewers in cities of the seconn class," and retweet the filly report:

That, having been first duly sworn and qualified according to he directions of said in the manner and according to the directions of said in the manner and according to the directions of said in the manner and according to the directions of said the according to the directions of said according to the understance of the second the directions of said according to the dire

fled according to law, they proceeded in the manner and according to the directions of said act, to discharge the duties of their appointact, to discharge the duties of their appointments; that, having viewed the premises, they made an assessment of said cost and expense upon the property benefited, and caused a plot and statement to be made, as required by said act, and having given to the owner of each lot ten days' notice of the time and place of meeting, they met on the 4th day of October, A. D. 1850, at the office of the Board of Viewers, in the city of Pittsburg, heard all complaints and evidence offered, and having made all modifications and corrections which they deem proper, sassessed the cost and expense of constructing said sewer upon the following property, upon each for the amount set opposite the name of the owner thereof, viz.:

Chief Department Public Works, statement of costs—

Frankstown, north side, from Lin-coln to connection with sewer at Everett street— Mary Ewing, 88.18 feet.......\$ Mary A. Reimer, 42.70 feet.......\$ Aaron Reimer, 106.15 feet........ W. C. Riter and T. M. Johnson, 20 feet f costs-302 lineal feet 24 in. pipe sewer, \$2 37.\$ 5,597 94

E. T. Cassidy, 20 fee:
E. T. Parkinson, 20 fee:
Henry Carr, 40 feeet
M. Haas, 41.50 feet
E. B. Wagner, 20 feet
G. G. Walter, 20 feet
El za Clements, 20 feet
James Lusk, 20 45 feet
James Lusk, 20 45 feet
W. A. Kaufman, 40,50 feet
Jas, P. Dahlem, 40,90 feet
Jas, P. Dahlem, 40,90 feet

On the opening of Meadow street, from Park avenus to Larimer street.
To the Select and Common Councils of the City of Pittsburg,
The undersigned, Viewers of Street Improvements in the city of Pittsburg, appointed by the Court of Common Pleas of Allegheay county, and authorized by an ordinance passed on the 9th day of September, A. D. 1889, a copy of which is hereto attached, to appraise the damage sustained in the opening of Meadow street, from Park avenue to Larimer street, in the city of Pittsburg, and make an assessment therefor under the provisions of and in accordance with an act of Assembly of the Commonwealth of Pennsylvania, entitled, "An not relating to streets and sewers in citics of the second ciass," approved the 16th day of May, A. D. 1889, respectfully report:

That, having been first duly sworn and qualified according to law, they proceeded in the manner and according to the directions of said act, to discharge the duties of their appointments; and having given the notices required by said act, they viewed the premises and heard all the allegations and evidence of the several parties claiming damages, and after full consideration thereof, made a true and conscionable appraisement of the same; that, after ascertaining the whole amount of damages, they made an assessment of the same; that, after ascertaining the whole amount of damages, they made an assessment of the same upon the properties benefited by said improvement, and caused a plot to be made and prepared a statement, as required by said act, and, having given to the owner of each lot ten days' notice of the time and place of meeting, they met on the 13th day of February, A. D. 1899, at the office of the Board of Viewers, in the city of Pittsburg, heard all complaints and evidence presented, and, after full consideration thereof, do find that the following named owners of property will sustain damages for which they are entitled to compensation, each for the amount set opposite his name, respectively, vizing the mounts of the same and prepa Wm. McKnicht, \$2 feet.
Wm. McKnight, 67 feet.
West side—
P. V. & C. R. R., 79, 65 feet.
P. V. & C. R. R., 120 feet.
Chas. E. Succop. 16, 20 feet.
C. W. Phillips, 16, 20 feet.
D. C. Phillips, 16, 20 feet.
W. Derbaum, 16, 20 feet.
John O. Phillips, 32, 40 feet.
John O. Phillips, 32, 40 feet.
Eliza McMullin, 16, 20 feet.
F. Schiedal, 16, 20 feet.
W. Decker, 32, 40 feet.
James Campbell, 55, 81 feet. F. Schiedal, 16, 20 feet.

W. Decker, 32, 40 feet.

James Campbell, 55, 81 teet.

Pat Boyle, 17, 21 feet.

W. C. Labbett, 14, 18 feet.

W. Finch, Sr., 44, 60 feet.

W. Finch, Sr., 44, 60 feet.

W. M. Finch, Sr., 44, 120 feet.

W. M. Finch, Sr., 41, 120 feet.

W. M. Finch, Sr., 41, 120 feet.

W. M. Finch, Sr., 41, 120 feet.

Walter A. Finch, 18, 20 feet.

Eliz C. Robinson, 18, 20 feet.

J. S. Atkinson, 18, 20 feet.

J. S. Atkinson, 18, 20 feet.

J. Bobinger, 18, 20 feet.

J. Bobinger, 18, 20 feet.

G. Clifton Wharton of G. C. Burgwin, assignee, 80 feet.

Republic Iron Works, 120 feet.

Republic Iron Works, 126 feet.

Republic Iron Works, 136 feet.

Republic Iron Works, 34 feet.

Republic Iron Works, 34 feet.

Republic Iron Works, 36 feet.

Mary street, south side—

P. V. & C. R. R., 93, 360 feet.

Harcums alley, north side, from crown to crowp—

Wm. McKenna, 16, 20 feet.

Harcums alley, north side, from crown to crowp—

Wm. McKenna, 16, 20 feet.

Li F. Reib, 16, 20 feet.

Li F. Reib, 16, 20 feet.

Elijah Hays, 22, 20 feet.

W. P. Mason, 16, 20 feet.

Elijah Hays, 22, 20 feet.

Elijah Hays, 22, 20 feet.

South side—

D. C. Phillips, 22, 20 feet. ell, 65, 81 leet,.... South side— D. O. Cunningham, 102, 252 feet..... D. C. Phillips, 22, 20 feet.....

OFFICIAL-PITTSBURG

Crossman, 22, 20.... Phillips, 22, 20 feet

ah street, north side— ilick, 22, 20 feet.....

lijah Hays, 105, 96 feet..... M. Yard, 22, 20 feet.....

Carey alley, north side— V. Finch, Sr., 18, 24 feet.....

Jirich Meyer et al, 16, 20 feet.....

G. Yellick, 16, 20 feet. Carson, west side— Will S. Jones, 20 feet. E. M. Yard, 20 feet.

Sidney street, north side— William McKnight, 88, 180 feet. Clifton Wharton (R. C. Burgwin, as-signee), 67, 287 feet.

South side—
Frank H. Jackson, 1B, 20 feet.
Kate Nehren, 19, 20 feet.
Emily J. Bell, 19, 20 feet.
A. D. Russell, 19, 20 feet.
P. Yellig, 48, 60 feet.
Fox alley, north side—
William McKnight, 101, 180 feet.
Republic from Works, 111, 468 feet.
South side—
Republic Lean Works, 411, 468 feet.

Republic Iron Work, 149, 431 feet.....

Co.) \$1 (8)

Description of the control of the cont

Frankstown, north side, from Lin-

Misses Holmes, 13 feet. Misses Holmes, R. M. M. J. F. J. and C. N., 56 25 teet.

EDWARD JAY ALLEN, DANIEL WENKE, TIMOTHY O'LEARY, JR., PITTSBURG, October 11, 1890.

Thos K. Davidson, 91 90 feet

ASSESSED.

PITTSBURG, October 4, 1890.

VIEWERS' REPORT-

ron Works, 68, 465 feet.....

Respectfully submitted, EDWARD JAY ALLEN, DANIEL WENKE, TIMOTHY O'LEARY, JR.,

On the construction of a public sewer on Frankstown avenue, from Lincoln avenue to

DAMAGES. F. T. Cassidy... Jno. F. Hunter. Jac. C. Knippe.
Samuel and Daniel Shaffer.
Printing ordinance and notices.
Printing viowers' report.
Making plan and serving notices....
Viewers' time. South side—
Jane O. Phillips, 16, 20 feet
F. J. Crossman, 16, 20 feet
Larkins alley, north side—
Mobert Moore, 26, 24 feet
Thomas Hager, 22, 20 feet
Bernard Schmid, 44, 40 feet
John Lindner, 22, 20 feet
James Fitzsimmons, 22, 20 feet \$1,980 87 ASSESSED. Meadow street, northside, from Lar-South side—
John Farnen, 44, 49 feet.
Jacob Reis, 22, 29 feet.
K. Luidner, 16, 29 feet
Emma Equz, 24, 22 feet.
Daniel Born, 24, 22 feet.
Sarah streat morth side. Yellick, 16, 20 feet.
Pteil beirs, 16, 20 feet.
Lothis, 32, 40 feet.
hn Sankey, 26, 24 feet.

OFFICIAL-PITTSBURG.

VIEWERS REPORT-

Meadow street, northside, from Larimer to Park—
John Moss, 54, 196.86 feet...

Henry Mosely, 80, 67.98 feet...

Amos O. Cavin, 52, 43.98 feet...

Georgo W. Chalfant, 85, 72,33 feet...

Hannah Ray, 72, 69 feet...

J. W. Doak, 190, 134.59 feet...

E. T. Cassidy, 52, 44.83 feet...

J. F. Hunter, 82, 44.83 feet...

J. F. Hunter, 82, 44.83 feet...

John W. Matthews, 19, 16,92 feet...

Thos, D. Johnston, 19, 16,92 feet...

Cath. McKenner, 39, 31,39 feet...

John C. Knipp, 26, 22,38 feet...

Fred G. Hague, 72, 60 feet...

East Eod Homestead L. & T. Co., 34, 29,78 feet...

Sam'l & Dnn'l Shaffer, 154, 129,50 feet...

South side— South side—
Theo. Weiss, 50, 109,68 feet.
Andrew Reimer, 23,69 feet.
Wm. Woolslayer, 23,69 feet.
Charlotte Blume, 94,49 feet. Jennie and Lucinda McBride, 47.24 J. A. Patterson, 23.62 feet.
Lillian Lytle, 23.62 feet. J. A. Patterson, 23.62 feet
Lillian Lytle, 23.62 feet
Emma Caskey, 25.40 feet
Margaret Kable, 25.40 feet
Moses Laird, 25.40 feet
George Wilson, 44 feet
Louis Ruppel, 48 feet
Jno. Kalser, 24 feet
Anna M. Aland, 119 feet.
Jno. P. Geisler, 24 feet Ino. P. Geisler, 24 feet Marg't Layman, 22 feet.
Frank Killian, 23 feet.
J. O. McMinn, 23 feet.
J. da C. Thompson, 46 feet.
D. P. Lemon, 23 feet.
Wm, Kirker, 23 feet.

etfully submitted,
EDWARD JAY ALLEN,
DANIEL WENKE,
TIMOTHY O'LEARY, JR.,
Viewers, PITTSBURG, February 13, 1890

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TIEWERS' REPORT-V
On the opening of Kaercher street, from Greenfield street to Forrester street.
To the Select and Common Councils of the
city of Pittsburg.
The undersigned, Viewers of Street Improvements in the city of Pittsburg, appointed by the
Court of Common Pleas of Ailegheny county
and authorized. and authorized by an ordinance passed on the 24th day of February, A. D. 1890, a copy of which is hereto attached, to appraise the damstreet, in the city of Pittsburg, and make an as \$ 7,947 74 essment therefor under the provisions of and in accordance with an act of Assembly of the

sessment therefor under the provisions of and in accordance with an act of Assembly of the Commonwealth of Pennsylvania, entitled, "An act relating to streets and sewers in cities of the second class," approved the lith day of May, A. D. 1889, respectfully report:

That having been first duly sworn and qualified according to law, they proceeded in the manner and according to the directions of said act, to discharge the duties of their appointment; and, having given the notices required by said act, they viewed the premises and nearly all the allegations and evidence of the several parties claiming damages, and, after full consideration thereof, made a true and consciousle appraisement of the same; that, after ascertaining the whole amount of damages, they made an assessment of the same upon the proporties benefited by said improvement, and caused a plan to be made and prepared a statement, as required by said act, and having given to the owner of each lot ten days notice of the time and place of meeting, they met on the 9th day of September, A. D. 1830, at the office of the Board of Viewers, in the city of Pittsburg, heard all the complaints and evidence, and, after full consideration thereof, do find that the following named owners of property will sustain damages for which they are entitled to compensation, each for the amount set opposite his name, respectively, viz:

Frankstown avenue, from Lincoln avenue to Everett street sewer. To the Select and Common Councils of the city of Pittsburg:
The undersigned Viewers of Street Improvements in the city of Pittsburg, appointed by the Court of Common Pleas of Allegheny county, and authorized by an ordinance passed the 28th day of October, A. D. 1886, a copy of which is hereto attached, to make an assessment of the cost and expense of constructing a public sewer on Frankstown avenue, from Lincoln avenue to Everett street sewer in the said city, upon the property benefited thereby, under the provisions of and in accordance with an act of Assembly of the Commonwealth of Pennsylvania, entitled "an act relating to the streets and sewers in cities of the second class," approved the 18th day of May, A. D. 1889, respectfully report:
That having been first daily sworn and coally. spectfully report:
That, baving been first duly sworn and quali-EXPENSES. \$327 30 ASSESSED. ASSESSED.

Kaercher street, north side, from Greenfield to Forrester—
George F. McCleane, 310 feet.
George P. McCleane, 32 feet.
E. C. Ertzman, 295 feet.
H. F. Jones, 162 feet.
Matt Weles, 73.84 feet.
Eliza M. Yoder, 175 feet.
Mary Neat. 24 feet.
Eliza M. Yoder, 72 feet.
F. M. Yoder, 50, 100 feet.
James Williams 48, 85.99 feet.
Peter Umbrey, 50, 100.29 feet.
Clara Savage, 60.10 feet.
South side— \$2,117 (9

Clara Savage, 60.10 feet.
South side—
South side—
Southel Hill Land Co., 319.20 feet...
John A. Kaercher, 465 feet.
John Sheppard, 41.54 feet.
Michael Barron, 41.54 feet.
Ed. House, Jr., 248.24 feet.
Adam Weizel, 75 feet.
John E. Williams, 19.06 feet.
John E. Williams, 59, 100.39 feet.
John E. Williams, 59, 100.39 feet.
John E. Williams, 59, 100.39 feet.
John E. Williams, 57, 54.70 feet. \$327 20 Respectfully submitted, EDWARD JAY ALLEN, DANIEL WENKE, TIMOTHY O'LEARY, JR. PITTSBURG, September 9, 1890,

A N ORDINANCE—AUTHORIZING THE approved by the city of Pittsburg, in Select and Common Councils assembled, and it is hereby ordained and enacted by the city of Pittsburg, in Select and Common Councils assembled, and it is hereby ordained and enacted by the authority of the same that the Chief of the Department of Public Works be and is hereby authorized and directed to cause to be surveyed and opened within sixty days from the date of the passage of this ordinance Duncan street, from Stanton avenue to Fifty, second street, at a width of 50 feet, in accordance with a plan on file in the Department of Public Works, known as "Carnegie & Co.'s plan of lots, situated in the Eighteenth Ward," approved by Councils May 27, 1872. The damages caused thereby and the benefits to pay the same to be assessed and collected in accordance with the provisions of an act of Assembly of the Commonwealth of Pennsylvania, entitled, "An act relating to streets and sewers in cities of the second class," approved the 18th day of May, A. D. 1892.

Section 2—That any ordinance or part of ordinance conflicting with the provisions of this ordinance conflicting with the provisions of this ordinance; or as the same affects this ordinance. Ordaned and enacted into a law in Councils

pealed, so far as the same affects this ordinance, Ordained and enacted into a law in Councils this 29 h day of September, A. D. 1890.

H. P. FORD, President of Select Council. Attest: GEO. BOOTH. Clerk of Select Council. G. L. HOLLIDAY, President of Common Council. Attest: E. J. MAKTIN, Clerk of Common Council.

Mayor's office, October 2, 1890. Approved: H. L. GOURLEY, Mayor, Attest: ROBERT OSTERMAIER, Mayor's Clerk.

Recorded in Ordinance Book, vol. 7, page 53, 9th day of October, A. R. 1890.

\$2,117 (9

Can you tell what kind of clay is needed (there

being different kinds) in the production of

aluminum, and what would it cost to put up a