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PERSONAL.

Mr. A. H. Robinson has been elected President of the Water Board of Lawrence, Mass.

Mr. H. R. Kling, consulting electrical engineer, of Detroit, Mich., has returned home after an absence of six months in Venezuela.

Mr. Kennerly Rohey, civil engineer with the Standard Oil Co., was married, Jan. 1, to Miss Florence Lillian Ashley, of Sullivan, Pa.

Mr. David Lee has been elected President and Mr. P. C. Sneed, Secretary and Treasurer of the Newark, Somerset & Statesville R. R. Co., of Newark, O.

Mr. Christopher Harrison has been elected City Engineer of Everett, Mass., and Mr. Geo. E. Tolman has been elected a member of the Board of Public Works.

Mr. William Bingham Nichols, of the firm of Wright & Nichols, civil engineers, of Los Angeles, Cal., was married, Jan. 18, to Miss Mary S. C. Perry, of that city.

Herr Wesselmann, of the Wesselmann Machinery Co., Berlin, Germany, is visiting the United States for the purpose of making purchases of machinery, machine tools and other supplies for the company. He is now at the Belvidere House, New York.

Capt. Til Huston, Second Regiment, U. S. Volunteer Engineers, at present stationed in Havana, Cuba, has been appointed Superintendent of the Water-Works of that city. He was formerly connected with the Water-Works Department of Cincinnati, O.

Mr. Charles L. Gist, Superintendent of Telegraph and Chief Dispatcher of the Pittsburgh & Lake Erie R. R., with headquarters at Pittsburg, Pa., has been appointed Superintendent of Transportation. Mr. G. B. Obey has been appointed to Mr. Gist's former position.

Mr. George S. Gatchell, Manager of the Associated Elevators of Buffalo, N. Y., has resigned his position as Expert Inspector to the New York State Railroad Commission, and Mr. Jefferson B. Schultz, formerly Roadmaster of the Rome, Watertown & Ogdensburg R. R., has been appointed to succeed him.

Mr. Clarence W. Marsh, civil engineer, who went to Porto Rico with the First Regiment, U. S. Volunteer Engineers, has returned to the United States and opened an office as a consulting civil engineer, at 489 Fifth Ave., New York city. Mr. Marsh is a graduate of Cornell University in the class of 1894.

Mr. Godfrey W. Rhodes, for many years Superintendent of Motive Power of the Chicago, Burlington & Quincy R. R., with headquarters at Aurora, Ill., has been appointed General Superintendent of the Burlington & Missouri River R. R. system, comprising all the Burlington lines west of the Mississippi River.

Mr. Ralph Modjeak, M. Am. Soc. C. E., of Chicago, has been appointed Consulting Bridge Engineer for the Pittsburg, Cincinnati, Chicago, & St. Louis Ry., the Chicago Terminal Transfer R. R. and the Chicago Junction Ry. for the construction of their new eight-track rolling lift bridge over the Chicago Main Drainage Channel.

Mr. F. A. Delano, Superintendent of Freight Terminals of the Chicago, Burlington & Quincy R. R., with headquarters at Chicago, Ill., has been appointed Superintendent of Motive Power, with headquarters in Aurora, Ill., to succeed Mr. Godfrey W. Rhodes, the appointment of whom to service elsewhere is noted in this column.

Mr. W. T. Backus, Superintendent of Transportation of the Detroit, Toledo & Milwaukee R. R., with headquarters in Toledo, O., has been appointed Division Superintendent of the Ohio Division of the Cincinnati Northern R. R., which has secured control of the former road. Mr. J. P. Waldo has been appointed Trainmaster of the Michigan Division, with headquarters at Tecumseh, Mich.

Prof. J. B. Johnson, M. Am. Soc. C. E., whose appointment as Dean of the College of Mechanics and Engineering of the University of Wisconsin was noted in our last issue, delivered a farewell lecture, Jan. 23, in Memorial Hall, St. Louis, Mo., under the auspices of the Washington University Association, on the subject, "The Fruits of Sanitary Science."

Mr. R. T. McKeever, General Superintendent of the Fonda, Johnstown & Gloversville R. R., with headquarters in Gloversville, N. Y., has been appointed Superintendent, at Ogdensburg, N. Y., of the Rutland R. R.,

which has secured control of the Ogdensburg & Lake Champlain R. R. Mr. Edward J. Chamberlin, General Manager of the Canada Atlantic Ry., with headquarters in Ottawa, Ont., has been appointed General Manager of the reorganized roads.

The valuable library of 4,000 volumes on engineering subjects, collected by Col. Loamm Baldwin, civil engineer, who died in 1808, and by his sons, Col. Loamm Baldwin, Jr., and Mr. George R. Baldwin, was partly destroyed by fire Jan. 28. The library, which early in the century was famous and contained rare and valuable works collected in this and in foreign countries, was contained in the old Loamm Baldwin house in North Woburn, Mass., which was saved from the fire that destroyed or damaged most of the books. The mansion was built by the first Col. Baldwin, who was a colonel in Washington's army, in 1761, and is now owned by Mrs. W. A. Griffith, of Quebec, a daughter of Mr. George R. Baldwin.

OBITUARY.

Mr. Robert O. Botterill, civil engineer, of Newport, R. I., died at Nasirubod Rajpootana, India, recently, of pneumonia.

Mr. John Keller, railway contractor and projector, died at his home in Lancaster, Pa., Jan. 28, aged 71. He was President of the Topeka & Fort Scott R. R.

Mr. Nathaniel B. Gordon, Superintendent of the J. B. & J. M. Cornell Iron Works, of New York city, died at his home in Westfield, N. J., Jan. 25, aged 61.

Mr. Adin H. Smith, first President of the Athol Water Co., Athol, Mass., died Jan. 21. He was born in that place, June 19, 1815, and was engaged in the manufacture of brick until some years ago.

Mr. Martin Lipps, contractor, of New York city, died Jan. 26, aged 38. He built the pipe lines at Syracuse and New Rochelle, N. Y., and Waterbury, Conn., and had also done work upon the Croton water supply of New York city.

Mr. Robert Rintoul Symon, President of the Western R. R. of Mexico, Vice-President of the Mexican Central Ry. Co., Ltd., and Chairman of the Michoacan & Pacific Ry., died at his home in London, England, Jan. 28, aged 60. Mr. Symon, in 1879, obtained from the Mexican Government valuable railway concessions, and has been connected with the railways of that republic ever since, making yearly trips from London to Mexico.

Mr. Charles E. C. Breck, civil engineer, of Boston, Mass., died at his home in Milton, Mass., Jan. 29, aged 64. He was a son of Mr. Charles Breck, also a civil engineer, who died recently at the age of 95. The son was associated with Mr. Herbert T. Whitman, early in his career, under the firm name of Whitman & Breck, civil and landscape engineers. The firm made the surveys for the Boston, Lynn & Revere Beach R. R. Mr. Breck was a member of the Boston Society of Civil Engineers and was a veteran of the Civil War.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

CHICAGO ELECTRICAL ASSOCIATION.
Feb. 3. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
Feb. 3. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

BROOKLYN INSTITUTE OF ARTS AND SCIENCES.
Feb. 3. Illustrated lecture, Prof. M. I. Pupin. Secy., Henry I. Weed, Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.

ENGINEERS' CLUB OF COLUMBUS.
Feb. 4. Secy., H. M. Gates, 12 1/2 North High St., Columbus, O.

ENGINEERS' CLUB OF PHILADELPHIA.
Feb. 4. "The Problem of Water Purification for the City of Philadelphia." P. J. A. Maigen. Secy., L. F. Rondicella, 1122 Girard St., Philadelphia, Pa.

ENGINEERING SOCIETY OF WESTERN NEW YORK.
Feb. 6. Secy., H. J. March, Library Bldg., Buffalo, N. Y.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
Feb. 6. Secy., C. L. Annan, City Engineer's Office, St. Paul, Minn.

NATIONAL BRICK MAKERS' ASSOCIATION.
Feb. 7-10. Annual meeting, Columbus, Ohio. Secy., Theo. A. Randall, Indianapolis, Ind.

AMERICAN INSTITUTE OF ARCHITECTS (New York Chapter).
Feb. 8. Secy., Chas. I. Berg, 10 West 23d St., New York city.

NEW ENGLAND WATER-WORKS ASSOCIATION.
Feb. 8. "Filtration, Slow Sand and Mechanical." Secy., J. C. Whitney, Newton, Mass.

FRANKLIN INSTITUTE.
Feb. 8. "Notes on the Reduction of Iron Ores." John M. Hartman; "Ice Caves," Edwin S. Balch. Secy., Wm. H. Wahl, 15 South 7th St., Philadelphia, Pa.

BROOKLYN ENGINEERS' CLUB.
Feb. 9. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.

CANADIAN SOCIETY OF CIVIL ENGINEERS.
Feb. 9. Secy., H. C. McLeod, 112 Mansfield St., Montreal, Que.

ENGINEERING ASSOCIATION OF THE SOUTH.
Feb. 9. Secy., C. B. Wilson, 100 Broad St., Nashville, Tenn.

WISCONSIN STATE CHEMICAL ASSOCIATION.
Feb. 10. Secy., I. Ladoff, 154 Knapp St., Milwaukee, Wis.

ST. LOUIS RAILWAY CLUB.
Feb. 10. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.

MONTANA SOCIETY OF ENGINEERS.
Feb. 11. Helena, Mont. Secy., A. S. Hovey, National Bank Bldg., Helena, Mont.

THE LOUISIANA ENGINEERING SOCIETY.
Feb. 13. Secy., J. F. Coleman, 712 Union St., New Orleans, La.

ENGINEERS' CLUB OF KANSAS CITY.
Feb. 13. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
Feb. 14. Secy., Wm. H. Scarles, Case Library Building, Cleveland.

DENVER SOCIETY OF CIVIL ENGINEERS.
Feb. 14. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Colo.

NORTHWEST RAILWAY CLUB.
Feb. 14. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.

NEW ENGLAND RAILWAY CLUB.
Feb. 14. Secy., Edw. L. Janes, P. O. Box 1158, Boston, Mass.

NATIONAL SANITARY ASSOCIATION.
Feb. 15. Annual meeting, New York city. Secy., Thos. E. Veal, Atlanta, Ga.

BOSTON SOCIETY OF CIVIL ENGINEERS.
Feb. 15. Secy., S. E. Tinkham, City Hall, Boston, Mass.

WESTERN FOUNDRYMEN'S ASSOCIATION.
Feb. 15. Secy., B. M. Gardner, 1522 Monadnock Block, Chicago, Ill.

WESTERN SOCIETY OF ENGINEERS.
Feb. 15. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.

ENGINEERS' CLUB OF ST. LOUIS.
Feb. 15. Secy., E. R. Fish, 2401 N. Spring Ave., St. Louis, Mo.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Feb. 15. Secy., C. W. Hunt, 220 West 57th St., New York city.

NEW YORK RAILROAD CLUB.
Feb. 16. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y.

ENGINEERS' CLUB OF CINCINNATI.
Feb. 16. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Feb. 16. Secy., F. A. Charplot, P. O. Box 13, Savannah, Ga.

THE DETROIT ENGINEERING SOCIETY.
Feb. 17. Secy., Henry Goldmark, Wayne Co. Savings Bank Bldg., Detroit, Mich.

ROCHESTER ENGINEERING SOCIETY.
Feb. 17. Secy., John F. Skinner, Reynolds Library Bldg., Rochester, N. Y.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Feb. 18. Secy., Frank Van Vleet, Currier Block, Los Angeles, Cal.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Feb. 20. "The Nicaragua Canal." Secy., Marshall Morris, 16 Norton Bldg., Louisville, Ky.

TECHNICAL CLUB OF OMAHA.
Feb. 20. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' CLUB OF MINNEAPOLIS.
Feb. 20. Secy., H. E. Smith, 1620 S. E. 14th St., Minneapolis, Minn.

WESTERN RAILWAY CLUB.
Feb. 21. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Feb. 21. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburgh, Pa.

AMERICAN INSTITUTE OF MINING ENGINEERS.
Feb. 21-25. Annual meeting, New York city. Secy., R. W. Raymond, P. O. box 223, New York city.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.
Feb. 22. Secy., Ralph W. Pope, 26 Cortlandt St., New York city.

ASSOCIATION OF ONTARIO LAND SURVEYORS.
Feb. 23. Annual meeting, Toronto, Canada. Secy., A. J. Van Nostrand, Toronto, Canada.

THE INDIANA ENGINEERING SOCIETY.—The 19th annual meeting of this society was held at Indianapolis, Jan. 24-26. A full account of the meeting is given elsewhere in this issue.

THE ILLINOIS SOCIETY OF SURVEYORS AND ENGINEERS.—This society held its 14th annual meeting at Champaign, Ill., Jan. 25-27. A full account of the meeting is given elsewhere in this issue.

AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS.—The regular winter meeting of this society was held in New York city, Jan. 24-26, and elsewhere in this issue will be found a full account of its proceedings.

ENGINEERS' CLUB OF COLUMBUS.—A meeting of this club was held on Jan. 21. Owing to the unavoidable absence of Prof. A. M. Bielle, who was to have presented the paper of the evening, only minor business was transacted.

CIVIL ENGINEERS' CLUB OF CLEVELAND.—The semi-monthly meeting of this club was held Jan. 24. The subject of the evening's discussion was a paper on "The United States Navy; its Material and the Reorganization of its Personnel."

SCRANTON ENGINEERS' CLUB.—The annual meeting of this club was held Jan. 24, at its rooms in the Board of Trade building. Reports from the various officers and committees were received. Officers for the ensuing year were elected as follows: Pres., W. M. Marple; Vice-Pres., C. C. Rose; Rec. Secy., H. W. Rowley; Cor. Secy., Morgan Davis; Treas., A. C. Lamont; Librarian, A. E. Lister; Directors, James Archibald, W. A. May, Charles Farrer.

The business meeting was followed by the annual banquet, which proved a very enjoyable affair.

NEW ENGLAND WATER-WORKS ASSOCIATION.—A regular meeting of this association will be held at Tremont Temple, Boston, Mass., on Feb. 8. The following papers will be presented: "Relative Applicability of Sand and Mechanical Filters," George W. Fuller, C. E., Chief Chemist and Bacteriologist, Water-Works, Cincinnati, Ohio; Discussion by Allen Hazen, C. E., New York city; "Filtration of Water," H. W. Clark, C. E., Chemist of Massachusetts State Board of Health, Lawrence, Mass.

The business of the association has grown to such proportions that to avoid embarrassment in the transaction of his regular work at Newton, the Secretary has appointed a clerk who will be located at the headquarters of the association in Tremont Temple, Boston. These headquarters

will hereafter be the official quarters of the Secretary, and he respectfully requests that all correspondence and communications be sent there. J. C. Whitney, Secy.

MICHIGAN ENGINEERING SOCIETY.—The 20th annual meeting of this society was held at Lansing, Mich., on Jan. 24-26. A paper was presented by Mr. J. J. Hubbell on "The Second Growth of Timber in Northern Michigan," in which the recommendation was made that the state should not sell the lands forfeited for non-payment of taxes, but should keep and seed them; also that extreme precautions should be taken to guard against forest fires.

Other papers were presented at the evening session, as follows: "Paving Streets in Small Towns," H. E. Riggs, Toledo; "Survey of Detroit River," F. Hodgman, Climax; "Water Waste in Small Towns," A. L. Holmes, Grand Rapids; "Construction of a Stone Highway Bridge," Owen Morris, Hyde Park, N. Y.; "Early Surveys of Indian Territory," O. H. Todd, Fairfax; "Coal and Coal Mining in Michigan," Chas. Holmes, Saginaw; "Something on Irrigation," A. L. Reed, California; "Organization and Early History of the Society," Prof. R. C. Carpenter; "History of the Society," F. Hodgman; "Reminiscences," William Appleton; "Landmarks," Prof. J. B. Davis; "Value of Engineering Societies," E. W. Maenscher. The following officers were elected for the ensuing year: President, J. J. Hubbell; Vice-Pres., H. E. Riggs; Secy. and Treas., F. Hodgman.

NORTHWESTERN ELECTRICAL ASSOCIATION.—The 7th annual convention of this association was held at Milwaukee, Wis., on Jan. 18-20. The morning of the first day was well occupied with reports from officers and committees. The question box was opened and the questions, which pertained to methods of enlarging "filed-up plants" and the best method for supplying incandescence lamps to customers, were briefly discussed.

At the afternoon session the President, Mr. F. A. Copeland, read his annual address. In this the reasons for the rapid and very satisfactory growth of the association were outlined, and suggestions were made to still further increase its membership and usefulness. Papers were presented as follows:

"Trend of Central Station Design," B. J. Arnold; "Meter Rate Systems," E. L. Debell, and "Electricity Direct from Coal," Prof. A. J. Rogers.

The morning of the second day the report of the Committee on Nominations was adopted, and the following officers were elected:

Pres., Henry L. Doherty, Madison, Wis.; First Vice-Pres., John H. Harding, Laporte, Ind.; Second Vice-Pres., S. B. Livermore, Winoona, Minn.; Secy. and Treas., Thomas R. Mercein, Milwaukee; Directors, Col. W. W. Bean, St. Joseph, Mich.; J. H. Culver, Decatur, Ill.; George Innes, Eagle Grove, Iowa.

Prof. Dugall C. Jackson then read a paper entitled "Inductive Loads on Alternating Current Transformers." Mr. George L. Thayer read a paper on "Design of Secondary Circuits in Alternating Plants." Mr. H. M. Maxim's paper on "Electric Vehicles and Their Relation to Central Stations" was, in his absence, read by Mr. Lord. The last paper, "Utilization of Exhaust Steam," was by Mr. J. H. Harding. Mr. Thomas R. Mercein was appointed a delegate to attend the annual meeting of the National Electric Light Association.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Table with columns: Bids to be opened, Work, Place, See Eng. News, and Date. Lists various construction projects such as bridges, schools, and power houses across different states.

Table with columns: Project Name, Location, and Date. Lists numerous construction projects including engine houses, school buildings, bridges, and water works across various states like Pennsylvania, Texas, Ohio, and Michigan.

RAILWAYS.

ACME TAP.—This company has been incorporated in Texas, with headquarters at Quanah, Tex., to construct about 1 1/2 miles of spur line from the Fort Worth & Denver City R. R. to the Saline Cement Plaster Co.'s works. F. H. Quincy, Director.

Toledo, O., has the contract for construction and equipment, and will begin work within 60 days after the completion of surveys. The company must also finish this section of road in eight months. Further extensions are projected northerly to Medford and southerly to Atoka, Ind. Ter., making the completed line 250 miles in length. T. C. Frazier, Ch. Engr., Seneca, Kan.

ARKANSAS & NORTHWESTERN.—This company has been incorporated in Arkansas, with a capital stock of \$150,000, to build from Hope to Stamps, Ark., about 22 miles. At Stamps a connection will be made with the Louisiana & Arkansas Ry., of which Wm. Buchanan, of Stamps, Ark., is President. W. I. Foster and S. L. Tracey are incorporators.

BUFFALO & SUSQUEHANNA.—Reports state that this line will soon be extended from Wellsville to Belfast, via Scioto and Belmont, N. Y., about 20 miles. If built the old roadbed constructed several years ago will probably be used. H. Herden, Ch. Engr., Galeton, Pa.

CHIHUAHUA & PACIFIC.—Bids are being received by this company, according to reports, for contractors supplies, including derricks, hoisting engines, steam excavators, etc., to be used on the construction of this line from Chihuahua, Mex., via Guerrero, to the Pacific Coast, 600 kilometers (372.6 miles). Work is being pushed, and it is hoped to reach Guerrero by April. Among the recent purchases said to have been made by the company was one from the Colorado Fuel & Iron Co. for 14,000 tons of steel rail; from the Brooks Locomotive Co. five locomotives, and from the Ensign Car Mfg. Co. for the Pullman Co., and the Barney & Smith Co., for 50 freight cars and 10 combination passenger coaches.

CUBA.—Press reports state that the Sagua La Grande Ry. has passed into the hands of the capitalists who recently bought the Havana street railway system. The company owned 70 miles of road.

DECKERVILLE, OSCEOLA & NORTHERN.—E. M. Ford, Vice-Pres. and Mgr., Deckerville, Ark., informs us that Forrester & Warren, Golden Lake, Ark., have been awarded the contract for 21 miles of grading, and John Anderson, Bardstow, Ark., the contract for five miles on this line, to be built from Deckerville to Paw Paw Junction, Mo., 102 miles. The contract is held by the Bond-Decker Lumber Co., Deckerville, Ark. Geo. W. Decker, Pres., Newport, Ark.; B. B. Gordon, Ch. Engr.

DELAWARE.—This company was incorporated at Dover, Del., Jan. 26. It includes the old Delaware R. R., now the Delaware Division of the Philadelphia, Wilmington & Baltimore, the Queen Ann & Kent, the Delaware & Chesapeake and the Cambridge & Seaford railways. The capital of the new company is \$2,987,000, or \$300,000 more than the present capital of the Delaware Railroad Co. H. F. Kenney, Pres., Philadelphia, Pa.; E. T. Warner, Vice-Pres., Wilmington, Del.

DENVER & RIO GRANDE.—E. T. Jeffrey, Pres. and Gen. Mgr., Denver, Colo., informs us that this company will standard gage its line from La Veta to Alamosa, Colo., 60 miles, which is now narrow gage, and in doing this will build 26 1/2 miles of new road in a new location, and widen the gage of nearly 34 miles. The contracts for the work are let, the principal contractors being Clough & Anderson, Colorado Springs, Colo. The maximum grades over the summit will be 3% westbound and 2 1/2% eastbound; the greatest length of 3% grade being 13 miles. There will be three tunnels through solid rock, aggregating about 1,500 ft.; maximum curvature, 12 degrees. No new securities will be issued, but the expenditures will be met out of assets in the treasury.

EAST TENNESSEE & WESTERN NORTH CAROLINA.—Reports state that an extension of this line is projected from its present eastern terminus at Cranberry, N. C., to a connection with the Seaboard Air Line, and that a bill for that purpose has been introduced into the North Carolina legislature. R. F. Hoke, Pres., Raleigh, N. C.

ERIE EASTERN.—We are informed that Hoover & Stearns, Columbus, O., are said to have the contract for the construction of this line from Erie to Mill Village, via Waterford, Pa., 20 miles. A new survey will probably have to be made, and the right of way has yet to be obtained. Columbus parties are reported to have agreed to furnish capital to build the line and extend it to Titusville during the coming summer. John C. Whittle, Pres., Pittsburg, Pa.; E. J. Howard, Vice-Pres., Erie.

FORT DODGE & OMAHA.—Bids are asked by C. E. Loss & Co., contractors, Pullman Bldg., Chicago, Ill., for about 40 miles of grading, averaging 20,000 cu. yds. a mile between Tara and Carnarvon, Ia. on this extension of the Illinois Central R. R., as stated in our advertising columns.

FORT SMITH & WESTERN.—This company has been incorporated in Arkansas, with a capital stock of \$5,000,000, to build from Fort Smith to Kingfisher, Ind. Ter. The directors are: John Valle, Fort Smith, Ark.; Geo. Hayden, Ishpeming, Mich.; Solomon S. Curry, Ironwood, Mich., and others.

FORT WORTH & RIO GRANDE.—W. B. King, Ch. Engr., Fort Worth, Tex., informs us that nothing has yet been done towards the proposed extension of this line, not even in the way of surveys. John Hornby, Pres.

GEORGIA & ALABAMA.—We are informed that the directors of the Georgia & Alabama Ry. Co. and of the Georgia & Alabama Terminal Co. have authorized J. Skelton Williams, Pres., Richmond, Va., to contract immediately for the construction of the \$100,000 steel draw-bridge across the Savannah River, between Savannah, Ga., and Hutchinson's Island, where the company's extensive new terminal is to be located. A large amount of dredging along the water front is contemplated. The construction of 16 miles of new track from Mcdirm into Savannah was also authorized. C. P. Hammond, Ch. Engr., Savannah.

KANSAS & TEXAS COAL.—Geo. B. Leighton, Vice-Pres., St. Louis, Mo., informs us that this company has built six miles of railway from Brevier towards Excelsior, Mo., and expects to have the remaining four miles in operation by next May. The work is being done by the company. B. F. Hobart, Pres., St. Louis.

LOWELL & HASTINGS.—W. H. Clark, Gen. Mgr., Lowell, Mich., informs us that W. A. Smith & Co., Grand Rapids, Mich., have been awarded the contract for the construction of this proposed line from Alton to Belding, via Slayton, Mich., 17 1/2 miles; work to begin April 1. The surveys have been made, most of the right of way obtained and all of the capital secured. C. A. Gordon, Ch. Engr., Grand Rapids, Mich.

MANKATO & NEW ULM.—Surveys have begun on this proposed branch of the Chicago & Northwestern Ry. from Mankato to New Ulm, Minn., via Blue Earth and Brown counties, about 24 miles. J. E. Blunt, Ch. Engr., Chicago, Ill.

MOORE COUNTY & WESTERN.—The time for the completion of the extension of this line from Aberdeen, N. C., towards Concord, has been extended from March 1 to Sept. 1, as the grading is quite heavy. A contract will soon be made for eight miles of new rails, twelve miles

of rails having already been bought. Surveys to Concord are in progress, and will be completed in about two months. W. B. Eekhout, Supt. of Construction; H. L. Thurston, Ch. Engr., both of Aberdeen, N. C.

NATIONAL YUCATAN SOUTHEASTERN.—This company has been organized to build a single track railway centering at San Antonio, Yucatan, with main line running north to Valladolid; west to Peto, and south to the boundary near Beliza, British Honduras. Other lines will later be built southwest to Chausantocruz, and to the bay of Ascension and Espiritu Santo, on the Caribbean Sea. The capital stock is \$1,000,000, and among those interested are said to be H. P. Booth, Pres. of the New York & Cuba Mail Steamship Co.; W. D. Munson, of the Munson Steamship Co.; and J. M. Motley, of the Thornton N. Motley Co., 43 John St., New York. The purpose of the company is to open up a large, rich and hitherto undeveloped country in Yucatan.

ONTARIO & RAINY RIVER.—D. F. Burk, Port Arthur, informs us that re-surveys for location purposes are now being made by ten parties for this proposed line from Port Arthur, Ont., to Winnipeg, Man., via Shebandowan and Port Francis, a distance of 400 miles. H. Fauquier, of Port Arthur, is now building 20 miles, and 50 miles on the western end were constructed last summer under the name of the Southeastern Ry. The whole line is expected to be built within two years. H. Nichols, Pres., Toronto, Ont.; Thos. H. White, Ch. Engr., Port Arthur.

OREGON R. R. & NAVIGATION.—N. Roman, of Spokane, Wash., is reported to have been awarded the contract for constructing a portion of the extension of this line from Wallula, Wash., to Lewiston, Idaho.

PARRAL & DURANGO.—This company was incorporated in Colorado Jan. 26, with \$1,000,000 capital stock, to operate under concessions secured by Samuel E. Gill, Pittsburg, Pa. The directors are: W. F. Armstrong, Thomas M. Armstrong, John R. McGinley and others, of Pittsburg.

PHILADELPHIA & READING.—This company is said to be considering the advisability of building a short line between Mullica Hill, N. J., and Glenloch, the terminus of the Gloucester branch. At present Mullica Hill is 31 miles from Philadelphia by way of Williamstown Junction, and the new connection would reduce the distance about one-half.

QUINCY, CARROLLTON & ST. LOUIS.—This company was incorporated in Illinois Jan. 27, with \$500,000 capital, to build a line from Quincy to Vandalia, Ill., to be operated in connection with the Litchfield, Carrollton & Western Ry., which extends from Barnett west to the Illinois River. The latter road will be extended east to Vandalia, making through connection from Quincy to St. Louis. The incorporators are: David R. Francis and William P. Kennett, St. Louis, Mo.; L. P. Peebles, Carlinville, Ill.; George W. Davis, James McNabb and Ornan Pierson, Carrollton; Thomas H. Francis, St. Louis, Mo.

SOUTHERN, ALA.—Bids are asked by R. M. Quigley & Co., Georgiana, Ala., until Feb. 6, for grading, timber work and tunnel on 45 miles of new railway between Pine Apple and Repton, Ala. R. Montfort, Engr., Louisville, Ky., informs us that R. M. Quigley & Co. are the

THUNDER BAY, NEPIGON & ST. JOSEPH.—D. F. Burk, Gen. Mgr., Port Arthur, Ont., informs us that surveys have been made for 80 miles of line, and that the proposed route is from Port Arthur to St. Joseph, via Venison, Ont., about 200 miles. The company receives a subsidy of \$3,200 a mile from the Dominion government, and \$3,000 from the Province. Work is expected to commence in May. I. L. Matthews, Pres.; Z. Malhot, Ch. Engr., both of Port Arthur.

TEXAS WESTERN & CIRCLE BELT.—This company was incorporated in Texas Jan. 25, with \$5,000,000 capital stock, to build from Galesville to Ahlens, Tex., about 170 miles. The directors are: A. B. Donaldson and J. L. Simpson, of Galesville, Tex.; Samuel H. Buck, of New York; J. W. Veal, of Amarillo, Tex., and others.

TOPEKA, WESTMORLAND & WATERVILLE.—G. S. Glead, Topeka, Kan., informs us that nothing has yet been done towards building this proposed line, to be 150 miles in length. The incorporation was noted in our issue of Jan. 19.

STREET AND ELECTRIC RAILWAYS.

YARMOUTH, ME.—Reports state that a new company has secured control of the Yarmouth electric railway, and that the equipment will be improved. Seth L. Larrabee, Pres.; Henry P. Cox, Treas., of Portland, Me.

BOSTON, MASS.—We are informed that the Pennsylvania Steel Co., Steelton, Pa., was awarded the contract Jan. 24 for the erection of the Dudley St. terminal of the Boston Elevated Ry., involving about 850 tons of steel structure. Work is to be completed by Aug. 1. Wm. A. Gaston, Pres.; Geo. A. Kimball, Ch. Engr., both of 101 Milk St., Boston.

MEDFIELD, MASS.—W. W. Mitchell, of Medfield, Pres. of Norfolk & Western St. Ry., informs us that track has all been laid on this new line between Medfield and Dedham, via Westwood, nine miles. Work is now in progress on the turnouts and the setting of poles, and it is expected to have the line ready for operation early in March. Hodges & Harrington, Engrs., 60 State St., Boston.

WALTHAM, MASS.—A charter will soon be asked for the Waltham, Ayer & Pepperell St. Ry. Co., which proposes to build from a connection with the Waltham and Boston street railways at Waltham to the state line at Pepperell, via Concord, Lexington, Littleton and Ayer.

WHITMAN, MASS.—The selectmen will give a hearing, Feb. 10, to the application of the Brockton & Plymouth St. Ry. Co. for a franchise through this town. John P. Moore, Brockton; Horatio F. Copeland, Whitman, and others are directors.

BROOKLYN, N. Y.—The Brooklyn Union Elevated R. R. Co. was incorporated, with a capital of \$18,000,000. It is organized to operate the franchises of the Brooklyn Elevated R. R. Co., the Union Elevated R. R. Co. and the Seaside & Brooklyn Bridge Elevated R. R. Co., which together with the property of those companies, were lately sold at public auction. The directors are: Frederick P. Olcott, Bernardsville, N. J.; James T. Woodward, Charles Parsons, Edward Lantierbach and others, of New York; William Hall, Jr., of Summit, N. J.; G. W. Wingate, Brooklyn.

GREENWICH, N. Y.—This village granted a franchise to the Greenwich & Schuylerville Electric Ry., Jan. 28, to build on Elm, Main and other streets. Madigan & Warner, of Mechanicville, are said to be surveying at present between Schuylerville and Stillwater. Jos. H. Powers, Secy., Lansingburgh, N. Y.

HUDSON, N. Y.—The Colonial Trust Co., New York, trustee for the Columbia & Rensselaer Ry. & Lighting Co., has bought the rights in the water power of Kinderhook Creek, Stuyvesant Falls, at \$125,000. Reports state that this is a step towards the construction of an elec-

tric line between Hudson and Albany. The company is said to have control of Hudson St. Ry. and the Kinderhook & Hudson Ry., and a new line will be built from Niverville to Albany.

ROCHESTER, N. Y.—The Rochester & Sodus Bay Ry. Co. has been granted a franchise by the state railroad commissioners to construct an electric line from Rochester to Sodus Point, via Webster, Sea Breeze, Ontario, Union Hill, Williamson and Sodus, about 42 miles. Preliminary surveys have been made. Thos. J. Nicholl, Pres.; Le Grand Brown, Ch. Engr., both of 267 State St.

UTICA, N. Y.—I. J. Griffith, of the Sauquoit Valley Electric St. R. Co., of Utica, informs us that part of the surveys have been made and 20 miles of right of way obtained for this proposed 25-mile line from Utica to Sauquoit and Clayville, via Capron, New Hartford, Clinton, Washington Mills, Chilverwaie and Chadwicks. The capital has not yet all been secured. Contracts will be let as soon as surveys are completed.

WHITE PLAINS, N. Y.—A certificate of extension of the route of the New York, Westchester & Connecticut Traction Co. from Mount Vernon to White Plains and Bronxville was filed Jan. 28 with the secretary of state.

KEYPORT, N. J.—We are informed that the Keypoint & Matawan St. R. R., now operated between Keypoint and Matawan, 3.75 miles, will be converted from a horse car line into a trolley line and will probably be extended to Atlantic Highlands. For further information see Electric Light and Power. Address the Middlesex & Monmouth Electric Light, Heat & Power Co., Box 243, Equitable Bldg., New York.

PERTH AMBOY, N. J.—The Perth Amboy R. R. Co., recently granted a franchise in this town, informs us that plans have not yet been completed for the proposed trolley line. Lewisohn Bros., of the Raritan Copper Works, are interested.

ERIE, PA.—Dr. B. A. Smith, 18th and Peach Sts., informs us that contracts will soon be let for the construction of the line of the Erie Transit Co. from Erie to Cambridge Springs, via Edinboro. Surveys will be completed in the spring. The right of way has been obtained and part of the capital secured. Willington Dowling, Pres.; J. F. Walker, Secy.—Another electric railway from Erie to Northeast, 14 miles, is also being promoted. A franchise has been obtained in Erie and along most of the country roads. This line will probably be a link of the projected system between Cleveland, O., and Buffalo, N. Y., parallel to the Lake Shore R. R.

LANSDALE, PA.—The Lansdale & Harleysville Ry. Co. will soon apply for a charter, according to reports, with a capital stock of \$50,000, to build a trolley line from Lansdale to Harleysville. J. S. Geller, Pres.; A. C. Godshall, Secy. and Treas.

PHILADELPHIA, PA.—The Ludley Ave. Ry. Co. and Fischer's Lane Ry. Co. were incorporated, Jan. 26, both with a capital stock of \$12,000. These railways, together with tracks laid and rights which the Union Traction Co. already possess, will complete a through line from Frankfort to Germantown, and with the Germantown & Fairmount Park Ry. to the Falls of Schuylkill. The incorporators are: Michael Ehret, David C. Golden, William Wharton, Jr., Pres.; Alex. Rennieck and Richard F. Bower, all of Philadelphia.

WASHINGTON, D. C.—Bids were asked until Jan. 28, by the Columbia Ry. Co., 1509 Florida Ave., N. E., for furnishing 400 round chestnut poles, 30, 35 and 40 ft. in length with tops 8 ins. in diameter, and also for 22,000 cross ties. T. J. Kling, Secy.

BALTIMORE, MD.—It is reported that an agreement has been made whereby a syndicate headed by Alexander Brown & Sons will assume control of the Baltimore Consolidated Ry. and other companies in this city. It is proposed to build a central power station to generate 15,000 HP., at a cost of about \$500,000.

ALLIANCE, O.—We are informed that L. J. Reigler, Canton, O., and Hugh Blakely, are making surveys for an electric railway between this city and Akron.

CLEVELAND, O.—A new company, composed of Jacob B. Perkins, David Morrison, H. W. S. Wood and others, have applied to the council for permission to build an extensive system in the west and south sides of the city.

HAMILTON, O.—The county commissioners have granted a franchise to build on the Hamilton, Eaton, Newcomb & Somerville Turnpike. J. E. Anderson, Pres., Eaton, O.

MARYSVILLE, O.—The Marysville, Richwood, Magnetic Springs & Delaware Electric Ry. Co. is seeking a franchise from the commissioners of Union county. Surveys will soon be made. J. P. Eubanks, Secy., Magnetic Springs, O.

SPRINGFIELD, O.—S. L. Nelson, Gen. Mgr. of Springfield Ry. Co., informs us that construction work is under way for the extension of this company's lines to Snyder Park and the Pythian and Odd Fellows' Homes, 1½ miles. Wm. B. McKinley, Pres., 19 Scott St., Chicago.

TOLEDO, O.—The commissioners of Lucas county have granted a franchise to the Seagrave Bros. for an electric railway to run from this city to Sylvania, via West Toledo.

ANGOLA, IND.—Sol. A. Wood, Angola, informs us that no further steps than organization have been taken by the Northeastern Indiana St. Ry. Co. towards building the proposed line from Orland to Fort Wayne, via Angola, Waterloo, Auburn and Garrett, 60 miles. S. A. Power, Pres., Angola; M. E. Griswold, Ch. Engr., Auburn, Ind.

NOBLESVILLE, IND.—The Noblesville, Alexandria & Hartford City Electric Ry. Co. is said to have been organized with a proposed capital of \$50,000, to build from Noblesville to Hartford City. This is the project being promoted by A. J. Applegate, Perkinsville, Ind.; W. R. Myers, Anderson; George Fertig, Noblesville, and others.

WARSAW, IND.—Noah J. Clodfelter secured a franchise from the council Jan. 25 for the construction and operation of an electric railway from Waraw to Winona Lake.

CHARLESTON, ILL.—The council has granted a franchise to the Charleston & Matton Electric St. Ry. The line must be in operation by Nov. 1, 1900.

ROCKFORD, ILL.—The Rockford & Belvidere Electric R. R. Co. has been incorporated, with \$50,000 capital stock, to build from Rockford to Belvidere with branches. The incorporators are: H. L. Jewell, W. H. Vorhis, C. B. Masslich, W. D. Sheahan and F. A. Poor, all of Chicago.

FORT SMITH, ARK.—W. D. Boyce & Co., Chemical Bldg., St. Louis, Mo., have been selected as the engineers and contractors for a complete electric railway system, with all track, overhead work, power house equipment, cars, etc., to be built in this city, for the Fort Smith Traction, Light & Power Co.

FLORENCE, COLO.—Thomas Robinson, of Florence, is said to be at the head of a project to construct a rapid

transit line between this city and Canon City. Surveys will be made at once.

TACOMA, WASH.—Reports state that Henry Bucey, representing the Seattle & Tacoma Electric Ry. Co., is interested in the proposed construction of an electric line between these two cities, to be 31 miles in length.

PASADENA, CAL.—J. G. Rossiter has been granted a franchise to build in this city.

OTTAWA, ONT.—The Ottawa Electric Ry. Co. has applied to the Dominion Government for permission to extend its line to Bell's Corners.

MIXATITLAN, MEX.—We are informed that contracts have been made for the construction of three tram lines connecting the neighboring towns of Mixatitlan, Jalilpan and Azalan with the new Tehuantepec Isthmus R. R.

ELECTRIC LIGHT AND POWER.

DEERING, ME.—The Deering Electric Light & Power Co. has applied for permission to build a sub-power station on Forrest Ave.

ST. ALBANS, VT.—Bids are asked until Feb. 14 for installing a system of conduits and wiring for electric lighting in the custom house. W. B. Howell, Asst. Secy. Treasury Dept., Washington.

PEABODY, MASS.—At the town meeting in March the question of extending the lighting system to South Lynnfield will be considered.

WHITMAN, MASS.—The plant and property of the Whitman Electric Co. have been sold to a new company by J. R. Graham, of Quincy, Mass. F. S. Davis, Mgr.

WALLINGFORD, CONN.—This place voted Jan. 23 to issue \$45,000 in 20-year 3½% bonds for a municipal plant. Burgess Hodgkinson may be addressed.

ALBANY, N. Y.—The trustees of public buildings are considering the question of installing a plant in the State Capitol building at a cost of about \$100,000. I. G. Perry, State Arch., Albany.

NYACK, N. Y.—The Nyack Electric Light Co. proposes to extend its service to Sparkill, Grand View and Piermont.

SYRACUSE, N. Y.—The village of Elmwood has granted a franchise to the Elmwood Light & Power Co. and the Elmwood Water Co., both recently incorporated with a capital stock of \$100,000 each by Robt. C. Pruyn, Albany, N. Y.; Wm. L. Elkins, Jr., Philadelphia, and John Dunfee and W. B. Kirk, of Syracuse. A 5-year contract for lighting the village has also been secured.

MATAWAN, N. J.—We are informed that the Middlesex & Monmouth Electric Light, Heat & Power Co., Box 243, Equitable Bldg., New York, wants bids until Feb. 10 for furnishing a 250-HP. Corliss engine, 250-HP. boilers, 150-K-W. alternating dynamos, overhead wires, lamps, transformers, etc., for its proposed light and power plant. The plant will have a capacity for furnishing 175 2,000-c. p. arc and 3,000 16-c. p. incandescent lights.

WESTFIELD, N. J.—The township committee will probably submit to the people the question of building a municipal plant. Committeeman Dennis may be addressed.

POTTSVILLE, PA.—Bids are asked until Feb. 14 for installing conduits and electric wires for the lighting of the post office. W. B. Howell, Asst. Secy. Treasury Dept., Washington.

FREDERICKSBURG, VA.—An election will be held Feb. 28 to vote on the question of issuing bonds for a plant.

GREENVILLE, S. C.—Edward E. Proctor, Wakefield, Mass., it is stated, has decided to build an extension and to install new machinery at the gas and electric plant, recently purchased by him; estimated cost, \$15,000. We are informed that in two weeks more information can be given.

COLUMBUS, GA.—The Stanley Electric Mfg. Co., Pittsfield, Mass., has been awarded the contract, at about \$60,000, for furnishing and installing the generators for the proposed plant of the Columbus Power Co. G. Gunby Jordan, Treas., Columbus, Ga., may be addressed.

LAKE CHARLES, LA.—The Fred W. Wolf Co., 139 Rees St., Chicago, Ill., is reported to have been awarded the contract by H. B. Milligan and W. D. Stone for a 35-ton ice mucking plant. Messrs. Milligan and Stone have applied for a franchise to operate an electric plant.

GERLEYS, ALA.—J. W. Roberts writes us that he has contracted for a dynamo, etc., to furnish about 300 16-c. p. incandescent lights. He still wants the necessary lamps, etc.

TUSKEGEE, ALA.—Bids are asked until Feb. 15 for furnishing the materials and for constructing the proposed plant and water-works, as described in our advertising columns. Alber & Byrne, Engrs., 1821 2d Ave., Birmingham, Ala.; W. W. Thompson, mayor.

SWEETWATER, TENN.—The aldermen are considering the question of asking Knoxville to furnish this place with 15 2,000-c. p. arc lights.

AKRON, O.—Bids are asked until Feb. 14 for installing a system of conduits and wiring for electric lighting at the post office. W. B. Howell, Asst. Secy. Treasury Dept., Washington.

COSHOCTON, O.—J. M. Ickees, P. M., Newark, O., writes us that plans and specifications for the proposed plant are not yet ready. Estimated cost, \$15,000.

SIDNEY, O.—P. F. Sarvey, Pres. Council, writes us that the proposed plant will have a capacity for 100 2,000-c. p. arc and 5,000 16-c. p. incandescent lights. No further information can be given until about April 1.

DILLSBORO, IND.—R. H. Chance writes us that this place has voted against building a plant.

ALGONAC, MICH.—This place is reported to have voted against issuing \$10,000 in bonds for a plant.

PEARL CITY, ILL.—J. J. Treas, Village Clk., writes us that it has not been decided whether to build a plant. The question will be considered at the meeting of the board of trustees Feb. 6.

WATERTOWN, WIS.—The council has decided to ask for bids for lighting this city for five years. The 10-year franchise of the Watertown Electric Light Co. will expire in May. The question of municipal ownership is being considered.

WINONA, MINN.—The city engineer is preparing plans for a municipal plant.

DES MOINES, IA.—The Des Moines Edison Light Co. has decided to spend about \$300,000 for improvements to its plant. C. H. Fraser, Mgr.

FONDA, IA.—M. G. Coleman, Clk., writes us that at the election Jan. 23 it was voted to build a plant. The council will take further action on the question. Estimated cost, \$5,000. R. F. Beswick, Chn. Com.

MAYVILLE, N. DAK.—The city auditor writes us that

the mayor has been authorized to procure an engineer to prepare plans and specifications for a plant and water-works.

SEATTLE, WASH.—Theron A. Noble, Civil Engr. and Secy., 602 Bailey Bldg., Seattle, has filed a water right on Granite Falls for the proposed power plant for the Seattle Power Co., just incorporated, with a capital stock of \$1,250,000. It is proposed to build a plant at the outlet of Cedar River to furnish about 12,000 HP. E. H. Ammidon, Pres.; John D. Rockefeller, Pres. Standard Oil Co., New York, is said to be interested.

PALO ALTO, CAL.—Marshall Tuesdale is reported to have secured subscriptions to over 500 lights to be furnished by the proposed municipal plant. C. E. Moore, Consult. Engr., Santa Clara, Cal.

ATOTONILCO, JALISCO, MEX.—An electric light plant is to be installed at Atotonilco.

LEON, GUANAJUATO, MEX.—New electric plants are to be built or old ones enlarged in the cities of Leon and Guanajuato; population, 120,000 and 52,000, respectively.

BRIDGES.

SPRINGFIELD, MASS.—A petition will be presented to the legislature to authorize the county commissioners to construct a new bridge over the Connecticut River, at Bridge St.; estimated cost, \$250,000.

NEW HAVEN, CONN.—Bids are asked until Feb. 3 for constructing a pile and timber bridge on Willow St., over Mill River; also for grading the approach from View St. to Mechanic St. C. W. Kelly, Cy. Engr.

ALBANY, N. Y.—The New York Central & Hudson River R. Co. is preparing plans for the construction of a new riveted Pratt truss bridge at Maiden Lane. The contracts will be let in about 50 days, according to reports. W. Katte, Ch Engr.; W. J. Wilgus, Engr. Maintenance of Way, New York.

BINGHAMTON, N. Y.—A contract has been awarded to the Groton Bridge Co., Groton, N. Y., at \$40,000, for constructing a bridge over the Susquehanna River at Tompkins St.

BUFFALO, N. Y.—The board of public works received the following bids Jan. 26 for the masonry work of new bridges at Bailey Ave. and Abbott Road, respectively: E. I. Crooker, \$30,600 and \$21,315; Donnelly Contracting Co., \$45,442 and \$34,943; Geo. Parks & Sons, \$28,205 and \$20,612; W. F. Boyson, \$21,475; and \$16,500; Rumrill & Carter, \$28,377 and \$20,301; Dwyer & Huntington, \$28,216 and \$21,183; Chas. Mosier, \$33,071 and \$25,976.

NIAGARA FALLS, N. Y.—The Niagara Falls Hydraulic Power & Mfg. Co. will construct a bridge over the canal at Main St., to cost \$8,000, for which the city will pay half.

ROCHESTER, N. Y.—Senator Armstrong has introduced a bill appropriating \$75,000 for constructing a new bridge at West Ave. canal crossing.

WATERPORT, N. Y.—The question of constructing an iron highway bridge, estimated cost, \$12,000, over Oak Orchard Creek ravine, at this place, will be voted upon at the town meeting in March, at Carlton, N. Y.

SAVANNAH, GA.—The Georgia & Alabama Ry. Co. will soon let a contract for the construction of a steel draw bridge over the Savannah River, between this city and Hutchinson's Island; estimated cost, \$250,000. J. S. Williams, Pres., Richmond, Va.; C. P. Hammond, Ch. Engr., Savannah.

CLEVELAND, O.—A contract was awarded Jan. 26 to the King Bridge Co., at \$4,855, for constructing a temporary span of the Willson Ave. bridge.

HAMILTON, O.—Bids are asked by the county commissioners until Feb. 24 for constructing the High and Main St. bridge. The contract with the Toledo Bridge Co. has been repealed. L. A. Dillon, County Engr., and the Osborn Engineering Co., are preparing the plans.

SHELBYVILLE, IND.—The county commissioners have awarded a contract to Price Bros., Shelbyville, for the stone work of six bridges.

DETROIT, MICH.—The proposed bridge over the Detroit River will consist of one cantilever span 1,250 ft., a 1,000-ft. trestle and 1,000-ft. through girders, carrying three tracks. The location will be determined by U. S. engineers. The site suggested is three-fourths of a mile west of Belle Isle. Height over main channel, about 120 ft. This is a proposed railway bridge to do away with ferries, and to accommodate any and all railways entering Detroit. The city also contemplates having the piers on the U. S. States side of the river long enough to admit of a low level bridge with swing span to middle ground, to be used for bicentenary purposes. No plans have yet been made.

SAGINAW, MICH.—It is reported that a contract will soon be let by the Saginaw Valley Traction Co. for the construction of a new bridge at Bristol St. The old structure is now being torn down.

QUINCY, ILL.—The council has resolved to construct a stone bridge across Curtis Creek on Eighth St., and a pontoon bridge across the bay at the foot of Broadway.

ROCKFORD, ILL.—Bids are asked until Feb. 20 for constructing a plate girder bridge over Keith creek at Seventh St., as stated in our advertising columns. Edwin Main, Cy. Engr.

MINNEAPOLIS, MINN.—The Great Northern Ry. Co. will repair the substructure of the Hennepin Ave. viaduct.

ARCADIA, NEB.—Bids are asked until Feb. 9 for constructing an iron bridge 280 ft. long over the Middle Loup River, according to reports. Vincent Kokes, County Clk., Ord, Neb.

DAVID CITY, NEB.—Bids are asked until Feb. 6 for constructing iron bridges for the year 1899, according to reports. John J. Graham, County Clk.

HELENA, ARK.—Bids are asked until Feb. 15 for furnishing steel for three bridges, according to reports. Thos. M. Jacks, Cy. Engr.

SENECA, KAN.—Bids are asked until Feb. 15 for constructing two iron bridges, according to reports. A. G. Sanborn, County Clk.

MONTICELLO, MO.—Bids are asked by the county commissioners until Feb. 27 for constructing two iron bridges of about 100-ft. span each. Geo. H. Roberts, Comr.

LEXINGTON, OKLA.—The Lexington & Purcell Bridge Co. has been incorporated to construct a bridge over the South Canadian River, between Lexington and Purcell, Ind. Ter.; capital stock, \$15,000; directors: B. Weltzen-effer, Frank P. Cease and Nathan Turk of Lexington; C. G. Jones, of Oklahoma City; Joseph A. Farris, J. F. Sharp and J. W. Hoeker, of Purcell, Ind. Ter.

COLORADO SPRINGS, COLO.—A petition has been presented to the council for a new bridge over Monument Creek. I. S. Harris, Cy. Clk., informs us that no action has been taken.

WALMER, ONT.—Bids are asked until Feb. 10 for constructing the stone abutments and steel superstructure of a bridge 70 ft. long over the Thames River, near Cassel, in East Zorra township. Address Thomas Lockart, Walmer.

BUILDINGS.

LIMERICK, ME.—It is reported that the building occupied by Ira Libby & Sons, and adjacent buildings, were destroyed by fire, Jan. 27; loss, about \$25,000.

NEW HAVEN, CONN.—L. W. Robinson, Arch., 324 Exchange Bldg., New Haven, informs us that the following bids were received by the city, Jan. 19, for a heating apparatus for the hospital buildings at Springside Farm: King & Ballou, 192 State St., \$765; H. H. Guernsey, 6 Church St., \$860; Sheahan & Grosark, 285 State St., \$875; Daniel F. Kelly, 161 George St., \$1,083.

BROOKLYN, N. Y.—J. J. Horan & Co., 225 River St., Troy, N. Y., have been awarded the contract for the installation of a heating and ventilating apparatus in the two new wings and other additions to be built for the Kings County Hospital in this borough.

LYNBROOK (L. I.), N. Y.—A new 3-story frame bicycle club house, to cost about \$45,000, is to be erected at this place by the Wheelmen's Club. Delhi & Howard, Archs., 1133 Broadway, New York.

NEW YORK, N. Y.—A fire in this city Jan. 29, damaged the 2-story building at 1375 to 1385 Broadway, causing a reported loss of \$30,000.—Plans have been filed by H. M. Weed, 57 West 95th St., for a 7-story brick flat building at 105th St. and West End Ave., to cost \$140,000. James & Leo, Archs., 957 Boulevard; by Cornelia B. Drew, 306 East 123d St., for a 6-story brick tenement building at 304 and 306 East 123d St., to cost \$90,000. G. J. Brown, Jr., Arch., 251 West 125th St.; by Jacob Fischel, 197 Henry St., for a 6-story brick flat and store building at 70 to 74 Pike St., to cost \$50,000. Horenburger & Straub, Archs.; by Miss Della Stevens, 147 West 96th St., for thirteen 4-story brick dwellings at 142d St. and Convent Ave., to cost \$208,000. G. W. Spitzer, Arch., 156 5th Ave.; by J. M. & W. B. Stewart, 131 Columbus Ave., for a 9-story brick and stone flat building at 84th St. and Riverside Drive, to cost \$180,000. George Keister, Arch., 140 West 34th St.; by Alonzo B. Kight, Arch. and Builder, 102 West 81st St., for six 5-story brick dwellings at 313 to 323 West 83d St., to cost \$114,000; by Ragatz & Wolf, 2662 3d Ave., for four 5-story brick flat buildings on 144th St., near 3d Ave., to cost \$96,000. Edward Wenz, Arch., 2577 3d Ave.

NEW YORK, N. Y.—Bids are asked by the board of education, at 585 Broadway, until Feb. 14, for erecting a new school building at Market and Monroe Sts., to be known as Public School 177; also until Feb. 6 for heating and ventilating the extension to Erasmus Hall High School, Borough of Brooklyn; also for alterations, repairs, etc., at Public School 7, Borough of Queens, and Public School 20, Borough of Richmond; also for the sale of old iron, etc., in the storehouse, Manhattan.

ROCHESTER, N. Y.—W. Foster Kelly is said to be preparing plans for a new public bath house to be built in this city.

TROY, N. Y.—L. H. Crowley, proprietor of the Mansion House, informs us that at present he is simply getting the approximate cost of a new hotel building to replace the present Mansion House. No plans have yet been adopted.

BELLEFONTAINE, PA.—Andrew Carnegie, of Pittsburg, has offered to give \$100,000 for a library building for the State College at Bellefonte, provided that the state will make an annual appropriation of \$10,000 for its maintenance.

JOHNSTOWN, PA.—The Waters Bldg. and the Toner Libr. Bldg. were destroyed by fire Jan. 25, causing a reported loss of \$90,000.

PHILADELPHIA, PA.—Bids are asked until Feb. 18 for the construction of a workshop and boiler house for ordnance at the navy yard, League Island, Philadelphia. M. T. Endicott, Ch. of Bureau of Yards and Docks, Washington, D. C.—Bids are asked by the board of education, at 513 Filbert St., until Feb. 7, for the erection of a 15-division school building at 10th and Porter Sts.; the erection of a 15-division school building at Ontario and G Sts.; an addition to the Wharton School Bldg., 2d Section; the erection of new wings to the Blaine School, 30th and Norris Sts.; for tearing down buildings and repairs to the northeast grammar school building; for alterations to the third story of the Martha Washington School Bldg.

A. P. Hammond, Secy.—Preliminary plans have been prepared for the proposed hospital buildings for the Woman's Health Protective Association. Joseph M. Huston, Arch., Provident Bldg.—The following bids have been received by Director of Public Safety Riter for a new fire station at 31st St. and Gray's Ferry Road: Doyle & Doak, \$19,497; Macey, Henderson & Co. \$17,949; Thomas Gamm, \$22,984; W. R. Dougherty, \$19,700; H. C. Nichols Co., \$19,315; Thomas M. Seeds, Jr., \$16,883; John R. Wiggins, \$18,700; Phillips, Anne Co., \$22,512; W. J. Smett, \$22,900; J. A. Davis, \$17,500; G. C. Dietrich, \$21,925; Thomas Reed & Co., \$17,700; H. B. Shoemaker & Co., \$19,000; also for a building at Adams and Jasper Sts.: Doyle & Doak, \$16,741; Phillips, Anne Co., \$16,123; W. L. Dougherty, \$15,615; H. C. Nichols Co., \$16,836; Thomas M. Seeds, Jr., \$14,038; H. B. Shoemaker, \$15,500; Macey, Henderson & Co., \$15,850.

PHILADELPHIA, PA.—Bids are asked until Feb. 7 for the following items: Iron work, stone work, incidental stone work and repairs, bronze work, copper work, carpenter and mill work, combination fixtures, tiling, plastering, mackite blocks, ready mixed mortar, sand and gravel cement, hard bricks, enameled, pressed and fire bricks, fire clay, hollow bricks, hollow partition blocks and floor arches, steam fitting and plumbing supplies, electric supplies, hardware and carpenters' supplies, brushes, paints, lumber, repairs, etc.; asphalt floors and roofs, boilers, engines, dynamos and pumps, hauling ashes and rubbish, uniforms and overcoats, coal, and for the furniture, etc., for the board of education. Samuel C. Perkins, Pres.

PITTSBURG, PA.—Bids are asked until Feb. 8 for erecting engine house No. 29 at Hamilton and Braddock Aves. J. O. Brown, Dir. of Public Safety.—Plans are being completed for the new 8-story station to be erected near the Smithfield St. bridge for the Pittsburgh & Lake Erie R. Co. Work is to be completed before April 1, 1900.—Fire partially destroyed the 6-story building at 918 to 920 Penn Ave., causing a loss of about \$100,000. Two of the largest tenants were Spear & Co., furniture, and the New York Biscuit Co. G. S. Sinden, owner.

WASHINGTON, D. C.—F. B. Pyle, Washington Loan & Trust Bldg., has prepared plans for a new central police station, to cost about \$50,000. A bill will be introduced into Congress asking for the erection of such a structure at E and 12th Sts.—The bill providing for the erection of a new department of justice building at Pennsylvania Ave. and Lafayette Place, at a cost of \$1,000,000, has been passed by the Senate.

BALTIMORE, MD.—Plans are being prepared for a new 11-story addition to the Equitable Bldg., at Fayette and St. Paul Sts., for the Calvert Building and Construction Co. Wm. H. Whitridge, Pres.; J. Evans Sperry, Arch.

WILMINGTON, N. C.—The contract will be let about Feb. 20, according to reports, for erecting a new masonic temple for the Masonic Temple Co., to cost about \$30,000. Charles McMillan, Arch.

LAFAYETTE, ALA.—Phil Yeager & Co., Atlanta, Ga., and Danville, Ill., have received the contract for erecting the new court house, at \$27,650.

NEW ORLEANS, LA.—Edwin Marks, Secy. Bd. of Administration, informs us that all the bids received for the erection of the Wm. T. Richards memorial hospital building, Jan. 23, were rejected, as they ranged from \$71,000 to \$90,000, thus exceeding the appropriation.—Plans are being prepared by A. C. Bell, Cy. Engr., for the new police jail building, 108 x 105 ft., to be fireproof throughout.

HOLLY SPRINGS, MISS.—We are informed that St. Thomas Hall, recently burned, will be rebuilt at a cost of about \$25,000. Address Rev. P. G. Sears.

LEXINGTON, KY.—We are informed that the following bids were received by the trustees of the Kentucky House of Reform: 11 Cheapside, Lexington, Jan. 17, for the erection of a brick boiler house and manual training building on the State farm: (a) for excavation, (b) stone work (c) cement work, (d) brick work, (e) painting and glazing, (f) roofing, (g) woodwork, (h) ironwork: Clark & Howard, Lexington (accepted), (a) \$490, (b) \$3,335, (c) \$1,400, (d) \$11,770, (e) \$450, (f) \$1,450, (g) \$8,000, (h) \$2,330, total, \$27,955; J. W. & P. H. Hendricks, Lexington, (a) \$600, (b) \$3,900, (c) \$2,485, (d) \$11,500, (e) \$35, (f) \$1,568, (g) \$5,598, (h) \$1,800, total, \$28,046; Geo. M. Schneider, Columbus, O., (a) \$1,008, (b) \$3,205, (c) \$1,988, (d) \$12,727, (e) \$750, (f) \$1,846, (g) \$5,814, (h) \$2,484, total, \$29,808; Coyle & Combs, Lexington, (a) \$620, (b) \$3,280, (c) \$1,630, (d) \$11,577, (e) \$1,000, (f) \$1,685, (g) \$8,125, (h) \$2,500, total, \$30,482; Smith & Vandye, Lexington, (a) \$600, (b) \$3,900, (c) \$2,485, (d) \$11,500, (e) \$35, (f) \$1,568, (g) \$5,598, (h) \$1,800, total, \$28,046; C. M. Pullen & Co., Lexington, (a) \$1,400, (b) \$3,335, (c) \$1,400, (d) \$11,770, (e) \$450, (f) \$1,450, (g) \$8,000, (h) \$2,330, total, \$27,955; J. W. & P. H. Hendricks, Lexington, (a) \$600, (b) \$3,900, (c) \$2,485, (d) \$11,500, (e) \$35, (f) \$1,568, (g) \$5,598, (h) \$1,800, total, \$28,046; F. Bush & Son, Lexington, (g) \$5,118; Walton Iron Co., Cincinnati, O., (h) \$2,617.

ELWOOD, IND.—The council has decided to erect a new city hall building, to cost about \$28,000.

INDIANAPOLIS, IND.—It is reported that plans have been prepared for a new synagog building for the Hebrew Association, to cost \$30,000. Vonnegut & Bohn, Archs., 608 Indiana Trust Bldg.

ANN ARBOR, MICH.—S. W. Millard, Clk. Bd. of Supervisors, informs us that bids are asked until Feb. 18 for erecting a brick addition to the county jail; estimated cost, \$800. Fireproof vault in the court house are also proposed. Henry Pipp, Arch., Ann Arbor.

IRONWOOD, MICH.—Bids are asked until Feb. 15 for erecting a high school building at Ironwood. A. D. Garner, Dir. of Pub. Schools; Charlot, Gilbert & Demar, Archs., Camp Bldg., Milwaukee, Wis.

ST. PETER, MICH.—Bids are asked until Feb. 20 for constructing a steam plant in the church of the Immaculate Conception. Rev. Anton Miks, Pastor.

LYONS, ILL.—This township voted, Jan. 21, to authorize the issuance of \$35,000 in bonds for an addition to the high school building.

ALGONA, IA.—Bids are asked until Feb. 11 for the erection of an 8-room high school building; also for a steam heating plant. C. M. Dorse, Secy.; Smith & Guterson, Archs., Des Moines, Ia.

MADISON, MINN.—The question of issuing \$30,000 in bonds for a new court house will probably be voted upon on March 14.

MILWAUKEE, WIS.—Bids are asked by the supervisors of Milwaukee county, until Feb. 11, for remodeling the court house. E. R. Liebert, Arch.

WINFIELD, KAN.—The erection of an additional building for the imbecile asylum at Winfield, to cost \$200,000, is projected.

FLANDREAU, S. DAK.—Bids are asked by the department of Indian affairs, Washington, D. C., until Feb. 23 for the construction of one brick school assembly building at the Indian School at Flandreau. W. A. Jones, Comr.

KANSAS CITY, MO.—Bids are asked by the supervising architect, Washington, D. C., until Feb. 23, for fixing in place the boiler plant, low pressure and exhaust steam heating and mechanical ventilating apparatus, supply pumps and tanks for water supply, etc., and pipe and duct covering for the post office building in this city, as stated in our advertising columns.

ST. LOUIS, MO.—Bids are asked by the board of education, 9th and Locust Sts., until Feb. 11, for heating and ventilating apparatus for the Simmons, Rock Springs and Jackson school buildings. B. Ittner, Comr.

SAN ANTONIO, TEX.—Bids are asked until Feb. 9 for the erection of a 5-story iron and terra cotta fireproof building for the San Antonio Loan & Trust Co.; estimated cost, about \$200,000, the fireproofing costing about \$7,000. Alfred Giles, Arch., 114 West Houston St., San Antonio.

PHOENIX, ARIZ.—The following bids were received Jan. 25 for constructing a brick dormitory, and a water sewer system, at the U. S. Indian School at Phoenix: J. B. Sprague, Phoenix, dormitory, \$14,600; Pugh & Gray, Phoenix dormitory, \$14,690; Parker & Barry, Phoenix, 50-HP. engine, \$13,488; 100-HP. engine, \$13,988; Scoville Plumbing Co., Phoenix, 50-HP. engine, \$13,249; 100-HP. engine, \$13,709.

WATER-WORKS.

FRANKLIN, MASS.—The property of the Franklin Water Co. has been sold to Jos. G. Ray, Pres., for about \$100,000, according to reports.

WALTHAM, MASS.—L. Brown, Supt. Water-Wks. Dept., informs us that no steps have been taken to improve the works, other than a recommendation from the water department that a higher reservoir will be needed in the near future.

WATERTOWN, MASS.—A transaction has been completed by which the town becomes the owner of the works of the Watertown Water Supply Co. for about \$400,000. About eighteen months ago a committee, consisting of Dr. B. F. Davenport, H. F. Bent, Samuel Walker, C. D. Crawford and W. H. Keith was given full powers by the town to acquire the works, since which time the Metropolitan water has come into use and the plant of the company been abandoned. A town meeting will be held Feb. 2 to consider the question of raising the necessary funds.

WORCESTER, MASS.—The committee is reported as in favor of the construction of a new gate house, etc., for the works, besides the extension of certain mains.

FAIRPORT, CONN.—The Unquowa Water & Light Co. has been organized, with a capital stock of \$100,000, by Oliver T. Sherwood, Southport, Conn.; E. W. S. Pickett, of Fairfield, and others. Mr. Pickett writes us that plans for works and an electric plant will be prepared at once after the charter is granted.

ARCADE, N. Y.—G. N. Cowan, Pres. Cattsraugus & Wyoming Water Supply Co., writes us that Fred. S. Bates, representing the Rensselaer Mfg. Co., Troy, N. Y., has secured the contract for gates and hydrants for the proposed works, at about \$1,000; they to be delivered April 1.

CLAYTON, N. Y.—Bids are asked until April 4 for furnishing the materials and for constructing the proposed works and sewerage system; estimated cost, \$50,000. Sidney S. Snell, Engr., Lowville, N. Y.

SOUTHFIELD (S. I.), N. Y.—J. B. Newhall, Gen. Mgr. Crystal Water Co., on Staten Island, 168 Bay St., Edgewater, S. I., has purchased the franchise and property of the South Shore Water Co., located in Southfield, and took possession Feb. 1. It is proposed to make many needed improvements to provide for this rapidly growing district.

WEST ONEONTA, N. Y.—It is stated that a company is being organized to build works for this place. An artesian well will be sunk and a windmill erected.

COLUMBUS, N. J.—C. L. Carslake writes us that efforts are being made to form a stock company to build works, about two-thirds of the stock being subscribed. The water supply will be secured from artesian wells.

HAMMONTON, N. J.—The Hammonton Water Co., organized by Ezra C. Bell, John H. Bell, Merritt W. Pharo, F. B. Lott and Jos. W. Pharo, of Philadelphia, has applied for a franchise. Capital stock, \$50,000. Alex. H. Sutton, Pres. Council.

CANONSBURG, PA.—The Chartiers Valley Water Co., Chartiers, Pa., proposes to extend its mains to this place, Marshalsea and Morganza.

PHILADELPHIA, PA.—Local papers state that the select council has passed the ordinance reported by the water committee, authorizing the director of public safety to advertise for bids for the construction of a new pumping station, with a sedimentation basin and filtration beds, and a daily capacity of 150,000,000 gallons, to be located on the Delaware River, above Lardner's Point.

GOLDSBORO, N. C.—The Goldsboro Water Supply Co. has been incorporated in Maine, with a capital stock of \$200,000, of which \$200 is paid in. Jas. C. Fox, Pres., Portland, Me.; Harry M. Merrill, Portland. The Goldsboro Water Co. has works in operation built in 1889.

REIDSVILLE, N. C.—The legislature has granted this town permission to issue \$25,000 in bonds for the proposed works, plans for which were prepared last year by Prof. H. E. Knox, Jr., Charlotte, N. C.; A. J. Ellington and J. B. Johnson may be addressed.

ROCKY MOUNT, N. C.—J. C. Braswell, Cy. Clk., writes us that after the general assembly grants the town authority to build works, the question of issuing \$40,000 in bonds will have to be voted upon by the people. Population, 2,500.

TUSKEGEE, ALA.—Bids are asked until Feb. 15 for furnishing the materials and for constructing the works and a light plant, as described in our advertising columns. Aiber & Byrne, Engrs., 1821 Second Ave., Birmingham, Ala.; W. W. Thompson, Mayor.

GULFPORT, MISS.—The Gulfport Water Co. has been incorporated, with a capital stock of \$25,000, by S. S. Bullis, Pres.; J. H. Lang, Secy.; Chas. Kohler, Treas., and others.

CHATTANOOGA, TENN.—P. J. Lynch, Secy. Com., writes us that the bill to build municipal works has passed the council and was, on Jan. 26, presented to the legislature. It is proposed to issue \$650,000 in bonds for the works, the question first having to be submitted to a vote of the people. The source of the new water supply is about 63 miles distant. J. J. Brown, Chm. Com.

BEREA, O.—We are informed that the water trustees have engaged L. E. Chapin, Canton, O., to prepare plans for the proposed works. The new supply will be secured from wells. Estimated cost, \$30,000. T. J. Quayle, Mayor; Dr. D. T. Gould, Pres. Bd. Trustees.

CLEVELAND, O.—Bids are asked until Feb. 24 for furnishing about 2,200 stop cock boxes, 200 4-in. and 20 6-in. hydrants, and about 2,300 ½ to 1-in. stop cocks, 2,25 ½ to 1-in. corporation cocks, stop gates, air valves, multiple connections, etc. Geo. R. Warden, Dir. Pub. Wks.

CLEVELAND, O.—Henry R. Worthington, New York, submitted the only bid, at \$11,000, for repairing the Worthington pump at the Division St. pumping station.

MARION, O.—The question of purchasing a 5,000,000-gallon pump and increasing the water supply are being considered.

CLINTON, IND.—The question of constructing works is being considered, according to reports.

GOSHEN, IND.—H. H. Hallett, Warsaw, Ind., is reported to have been awarded the contract for laying about five miles of new mains.

GRAND RAPIDS, MICH.—City Engineer Ames has completed surveys, etc., for securing data for a purer water supply.

LUDINGTON, MICH.—The question of the municipal ownership of the works and electric light plant is being considered. Both plants, it is stated, can be built for \$70,000.

TRAVERSE CITY, MICH.—W. W. Smith, Mayor, writes us that bids for building the new works will probably be asked in the spring or summer. The source of supply will be the east arm of the bay off Lake Michigan. Estimated cost, \$120,000. Geo. W. Rafter, Engr., Rochester, N. Y.; H. F. Northrup, Cy. Engr.

WEST BAY CITY, MICH.—The city surveyor has submitted a report and estimates for 3,800 ft. of 48-in. riveted steel pipe, 13,500 ft. of 30-in. iron pipe, a suction well, etc., for the proposed improvements to the works; estimated cost, \$60,000. Mayor Lind, Aldermen Grant, Wharton and Fox may be addressed.

FRANKLIN, ILL.—The question of building works is being agitated.

JEFFERSON, WIS.—Julius Fox, Supt. Water-Wks. at Watertown, Wis., is reported as preparing plans for a standpipe, etc., at the county insane asylum.

KENOSHA, WIS.—The committee has recommended that the council install a system of filtration at the works.

WEST SUPERIOR, WIS.—W. H. Winslow, Secy. Superior Water, Light & Power Co., writes us that R. S. Weston, 21 Wyman St., Brockton, Mass., has completed a series of tests on two types of filters, and is now preparing his report. He will confer this week with Allen Hazen, St. Paul, Minn., New York, who is consulting engineer for the company. Although nothing will be decided upon until Mr. Hazen's recommendations are received, it is believed that mechanical filtration will be adopted. W. R. Merriam, Pres.

ATLANTIC, IA.—An election will be held Feb. 2 to vote on the question of municipal works.

BRISTOW, IA.—The question of building works is being considered.

CASTANA, IA.—The question of building works is being considered.

WAVELEY, IA.—Bids are asked until Feb. 7 for sinking an artesian well for an increased water supply. D. A. Long, Clk.

CANBY, MINN.—The Mankato Heating & Plumbing Co., Mankato, Minn., has been awarded the contract for building the works for this place at \$6,389. It is probable that the contract for building the tower will also be let to this company, at \$2,784, as the lowest bidder, E. T. Webster, Dubuque, Ia., at \$2,600, does not want the contract for the tower alone.

DULUTH, MINN.—Alderman J. H. Crowley writes us that no election will be held Feb. 7 to vote on the question of issuing \$150,000 in bonds for extending the mains.

MINNEAPOLIS, MINN.—Bids are asked until Feb. 10 for furnishing the city with 30 tons of special castings, 30 tons of pig lead, 363 tons of 6-in. cast-iron water pipe, 123 tons of 8-in. pipe, 49 tons of 12-in. pipe, 45 hydrants, etc. L. A. Lydriard, Cy. Clk.; G. W. Sublette, Cy. Engr.

OWATONNA, MINN.—M. B. Pratt, Supt. Water-Wks., writes us that the council is considering the question of increasing the water supply. Nothing has yet been decided upon. Population, 6,000.

GIRARD, KAN.—The question of improving the works and of putting in an additional pump is being considered. Councilman Hitch may be addressed.

FORT MEADE, S. DAK.—Bids are asked until Feb. 18 for sinking an artesian well at Fort Meade. J. T. French, Jr., Acting Ch. Q.-M., Dept. of Dakota, St. Paul, Minn.

MAYVILLE, N. DAK.—The city auditor writes us that the mayor has been authorized to engage an engineer to prepare plans and specifications for works and an electric plant.

HASTINGS, NEB.—Bids are asked until Feb. 13 for furnishing about 30,000 ft. of 4 and 6-in. cast-iron water pipe and 37 4 to 10-in. gate valves, according to reports. E. A. Francis, Cy. Clk.

ST. CHARLES, MO.—The question of granting a new franchise to the St. Charles Water & Heating Co. is being considered. The present franchise expires about 1901. An increased water supply is wanted.

ST. JOSEPH, MO.—The council is reported to have granted a 20-year franchise for works to Judge R. F. Culver, who represents Eastern capitalists who propose to build works to cost about \$1,000,000. The works must be completed by Dec. 10. A report states that the Seckner Contracting Co., Chicago, has been awarded the contract at about \$800,000.

ST. LOUIS, MO.—Bids are asked until 12 m., Feb. 3, for furnishing a water filtering plant for the Female Hospital; deposit, \$75. Robt. E. McMath, Pres. Bd. Pub. Improvements.

MONTICELLO, ARK.—Letter bids are being received by Walter G. Kirkpatrick, Jackson, Miss., for furnishing a half mile of 8-in. pipe, a 500,000-gallon pump, eight hydrants, steel tank and tower.

DENVER, COLO.—It is stated that work on the construction of what is known as the Goose Creek dam has been commenced and within a year the Denver Union Water Co. will have acquired another reservoir for the storage of water for use in this city. The site of the dam is at the junction of Goose Creek and the South Park, 13 miles from Buffalo Park on the Colorado & Southern R. R. The height of the dam will be 160 ft. The cost will be about \$500,000.

FLORENCE, COLO.—The Geddes & Scerle Stone Co., Denver, Colo., has been awarded the contract for constructing the proposed works, at \$110,000, as advertised in Engineering News.

TACOMA, WASH.—Water Commissioner Hacker has filed claims for water rights on creeks flowing from Maplewood Springs for an increased water supply.

OREGON CITY, ORE.—T. L. Charman, Secy. Comrs., writes us that the board has been empowered to spend about \$40,000 for securing a new water supply from the Clackamas River, three miles north of the present pumping station, in preference to using Willamette River water. Nothing definite will be known on the subject for some months.

DUARTE, CAL.—The West Duarte Water & Development Co. has been incorporated, with a capital stock of \$7,200, of which \$3,600 is paid in, by John Scott, W. Chippendale and W. H. Young.

SANTA BARBARA, CAL.—It is stated that the council will probably ask for new bids for drilling 500 ft. additional to the water tunnel. The bids opened Jan. 21 ranged from \$5.25 to \$11.75 a ft.

PHOENIX, ARIZ.—This city defeated the proposition, Jan. 24, to issue \$265,000 in bonds for new works and a sewerage system, by a vote of 140 for to 193 against. Ernest Abs Hagen, Engr., Los Angeles, Cal.

BERLIN, ONT.—The water commissioners have asked the superintendent of water-works for a report on the question of an increased water supply.

OSHAWA, ONT.—This place has voted to issue \$110,000 for the proposed works and sewerage system, bids for which were received Jan. 5. John Galt, Engr., Ottawa, Ont.; C. French, Chm. Com.

MONTREY, MEX.—Arrangements are being made by J. A. Robertson for the immediate construction of the proposed works, to cost about \$1,500,000. Benozette Williams, Engr., 153 La Salle St., Chicago, Ill.; E. L. Brewster & Co., 207 La Salle St., Chicago, are interested.

BILBAO, SPAIN.—Bids are asked by the Ayuntamiento until March 1 for furnishing pumps, engines, boilers, etc., for the works at Zorozaema, according to reports.

SEWERAGE.

CAMBRIDGE, MASS.—Local papers state that the question of building new sewers, at a cost of about \$400,000, is being considered.

SALEM, MASS.—The council has voted to extend certain sewers, at a cost of about \$30,000.

WAKEFIELD, MASS.—The question of building the proposed system will be considered at a town meeting Feb. 8.

WOONSOCKET, R. I.—Bids are asked until March 6 for constructing section No. 4 of the system, as described in our advertising columns. F. E. Holden, Geo. S. Read and Philippe Boucher form the board of commissioners.

BRIDGEPORT, CONN.—It is proposed to improve the sewers in a number of streets. City Engineer Schofield has recommended the construction of storm sewers and about 200 manholes; estimated cost, \$60,000. Councilman Osborn, Chm. Com.

BUFFALO, N. Y.—The aldermen have ordered the construction of 64 to 83-in. brick and 24 to 10-in. pipe sewers in two streets.

CLAYTON, N. Y.—Bids are asked until April 4 for constructing a system and water-works estimated to cost about \$50,000. Sidney S. Snell, Engr., Lowville, N. Y.

LITTLE FALLS, N. Y.—Geo. W. Van Vranken, Schenectady, N. Y., has been awarded the contract for building sewers in the south side, at \$17,870, according to reports. The only other bid was received from Halliman Bros. & Fenton, Little Falls, at \$22,396.

NIAGARA FALLS, N. Y.—The Cataract Construction Co. has awarded W. H. Cookman the contract to lay water and sewer pipe to the grounds where the Union Carbide Co. is about to erect its factory. The contract calls for nearly one mile of 6-in. water main and 1½ miles of sewer pipe, to be completed in 45 days.

PLATTSBURG, N. Y.—H. K. Averill, Civil Engr., writes us that at the election in February the people will vote on the question of building certain sewers, etc.

SYRACUSE, N. Y.—Alderman Kearney is reported as urging the straightening of the outlet to Harbor Brook so as to provide for the new sewerage of the southern part of the 9th ward; estimated cost, about \$131,000. R. R. Stuart, Cy. Engr., writes us that a preliminary examination is being made.

JERSEY CITY, N. J.—Chas. A. Van Keuren, Ch. Engr., is preparing plans for a new trunk sewer in the McAdoo Ave. section. The sewer will empty into Newark Bay.

LONG BRANCH, N. J.—The Long Branch Sewer Co. is preparing to lay a 12-in. submerged sewer pipe 150 ft. into the sewer that is the present outlet. R. C. Adamson, Supt.

DUNMORE, PA.—M. S. Knight, Borough Engr., writes us that the borough is contemplating the construction of a system covering an area of about 850 acres and taking about 25 miles of sewer pipe and one mile of brick sewer. The plans and details of the trunk sewer are already finished. The borough has at present only one district of 66 acres sewered. The bonding of the borough for its proportion of the cost of the sewer is to be voted on at the spring elections. Population, 15,000.

NORFOLK, VA.—W. H. Werling, Secy. Local Bd. Improvement of Brambleton Ward, writes us that bids will soon be asked for constructing the proposed system in Brambleton.

WINCHESTER, VA.—Robt. L. Gray, Chm. St. Com., writes us that the committee has been instructed by the council to ascertain the cost of a system for this city. No report has yet been submitted, owing to lack of information.

CLARKSBURG, W. VA.—C. O. Findlay, Cy. Engr., is preparing plans and estimates for a system. The question of building will probably be submitted to a vote of the people at the election in April.

CLEVELAND, O.—Bids are asked until Feb. 9 for constructing sewer and water connections in a number of streets. Geo. R. Warden, Dir. Pub. Wks.

FORT WAYNE, IND.—Arrangements are being made by the council for the proposed intercepting sewer, to cost about \$150,000.

HOWELL, MICH.—H. E. Riggs, of Riggs & Sherman, 613 The Nashy, Toledo, O., has submitted a report recommending the adoption of the separate system and sewage purification by intermittent filtration alone or in connection with irrigation.

CHICAGO, ILL.—It is proposed to have plans prepared at once for extending the intercepting sewer system to include the district between 73d and 87th Sts. L. E. McGann, Comr. Pub. Wks.

OTTUMWA, IA.—City Engineer Brady is reported as preparing plans for sewers for the South Side and West End. Trunk sewers will be built in both districts.

SIOUX CITY, IA.—J. M. Lewis, Cy. Engr., is preparing plans for sewers for Smith's Villa, to cost about \$3,000.

ST. PAUL, MINN.—L. W. Rundlett, Cy. Engr., has submitted plans for sewers in Hamline, to cost about \$34,800. Plans for other sewers are being prepared.

WASECA, MINN.—The question of building a system here is being considered, according to reports.

TOPEKA, KAN.—Local papers state that work will soon be begun on the proposed north Topeka sewer.

INDEPENDENCE, MO.—The council will soon ask for bids for the construction of the proposed system. Andrew Rosewater, Engr., Bee Bldg., Omaha, Neb.

DENVER, COLO.—Jas. J. Fleetwood, Denver, has been awarded the contract for constructing the Capitol Hill sewer at \$244,159. A letter has been received by the board of public works from Mr. Fleetwood asking the privilege of withdrawing his bid, as a mistake was made in making it up. The next lowest bid was from the J. M. O'Rourke Construction Co., at \$309,755.

SEATTLE, WASH.—Plans are being prepared by the city engineer for sewers in certain parts of the streets to cost about \$100,000. Bids for the construction of some of the sewers will soon be asked.

GRASS VALLEY, CAL.—Bids are asked until Feb. 14 for the purchase of \$40,000 of 7% sewer bonds. W. D. Harris, Cy. Clk.

OAKLAND, CAL.—The following bids were received by the council Jan. 17 for constructing the Cemetery Creek outlet sewer: Wm. Healy, \$9,279; Easton & Wilson, \$7,426; Cotton Bros., \$6,293; E. Cavanaugh, \$7,774; J. H. Belsel, \$5,722; W. J. Schmidt, \$9,294; John Geary, \$5,795; A. C. Matting, \$5,167.

PHOENIX, ARIZ.—We are informed that this city, by a vote of 140 for and 193 against, rejected the proposition Jan. 24 to issue \$265,000 in bonds for a system and water-works. Ernest Abs Hagen, Engr., Los Angeles, Cal.—Percy Scerle has been awarded the contract, at \$13,700, for constructing sewers and water-works at the U. S. Indian school about 3½ miles from here.

BRIDGEWATER, N. S.—The mayor is urging the construction of a system.

GUELPH, ONT.—A committee has been appointed to investigate the question of building a system.

HAMILTON, ONT.—The committee has decided to ask for an appropriation of \$30,000 for sewers, \$20,000 of which will be used for the proposed Birch Ave. sewer. Bids will soon be asked, it is stated, for the sale of the sludge from the Ferguson Ave. sewage disposal works. City Engineer Barrow has recommended the construction of an incinerator at the beds, and also the construction of new beds.

GARBAGE DISPOSAL—STREET CLEANING

NEW YORK, N. Y.—Bids are asked until Feb. 8 for cleaning the receiving basins in Manhattan and in Brooklyn. Jas. Kane, Comr. of Sewers, 265 Broadway, N. Y.

ROCHESTER, N. Y.—The board of health will probably soon ask for new bids for the collection and disposition of the garbage.

CAMDEN, N. J.—The council is considering the question of granting a franchise to B. F. Howland & Co. to operate a plant to cost about \$25,000.

NOIRPOLK, VA.—W. H. Werling, Secy. Local Bd. of Brambleton Ward, writes us that the garbage contract is a small one, covering only one ward, and will be let to local bidders.

NASHVILLE, TENN.—The question of the city's building a garbage disposal plant is being considered by the council.

CHICAGO, ILL.—Bids for garbage disposal for the entire city were received Jan. 24 from Patrick Mulcaire and Henry McDonald at \$428,000 to \$768,000, and from \$540,000 to \$625,000, according to specifications, respectively. R. B. Mitchell, Pres. Thackery Incineration & Fertilizing Co., San Francisco, bid \$538,025 for the entire city on specification 1 and \$526,007 on specification 2. Bids were asked on four specifications for the four districts and on the entire city.

LOS ANGELES, CAL.—Plans for a crematory have been submitted by the Merchants and Manufacturers' Association.

HAMILTON, ONT.—City Engineer Barrow has recommended the construction of an incinerating plant at the garbage disposal plant.

MEXICO, MEX.—Our correspondent informs us that street sprinklers are in great demand in all the principal cities of this republic.

STREETS AND ROADS

DEDHAM, MASS.—David Neal, representing the district of Dedham, Norwood and Westwood, will present a petition to the legislature for a road to connect East Dedham and Stony Brook.

HARTFORD, CONN.—The street commissioners propose to pave Windsor Ave., between the tunnel and Sumfield St. and Gold St., with asphalt, from Main to Wells Sts.

DELMAR, N. Y.—Plans are being prepared by the state engineer for reconstructing 3½ miles of the Delaware Turnpike through this place.

GENEVA, N. Y.—Bids are asked by the board of public works until Feb. 20 for about 18,000 sq. yds. of brick or asphalt paving, as stated in our advertising columns. Edward Seybold, Supt.

NEW YORK, N. Y.—Bids are asked by the department of highways, 150 Nassau St., until Feb. 14 for regulating, grading, flagging, constructing sidewalks, etc., on Webster Ave. from Moshulu Parkway to the city line. Jas. P. Keating, Comr.

ROCHESTER, N. Y.—Bids have been received for paving on Bartlett St. with asphalt from Whitmore, Rauber & Vicinus, at \$7,233; Warren-Scharf Asphalt Paving Co., \$8,979; Rock Asphalt Pavement Co., \$7,840; Rochester Volcanic Pavement Co., \$8,223; Charles H. Wiltzie, \$8,286.

UTICA, N. Y.—The county supervisors have awarded a contract to the Climax Road Machine Co., Marathon, N. Y., for furnishing a stone crusher and road building outfit, at about \$9,000.

UTICA, N. Y.—Resolutions have been passed by the committee for paving portions of Charlotte St., Kossuth Ave., Seymour Ave., Eagle St. and other streets. A hearing will be given Feb. 10 to decide on the material. Resolutions for paving certain other streets have been referred to the committee.

LONGPORT, N. J.—Bids are asked by the freeholders of Atlantic county, Mays Landing, N. J., until Feb. 21, for constructing the Longport macadam road from Portland Ave., Ventnor, to 24th St., at Longport, a distance of about 19,275 ft., as stated in our advertising columns. J. J. Albertson, Engr., Magnolia, N. J.; Frank A. Souder, Dir., Atlantic City, N. J.

JERSEY CITY, N. J.—The street and water board has awarded a contract to the New Jersey Mexican Asphalt Co., at about \$12,000, for asphalt paving on Prospect St.

SCOTCH PLAINS, N. J.—It is proposed to macadamize Mountain Ave., from Stransbery's corner to the North Plainfield line.

AMBLER, PA.—At the annual election, to be held Feb. 21, the question of issuing \$18,000 of bonds for street improvements, etc., will be voted upon.

READING, PA.—Bids are asked by the council until Feb. 8 for the purchase of \$100,000 of paving bonds.

SHAMOKIN, PA.—Shamokin St. will be paved with brick between the Pennsylvania R. R. and Sunbury St. M. C. Fraser, Ch. Burgess.

BALTIMORE, MD.—The board of estimate has increased the appropriation for paving Pine St. from \$2,200 to \$4,000.

WASHINGTON, D. C.—Bids are asked by the district commissioners until March 4 for paving B St., northwest, from Ninth St. to 12th St., with brick, as stated in our advertising columns.

LYNCHBURG, VA.—The council has awarded a contract to the Pierce & Akers Co. for about 18,500 sq. yds. of rubble stone paving on Madison, Park and Grace Sts.

ATHENS, GA.—The question of issuing \$100,000 of 4% street improvement bonds will be voted upon Feb. 27, according to reports.

JACKSON, MISS.—The board of aldermen has directed estimates made for paving Capitol St. with brick. Walter G. Kirkpatrick, Cy. Engr.; D. P. Porter, Clk.

LOUISVILLE, KY.—The board of public works has awarded contracts to the Alcatraz Co., at \$19,747, and the Barber Asphalt Co., at \$84,658, for paving certain streets.

BRIDGEPORT, O.—Bids are asked until March 1 for the purchase of \$70,000 of paving bonds. John A. Fawcett, Cy. Clk., informs us that it is hoped to have the work commenced soon after April 1. Hix & Hoge, Engrs., Wheeling, W. Va.

CLEVELAND, O.—Bids are asked until Feb. 10 for furnishing and laying stone flagging. Geo. R. Warden, Dir.

LAKEWOOD, O.—Improvements have been decided upon by the village authorities to cost about \$1,000,000. It is proposed to construct \$150,000 worth of sewers, with a like amount to be expended on private sewers; the construction of the West End Boulevard, to extend from Lake Erie to Linddale, 120 ft. wide; Clifton Boulevard, south of Lake Ave. from Highland Ave. to Rocky River; the extension of Lake Ave. from Cook Ave. to Rocky River at Clifton Park; a boulevard along Rocky River on the Rocky River Road, and the widening of West Madison Ave., from 60 to 80 ft. Walter P. Rhee, Engr.

NEW PARIS, O.—It is proposed to construct cement walks. B. F. Kemp, Chn. Com.

ANDERSON, IND.—Bids are asked by the council until Feb. 20 for paving portions of 9th, 10th and 12th Sts.

with brick, asphalt block or crosshatched yellow pine block, including combined cement walks and gutters. H. W. Rogers, Cy. Engr.

LOGANSPORT, IND.—The council proposes to pave Market St. and Broadway with brick and asphalt.

SEYMOUR, IND.—Bids are asked until Feb. 9 for concrete sidewalks on South Chestnut St. L. E. Jennings, Cy. Clk.

BATTLE CREEK, MICH.—A petition will be presented to the legislature for authority to issue about \$20,000 of bonds for paving, according to reports.

DETROIT, MICH.—Steps will soon be taken by the park commission to improve Lafayette Ave. from Griawold St. to the Western Boulevard.

GRAND RAPIDS, MICH.—It is proposed to grade and gravel portions of Marion, South Fuller, Lyon, Madison and Warden Sts. and to pave with asphalt or macadam on Grand, Elm, Lake, Highland and other avenues.

SAGINAW WEST SIDE, MICH.—The county supervisors are considering the question of issuing \$200,000 of road improvement bonds, according to reports.

CAMBRIDGE CITY, IND.—This place will construct several thousand feet of cement walks. Dan. E. Petro, Clk.

CHARLESTON, ILL.—Bids are asked by the highway commissioners until Feb. 11 for grading and graveling on the Marshall and Springfield Road.

ST. PAUL, MINN.—An ordinance is before the board of public works for cement sidewalks in certain districts.

SPRINGFIELD, MO.—The council has granted the Springfield Traction Co. permission to pave its portion of Boonville Ave., between Phelps Ave. and the bridge, with brick and granite.

DENVER, COLO.—Bids are asked by the board of public works until Feb. 6 for repairing asphalt paved streets for the year 1899.

OLYMPIA, WASH.—Representative Maxwell, of Pacific county, has prepared a state road bill, providing for a new highway from Stella, Cowlitz county, through Wahkiakum county, to South Bend; appropriation, \$30,000.

WALLOWA, ORE.—Wallowa county has asked the legislature for an appropriation of \$6,000 to improve the road on Wallowa Hill, which is two miles long.

SAN FRANCISCO, CAL.—To complete the chain of boulevards around the city it is proposed to extend the system from Golden Gate Park northward along 13th Ave. to connect with Mountain Lake Park, near the Marine Hospital, making a driveway from Van Ness Ave. and Presidio Heights.

MANUFACTURING PLANTS.

EASTPORT, ME.—L. D. Clark & Sons, according to reports, will erect a new plant on Sea St., consisting of a 200-ft. wharf and a 2-story building, 150 x 35 ft. Work will begin soon.

LAKEPORT, N. H.—It is reported that J. Boulin & Co. will rebuild their mill, which was recently destroyed by fire.

MANCHESTER, N. H.—Reports state that the Armstrong Mfg. Co. contemplates making extensive improvements to its plant.

ATTLEBORO, MASS.—Plans have been completed for a new factory for Joseph M. Bates. Karl H. Hyde, Arch.

HYDE PARK, MASS.—The Brauerd Milling Machine Co., of this place, and the Becker Mfg. Co., Fitchburg, Mass., according to reports, have been organized as the Becker-Brauerd Milling Machine Co., with \$500,000 capital. The Becker plant will be moved to Hyde Park.

WORCESTER, MASS.—Reports state that C. J. O'Hara and others of this city with E. B. Eastman, Cumberland Mills, Me., have organized the Wachusett Thread Co. with \$50,000 capital and will locate a plant in this city.

PASCOAG, R. I.—Reports state that a new woolen and worsted mill will be located here. A. L. Sayles & Sons and F. L. Sayles & Co., of this place, are said to be interested.

MIDDLETOWN, CONN.—Plans have been completed for a 2-story brick addition, with a tower 20 x 20 ft., to the Portland silk factory.

NIAGARA FALLS, N. Y.—The Union Carbide Co. has awarded the contracts for erecting two new brick buildings, each 800 x 75 ft.; the iron work to the Berlin Iron Bridge Co., East Berlin, Conn., the carpenter work to Wentworth & Taylor, and the masonry to R. D. Young.

OLEAN, N. Y.—A fire, Jan. 22, destroyed the principal buildings of the Acme Refineria; estimated loss, \$50,000.

HOBOKEN, N. J.—The Hoboken Land & Improvement Co. is said to contemplate the erection of a 4-story factory building, 50 x 100 ft., on Grand St.—Reports state that a 2-story and cellar brick wall paper factory, 256 x 100 ft., will be erected at 15th St. and Park Ave. by the Potter Wall Paper Mills, to cost \$30,000. Pollard & Steinman, Architects., 19 Union Square, New York.

McKEESPORT, PA.—Reports state that the National Tube Works Co. contemplates the enlargement of the Monongahela blast furnace at McKeesport, about March 1, so as to increase its capacity 25 per cent. A. Waldburger, Engr., has prepared plans.

RICHMOND, VA.—We are informed that the Home Brewing Co. has awarded the contract for erecting its new ice plant to the Vitter Mfg. Co., Milwaukee, Wis.

PARKERSBURG, W. VA.—Reports state that the O'Neil Well Supply Co., Pittsburg, Pa., contemplates the erection of a plant at this place.

ATLANTA, GA.—The location of a large smelter plant at this city is projected. Col. J. Edgar Black and J. H. McCoy, Denver, Colo., are said to be interested.

CROWLEY, LA.—A fire here, Jan. 19, destroyed the Eagle Rice Mill, owned by J. E. Platte. Estimated loss, \$100,000; insurance, \$15,000.

LAKE CHARLES, LA.—Reports state that H. B. Milligan and W. D. Stone have made a contract with the Fred W. Wolf Co., 139 Rees St., Chicago, for a 35-ton refrigerating plant, the buildings to be 50 x 200 ft. They have also applied to the city for an electric light franchise.

TOLEDO, O.—Reports state that Baker Bros. will enlarge their plant.

INDIANAPOLIS, IND.—Love Bros., proprietors of the Indiana Cotton Mills, according to reports, contemplate the enlargement of their plant.

DETROIT, MICH.—The Citizens' Street Ry. Co. is said to contemplate erecting an addition to its shops, 150 x 75 ft., on Jefferson Ave.

PORT HURON, MICH.—It is reported that the Jewks Shipbuilding Co. will probably locate its projected plant on the Buncie farm, about four miles from here.

CHICAGO, ILL.—A fire in this city, Jan. 30, destroyed the mahogany yards of J. C. Raynor, at Morgan and Fulton Sts., and the box factory of F. C. Austin, estimated loss, \$325,000.

MOLINE, ILL.—It is reported that the Moline Plow Co. will erect a new foundry building, 150 x 200 ft., and will put in a 150-HP. plant and two continuous-process copolans.

KENOSHA, WIS.—Wm. H. Schott, Chicago, Ill., it is reported, has petitioned the council for an ordinance to build and maintain a hot-water heating supply house in the city, at an estimated cost of \$150,000.

KANSAS CITY, MO.—It is reported that the Weber Gas & Gasoline Engine Co. has completed plans for the extension of its plant.

GAS PLANTS.

ENTERPRISE, ALA.—Rawls & Rawls, Enterprise, wish to secure prices for six iron tanks with a capacity of 10,000 gallons oil each.

ASTORIA (L. I.), N. Y.—The Astoria Light, Heat & Power Co., recently incorporated, will construct a large gas plant and also an electric light and power plant. It is reported that the Consolidated Gas Co. and several smaller organizations will combine their plants on this side of the East River in the establishment of a series of storage tanks and abandon their works on Manhattan Island. A number of anaerobic distributing reservoirs will be located in various parts of the city and these will be supplied through a 20-ft. tunnel running from Woodlawn Point through Ward's Island to 110th St., Harlem. A bill will be presented to the legislature next week to authorize the construction of the proposed tunnel. Gas will also be supplied to Brooklyn and Queens boroughs.

CANTON, O.—The East Ohio Gas Co. has completed the work of laying mains in Canton and is now constructing lines between New Philadelphia, Massillon, Canton and Akron. The work will be completed by Feb. 27.

MISCELLANEOUS CONTRACTS.

CHEMICAL ENGINE.—Woodhull, Ill.—H. F. Simmons informs us that this town may purchase a chemical engine, population, 800.

WHARF, ETC.—Shamokawa, Wash.—This place has appointed a committee to estimate the cost of building a wharf 200 x 50 ft., and a warehouse 30 x 60 ft.

DITCH WORK.—New Madrid, Mo.—Bids are asked until Feb. 13 for digging about 75 miles of ditches in New Madrid county. L. C. Phillips, County Clk.

TELEPHONE LINE.—Mexico, Mex.—The federal government will erect a telephone line between the town of Pachuca and Mexico City, about six miles distant.

CANAL WORK.—Mexico, Mex.—Government engineers are preparing plans for building a canal and for clearing the rivers of the Sotavento District on the Gulf coast.

TELEPHONE WORK.—Savannah, Ga.—W. A. Bishop, Jacksonville, Fla., has been granted a franchise by the council to construct and operate a telephone system.

TELEPHONE WORK.—Shamokin, Pa.—The Montour & Columbia Telephone Co. has decided to construct a line to connect Shamokin, Sunbury, Northumberland and Catawissa.

POLICE ALARM SYSTEM.—Dedham, Mass.—The council has appointed E. V. Comerai, Chm., and G. G. Darling, Secy. of a committee to consider the question of installing a police alarm system.

LEVEE AND DREDGING.—Raywood, Tex.—Bids are asked by the Raywood Rice Canal & Milling Co., Raywood, for two miles of dredging and 15 miles of levee work, according to reports.

PARKS.—Newark, N. J.—The Twelfth Ward Improvement Association has submitted a petition to the park commissioner for a park on the river front between Ferguson and Frederick Sts.

DREDGING HARBOR, ETC.—Baltimore, Md.—Bids are asked by the harbor board until Feb. 8 for dredging and removing about 250,000 cu. yds. of material from the harbor and docks. N. H. Hutton, Engr.

TERMINALS AND DOCKS.—Savannah, Ga.—The Georgia & Alabama Ry. Co. proposes to construct new terminals and docks at Hutchinson's Island, to cost about \$1,000,000. J. S. Williams, Pres., Richmond, Va.

TELEPHONE WORK.—Quakertown, Pa.—The Delaware & Atlantic Telephone Co. proposes to extend its line from this place to Trumbauersville, Pennsburg and East Greenville this spring, according to reports.

BROKEN STONE, CEMENT, ETC.—Fort Hamilton, N. Y.—Bids are asked until March 1 for furnishing broken stone, cement and sand, as stated in our advertising columns. Maj. H. M. Adama, U. S. Engr., Army Bldg., New York.

DRY DOCK.—Boston, Mass.—The Navy Department has received the lowest bid for constructing a dry dock from O'Brien & Sheehan, New York, at \$87,200, and for electrical machinery, from the Thresher Electric Co., Dayton, O., at \$149,832.

DRY DOCK.—Superior, Wis.—The Barnett-Record Co., Minneapolis, Minn., has been awarded a contract by the American Steel Barge Co. for excavating and piling for the new dry dock, to be 606 x 110 x 17 ft., requiring about 65,000 cu. yds. of excavation.

EXTENDING CABLES.—New York, N. Y.—The Safety Insulated Wire & Cable Co., 229 West 28th St., New York, submitted the only bid Jan. 25, at \$3,369, for extending the telephone and telegraph cables between Governor's Island and Ellis Island.

TELEPHONE WORK.—Detroit, Mich.—The telephone syndicate, which has purchased the property of the Michigan Telephone Co., is prepared to expend within the next year \$2,000,000 in improving the state service. Hugh McMillan, Treas., Detroit; Chas. J. Gidden, Pres., Chicago, Ill.

BULKHEAD, ETC.—Wolcott, N. Y.—Senator Wilcox of Cayuga county, has presented a bill to the legislature asking for an appropriation of \$80,000 for building a bulkhead, dam and guardlock at the foot of Seneca Lake to regulate the flow of water into the Seneca River and canal.

SINKING A SHAFT.—Centralla, Pa.—Bids are asked by the Lehigh Valley Coal Co., Centralla, until Feb. 15 for sinking a shaft about 225 ft. in depth from the surface rock below the cribbing to the roof of the tunnel below, at Continental Colliery near Centralla. W. A. Lathrop, Gen. Supt.

TELEGRAPH LINE.—Ottawa, Ont.—Reports state that the cabinet will consider the advisability of asking parliament for an appropriation to build a telegraph line to Dawson, N. W. T., as a federal work. At present the government telegraph system extends to Quesnelle, in the

Cariboo District, B. C. From Quesnelle over the old Western Union route to Telegraph Creek and thence to Dawson the distance is about 1,300 miles, estimated cost, \$750,000.

PARK WORK.—Boston, Mass.—Bids are asked by the Metropolitan Park Commission, 14 Beacon St., until Feb. 20 for surfacing, etc., the speedway section of the Charles River reservation, from Western Ave., to North Harvard St., including 10,000 cu. yds. of grading, 13,000 cu. yds. of excavation, 25,000 cu. yds. of filling, 100,000 ft. B. M. of masonry, 4,000 lin. ft. of iron pipe fence, 3,200 cu. yds. of gravel, 15,000 tons of broken stone surfacing, 12,700 cu. yds. of loam surfacing, etc. Wm. T. Pierce, Engr.

RIVER WORK.—Buffalo, N. Y.—The board of public works received the following bids Jan. 26 for widening and deepening the Buffalo River at South Buffalo:

Table with 4 columns: Bidder, No. 1, No. 2, No. 3, No. 4. Lists contractors like Donnelly Contracting Co., Brown, Stabell & Griffiths, etc., with bid amounts.

TELEPHONE WORK.—Pittsburg, Pa.—Reports state that representatives of 26 Western Pennsylvania independent telephone companies held a conference here Jan. 23 with James E. Keely, Pres. of the Western Telephone Construction Co., of Chicago, to consider the question of securing an independent telephone system in Pittsburg in connection with the neighboring independent companies. Among those present were George Kruger, Pres., and C. J. Mayer, Secy., Johnstown Co.; M. C. Watson, Pres. of the Indiana County Co.; T. J. Shufflin, of the Butler Co., and C. Bollinger, of the Apollo Co. If an agreement is made it is proposed to construct a plant to cost about \$1,000,000.

CONTRACT PRICES.

CAST-IRON WATER PIPE.—Baltimore, Md.—Our correspondent informs us that the following bids were received Jan. 11 for furnishing cast-iron water pipe as may be required by the water board during 1899; all bids per ton of 2,240 lbs., delivered f. o. b., Baltimore; contract awarded Jan. 25 to the National Foundry & Pipe Works; W. L. Kenly, Ch. Engr.:

Table with 4 columns: Bidder, 1 1/2-in. pipe, 2-in. pipe, 3-in. pipe, Total. Lists contractors like National Foundry & Pipe Works, etc.

Water Works.—Vailsburgh, N. J.—We are informed that A. Costa, Orange, N. J., was awarded the contract Jan. 23, 1899, for constructing the proposed water-works and for laying pipe at 12 cts. a ft. for 4-in., 13 cts. for 6-in., and 17 cts. for 8-in. pipe, \$2 a cu. yd. for rock excavation. In our issue of Jan. 19, we stated to whom the contracts for pipe and hydrants were awarded. Eugene A. McMurray, Engr., 22 Clinton St., Newark, N. J.

WATER PIPE.—Boston, Mass.—W. E. Swan, Secy. Water Comrs., writes us that the following bids were received Jan. 25, 1899, for furnishing 5,500 tons of water pipe and special castings, as advertised in Engineering News; contract awarded to Warren Foundry & Machine Co.:

Table with 4 columns: Bidder, (A ton (2,000 lbs.) Special), For pipe castings, Total. Lists Warren Foundry & Machine Co., Camden Iron Works, etc.

CASTINGS AND BOLTS.—Washington, D. C.—The following bids were received by Lieut.-Col. A. M. Miller, U. S. Engr., Jan. 26, 1899, for furnishing and delivering at the Washington aqueduct tunnel, a supply of castings and bolts, as advertised in Engineering News:

Table with 4 columns: Bidder, Special Castings, Bolts, Total. Lists Thompson C. Gill & Co., Bartlett, Hayward & Co., etc.

BRICK CEMENT, ETC.—Washington, D. C.—We are informed that the following bids were received by Lieut.-Col. A. M. Miller, U. S. Engr., Jan. 26, 1899, for furnishing materials for work in regard to increasing the water supply of Washington, the materials to be delivered at the shafts of the Washington aqueduct tunnel, as advertised in Engineering News:

Table with 4 columns: Bidder, National Mortar Co., Columbia Natl Sand Dredging Co., etc., with bid amounts.

The following are the itemized bids: (1) Brick, 5,000,000; (2) cement, 20,000 hhls.; (3) sand, 5,000 cu. yds.; National Mortar Co., (2) 90 cts. a hhl.; (3) \$1.75 a cu. yd.; Columbia National Sand Dredging Co., (3) \$1.50 a cu. yd.; Waters & Son, (2) Round Top 88 cts.; Frederick Brick

Works, (1) \$11.40 a 1,000; Potomac Hydraulic Cement Co., (2) Potomac hydraulic, 91 cts.; Jas. H. McGill, (2) Cumberland hydraulic, 82 cts.; Groves Lime & Coal Co., (2) Cumberland and Potomac, 90 cts.; Standard Brick Co., (1) \$11.73, \$12.60, Arch, \$10.23, \$11.60; West & Bro., (1) \$16; Walker Sons, (2) Cumberland and Potomac, \$1.15; Lawrenceville Cement Co., (2) Beach's Rosendale, 91 cts.

EMPLACEMENT MATERIALS.—Fishers Island (L. I.), N. Y.—We are informed that the following bids were received Jan. 23, by Maj. Smith S. Leach, U. S. Engr., New London, Conn., for furnishing materials for 10 and 12-in. gun emplacements at Fishers Island, as advertised in Engineering News:

BIDS RECEIVED AT NEW LONDON, CONN., JAN. 23, 1899, FOR FURNISHING MATERIALS FOR 10 AND 12-INCH GUN EMPLACEMENTS ON FISHERS ISLAND, (L. I.), N. Y.

Table with 4 columns: Bidder, Large and Small Stone, and Sand, Location of sand bank, Sand, 8,000 cu. yds. Lists Calvin Tomkins, Saml. E. Bouker, etc.

*Defective; did not bid for full stone contract. Location of quarry: Tomkins Cove and Rondont, N.Y.; Hudson River, N. Y.; Westerly, R.I.; East Haven, Conn.; Shelton, Conn.; Milestone, Conn.; Guttenberg, N. Y.; Clinton Point, N. Y.; Monson, Mass.

Lumber, I-Beams, Trolley Tracks, Anchor Bolts, Etc.

Table with 4 columns: Bidder, Lumber, I-beams, Trolley Tracks, Anchor Bolts, Total. Lists N. J. F'dry & Mach. Co., Dallett & Co., etc.

*Bid not considered; did not bid on entire class.

Doors, Frames and Transoms.

Table with 4 columns: Description, Quantity, Price, Total. Lists doors with transoms and frames, etc.

1.—The Exeter Machine Works, Pittston, Pa. 2.—N. J. Foundry & Machine Co., Havemeyer Bldg., New York, N. Y. Standard Supply & Equipment Co., Philadelphia, Pa. 4.—Greenlie, Wyatt & Co., New York, N. Y. Specifications call for f. o. b. cars, New London, but bid of Exeter Machine Works is for f. o. b. cars at Pittston.

Sewer Pipe, Manholes, Strainers, Drain Tile, Etc.

Table with 4 columns: Quantities, N. J. Foundry & Machine Co., E. A. Chatfield Co., Standard Supply & Equipment Co., T. C. Gill & Co., Charles F. Chaney, Total. Lists 4-in. vitrified pipe, 6-in. pipe, etc.

Speaking Tubes and Hand Rail.

Table with 4 columns: Quantities, N. J. F'dry & Mach. Co., E. T. & Co., T. C. Gill & Co., Total. Lists 2-in. galvanized pipe, 1 1/2-in. pipe, etc.

Chicago—Angle bars, 1.15 to 1.25 cts.; spikes, 1.55 cts. to 1.60 cts.; track bolts, hexagonal, 1.90 cts. to 2.00 cts.; square, 1.80 cts. to 1.90 cts.

RAILS, STEEL

New York, new \$19.00 to \$20.00. Chicago, new, \$20.00 to \$22.00; old iron, \$13.00 to \$13.50; steel, \$10.50 to \$11.00. Pittsburg, new, \$19.00 to \$20.00; old iron, \$14.25; old steel, \$10.25 to \$10.75.

STRUCTURAL STEEL

New York—Beams, 1.40 cts. to 1.50 cts.; channels, 1.35 cts. to 1.45 cts.; tees, 1.45 cts. to 1.50 cts.; angles, 1.30 cts. to 1.35 cts.; rivets, 1.75 to 1.85 cts. Chicago—Beams, 1.45 cts. to 1.49 cts.; channels, 1.45 cts. to 1.60 cts.; tees, 1.50 cts. to 1.60 cts.; angles, 1.35 cts. to 1.40 cts. Pittsburg—Beams, 1.30 cts. to 1.40 cts.; channels, 1.30 cts. to 1.40 cts.; tees, 1.35 cts.; angles, 1.20 cts.

PLATES AND SHEETS

New York—Universal mill plates, 1.30 cts. to 1.35 cts.; tank, 1.40 cts. to 1.45 cts.; shell, 1.45 cts. to 1.50 cts.; flange, 1.70 cts. to 1.75 cts.; firebox, 2.25 to 2.50 cts. Chicago—Universal mill plates, 1.40 cts. to 1.50 cts.; tank, 1.45 cts. to 1.50 cts.; shell, 1.70 cts. to 1.80 cts.; flange, 1.30 cts. to 1.50 cts.; firebox, 1.75 cts. to 4.00 cts.; sheets, 2.25 and upwards. Pittsburg Universal mill plates, 1.20 cts. to 1.25 cts.; tank, 1.40 cts. to 1.45 cts.; shell, 1.45 cts. to 1.50 cts.; flange, 1.50 cts. to 1.55 cts.; firebox, 2.00 cts. and upwards; sheets, 1.85 cts. to 1.95 cts.

MERCHANT STEEL

Machinery per lb., 1.60 cts. to 1.70 cts. Tool, per lb., 5.50 cts. to 7 cts.

IRON

Pig iron: New York—No. 1, \$11.75 to \$12.00; No. 2, \$11.00 to \$11.25.

ELECTRIC LIGHTING.—Sea Isle City, N. J.—Jas. T. Chapman, Clk., informs us that the following bids were received Jan. 23, 1899, for electric lighting, as advertised in Engineering News: Sea Isle City Electric Light, Power & Water Co., Sea Isle City, N. J., 75 50 c. p. incandescent lights for virtually same price as heretofore, viz., \$2,500; Weisbach Street Lighting Co., Philadelphia, 40 lamps, posts, etc., for \$30 a year for each lamp and care of same; Kalbach Son & Co., Ocean City, N. J., 30, 1,200-c. p. arc

Chicago—No. 1, \$12.00 to \$12.50; No. 2, \$11.50 to \$12.00.
 Pittsburgh—No. 1, \$11.10 to \$11.80; No. 2, \$10.00 to \$10.75.
 Bar iron:
 New York, common, 1.10 cts. to 1.12 cts.; refined, 1.15 cts. to 1.20 cts.
 Sheets:
 common, American per lb., 2.15 cts. to 2.75 cts.
 Russia, per lb., 10½ cts. to 11.00 cts.
 LUMBER—
 New York:
 Hemlock timber, 20 ft. and under, per M, \$12.00 to \$12.50.
 Piling, Eastern spruce, 35 to 40 ft., 30 to 40% 12-in. butts, 4.25 cts.
 Spruce, special cargoes, per M, \$15.00 to \$17.50.
 Yellow pine, random cargoes, \$15.50 to \$17.00.
 North Carolina pine, \$2.25 to \$2.40 advance over Norfolk rates.
 San Francisco:
 Oregon pine, per M, \$15.50 to \$17.50.
 Redwood, per M, \$18.20 to \$20.00.
 Redwood tank stock, up to 10 ft., \$24.00 to \$25.00.
 GENERAL MATERIALS—
 Lead, New York, 4.45 cts. to 4.50 cts.
 Nails, Pittsburgh, 1.40 cts.
 Solder, per lb., 8½ cts. to 13 cts.
 Spelter, per lb., 5.65 cts. to 5.75 cts.
 Copper ingots, 12.50 cts. to 14.00 cts.
 Granite, rough, New York, cu. ft., 40 cts. to 50 cts.
 Limestone, New York, cu. ft., 70 cts. to 80 cts.
 Ohio freestone, New York, cu. ft., 85 cts. to 90 cts.
 Slate, Penn., block, per square, \$4.00 to \$5.00.
 White lead, American, per lb., 5½ cts. to 6 cts.
 Lime, common state, per bbl., 75 cts.

INDUSTRIAL NOTES.

THE PENNSYLVANIA STEEL CO., Steelton, Pa., has removed its New York office from 2 Wall St. to the Empire Building, 71 Broadway.

THE UNIVERSAL CONSTRUCTION CO., Chicago, has the contract for the construction of the 80 x 442-ft. steel main factory building for the Kingman Plow Co. at Averyville, Ill.

THE WARREN ELECTRIC MFG. CO., Sandusky, O., is reported to have an order for one 7,000 and two 3,500-light dynamos for the new electric light plant for Armour & Co., Chicago.

THE FEDERAL STEEL CO., Chicago, is reported to have purchased the Puritan Coke Works, Latrobe, Pa., for \$1,500,000. The purchase includes 900 acres of coal land and 500 coke ovens.

ROGERS, BROWN & CO., Chicago, have bought the plant of the Iroquois Furnace Co., at 95th St., South Chicago, for about \$500,000, according to report. Mr. Wm. A. Rogers, Buffalo, N. Y., is the head of the firm.

THE GREGER ENGINEERING CO., formerly at 315 North Broad St., Philadelphia, has changed its name to the Greger Mfg. Co. and has removed its offices to Washington Ave., 22d and Alter Sts., Philadelphia.

THE TERRY & TRENCH CONSTRUCTION CO., contractors, has removed its office from 202 West 118th St. to Room 1404, Bowling Green Building, 11 Broadway, New York.

THE PURINGTON PAVING BRICK CO., Galesburg, Ill., at its annual meeting, Jan. 26, elected the following officers: Pres. and Treas., D. V. Purington; Vice-Pres. and Gen. Mgr., W. S. Purington, and Secy., Chas. H. Chamberlain.

THE PITTSBURG REDUCTION CO., Pittsburg, is reported to have an order for a large quantity of aluminum for a new telegraph and telephone line to be erected in Manila, Philippine Islands, from Saale & Co., Yokohama, the Japan agents of the company.

THE AMERICAN STEEL CAR CO., St. Louis, Mo., is reported to have an order for 50 cars from the West End Ry. Co., Boston, Mass., and orders for 25 cars for the Metropolitan Traction Co., and 25 cars for the Capital Traction Co., both of Washington, D. C.

THE PRESSED STEEL CAR CO., Pittsburg, is reported to have an order for 1,000 steel cars of 100,000 lbs. capacity, each, at a total cost of \$1,000,000, for the Union Pacific R. R. An order has also been received from Thos. Reynolds, London, England, for 300 cars for South Africa, requiring 40,000 tons of steel.

THE STANLEY ELECTRIC MFG. CO., Pittsfield, Mass., is reported to have a contract for an electrical plant in Columbus, Ga., consisting of three 1,200 HP. dynamos of the S. K. C. system and a complete switchboard. The plant is to supply heat, light and power for the entire city, it is stated, and the cost will be about \$100,000.

THE JEFFREY MFG. CO., Columbus, O., has recently begun the manufacture of standard elevator buckets and spiral conveyors and reports a good trade. Its facilities enable it to supply high grade material at prices which secure a large trade for this class of machinery. The company has lately issued a new catalogue which will be sent upon application.

THE FULTON ENGINEERING & SHIPBUILDING CO., San Francisco, Cal., has an order, according to report, for a 1,500,000-gallon pumping plant and two air compressors from Alexander & Baldwin, Honolulu, Hawaii; a Corliss steam compressor for the Kennedy mines; a 28-in. air compressor for the Maro Island Navy Yard, California; a duplex compressor for the Banner mine, Oreville, Cal., and a large rock crusher for the New Bown mine, Tuolumne county, California.

THE BROWN HOISTING & CONVEYING MACHINE CO., Cleveland, O., through its New York office, 26 Cortlandt St., has secured a contract from the Navy Department for coal handling machinery for the coaling station at Mare Island Navy Yard, California, which is the sixth coaling station for the United States Navy to be equipped with machinery of the company's manufacture and constitutes all the stations so far awarded. The company has also the contract for a 100-ton steel floating crane, weighing over 1,000 tons, for the Brooklyn Navy Yard, New York.

THE AULTMAN CO., Canton, O., informs us that it has recently taken up the manufacture of the Priestman Safety Oil Engine, an English internal combustion motor, which has had a considerable success abroad. It is stated that this motor when driving a dynamo will light eight 16 c. p. lamps an hour with a consumption of 1 pint of kerosene. If attached to an ice machine, the same quantity of fuel will produce about 200 lbs. of ice. If attached to a hoist, one ton can be lifted 400 feet; and if used for pumping, 1,000 gallons of water can be raised 96 ft. in each case with the same expenditure of fuel.

THE CASE MFG. CO., Columbus, O., reports that it is busy in its Crane Department, and has among other orders on hand the following: A 60-ton trolley traveling crane, Portsmouth, O.; a 30-ton electric traveling crane, St. Louis, Mo.; a 15-ton electric traveling crane, Pittsburgh, Pa.; and a 10-ton hand power traveler, Sanderson & Porter, New York. It has also recently shipped a 15-ton crane to the Toledo Machine & Tool Co., Toledo, O., and has also furnished several wrecking cranes to various railroads.

JACKSON & MOSS, Des Moines, Ia., civil and constructing engineers, report that during the past year they have constructed water-works for Tripp, S. Dak.; Hartley, New Sharon, Alden, Buffalo Center, Pella and Sheff Rock, Iowa; and Elmore, Minn. They also have contracts at Keota and Osage, Iowa, which they were unable to complete in 1898, and are now preparing plans and specifications for works at Hocktson and Allison, Iowa, and Stanberry, Mo. In connection with all these plants, except the one at Osage, Iowa, steel water-towers are being built and designed by the firm.

THE AMERICAN STEEL WIRE CO., New York, has elected the following officers: Chm., J. W. Gates; Pres., John Lambert; First Vice-Pres., Wm. Edenborn; Second Vice-Pres., I. L. Ellwood; Third Vice-Pres., S. H. Chisholm; Fourth Vice-Pres., P. W. Moen; Treas., W. A. Green; Asst. Treas., F. L. Watson, Chicago; Asst. Treas., T. P. Adler, New York; Secy., C. S. Roberts; Asst. Secy., O. Owen, Chicago; Asst. Secy., F. E. Patterson, New York; Executive Com., I. L. Ellwood, Chm.; J. W. Gates, Wm. Edenborn; Gen. Counsel, Seward, Guthrie & Steele; Gen. Mgr., Wm. P. Palmer; Asst. Gen. Mgr., A. M. Crane; Gen. Sales Agt., Chas. T. Boynton; Aud., C. A. Honecker, and Asst. Aud., Chas. A. Vogt.

THE KENEY CO., 72 to 74 Trinity Place, New York, has placed its "Flushometer" aboard a number of U. S. Government vessels, among them the U. S. transport "Grant," that sailed Jan. 19 with troops for Manila, Philippine Islands. It is equipped with 63 "flushometers," and dispenses with the individual overhead tanks for flushing the closets, which are undesirable for use aboard ship on account of the rolling of the vessel, and as the supply is both irregular and unreliable. With the Keney system there is one supply tank in the hold and the water is pumped from this at an even pressure through supply pipes to the "flushometer" attached to each closet, which is thus flushed without noise and without wetting the floor.

NEW COMPANIES.—Co-operative Telephone Co., Columbus, O.; \$50,000; to construct and operate a telephone system in Columbus; J. S. McLean, Alred E. Lee, William M. Payne, G. D. Owen, O. B. Summers and others.

Hinton & Southeastern Telephone Co., Hinton, W. Va.; \$50,000; A. J. Skagg, of Ballard; James H. Miller, J. J. Swope, C. H. Skaggs, and W. H. Bonde, of Hinton.

Electropathic Co., Buffalo, N. Y.; \$1,000, all paid in; to manufacture and sell electrical goods; Alfred C. Schew, Heister, Z. M. Rodgers, Elbert Rodgers.

Peninsular Engineering Co., Detroit, Mich.; \$5,000; consulting and contracting engineers, etc.; A. A. Cowles, J. C. Danziger, F. A. Goodrich, Wm. Gerhauser, and Wm. Gerhauser.

Long Island Hygeia Ice Co., New York; \$80,000, with \$2,000 paid in; to manufacture ice; G. H. Smith, H. L. Smith, M. F. Kastner, H. C. Johnson, T. Stein, R. Paul, L. C. L. Smith, A. Flanagan, New York.

Mark Steel Co., Plano, Ill.; \$100,000; to manufacture railway equipments; J. R. Stewart, U. D. Stewart, J. D. Harris.

Automatic Alarm Bell & Sign Co., Philadelphia, Pa.; \$100,000, commencing with \$100; to manufacture and sell automatic sign bells and devices, mechanical or otherwise; E. A. Tennis, Thompsontown, Pa.; L. A. Conwell, W. L. Conwell, J. Slaughter, Geo. E. Coolidge, Philadelphia.

Perranold Co., New York; \$1,000,000, with \$50 paid in; to manufacture and produce pigments, cements, etc.; Charles O. Maas, J. Owen Moore, Edward E. Imhoof, Purdy Van Vleet, Thomas R. Duncan, of New York.

Syracuse Railroad Construction Co., Syracuse, N. Y.; \$25,000; to construct and equip railways; Clifford D. Beebe, William F. Rafferty and Thomas H. Mather, of Syracuse.

United States Steering Gear & Valve Co., 239 Washington St., Jersey City, N. J.; \$100,000; to manufacture machinery for controlling and regulating movements of vessels, elevators, etc.; Wm. H. Speer, George H. Doremus, Wm. H. Speer, Jr., 9 Park St., Jersey City; Clarence Lian, 290 Bergen Ave., Jersey City.

New York & West Virginia Coal Co., 76 Montgomery St., Jersey City, N. J.; \$500,000; to mine coal in West Virginia; Chas. J. Baugh, Arbuckle Bldg., Brooklyn, N. Y.; Almon C. Brown, 11 Broadway, New York; Norman L. Rowe, 76 Montgomery St., Jersey City; Ernest D. Morris, Clarksburg, W. Va.

Audubon & Kimbleton Telephone Co., Audubon, Ia.; \$900; Pede Lykke.

Henry County Telephone Co., New London, Ia.; \$1,000; E. C. Stevenson.

Excelsior Compressor Co., 238 Washington St., Newark, N. J.; \$100,000; to manufacture air compressing machines; William Meeske, William Hill, Irvin G. Hooper, Philip Cramer.

Wyandotte Mining Co., Milwaukee, Wis.; \$2,550,000; to work the Wyandotte and Camba and Valley mines, with a combined area of 1,040 acres.

Michigan Iron Worker, Grand Rapids, Mich.; \$50,000, commencing with \$30,000; to manufacture and deal in machinery, tools and mill supplies; W. T. Powers, F. A. Richards, F. C. Powers, Fred W. Powers, C. H. Gleason, A. L. Banks, J. W. Spooner, C. W. G. Everhart.

Bernstein Electric Mfg. Co., Portland, Me.; \$100,000, commencing with \$50; to manufacture electrical apparatus; A. W. Putnam, Salem, Mass.; E. S. Gardner, Wollaston, Mass.; C. F. Langley, South Boston, Mass.; J. T. Knapp, Roxbury, Mass.; C. H. Tolman, Portland, Me.

Otter Mining & Milling Co., San Francisco, Cal.; \$500,000, commencing with \$25,000; A. B. Benson, Oakland; J. J. Meyers, R. N. Braves, Albert Cerf, H. W. Mathews.

Roebling Construction Co., Trenton, N. J.; \$250,000; to construct buildings and structures, and necessary material therefor; Chas. G. Roebling, Fred W. Roebling, Frank O. Briggs, Trenton; Jas. W. Hinkley, Poughkeepsie, N. Y.; Frank H. Croker, New York.

United Electric Co., New York; \$1,000, commencing with \$100; to manufacture dynamos, motors, etc.; W. E. Sheffield, Brooklyn, N. Y.; P. K. Green, Jersey City, N. J.; W. S. MacClintock, Bensonhurst, N. Y.; A. G. Haven, Fairview, N. J.; H. H. Lamberson, New York.

Hillsdale Fire Brick & Clay Co., Chicago, Ill.; \$6,000, all paid in; W. C. Van Glider, W. E. McCormick, W. R. Burligh.

National Carbon Co., Trenton, N. J.; \$10,000,000; W. H. Lawrence, Myron T. Herrick, James Parmelee, Webb C. Hayes, all of Cleveland, O.; G. C. Van Buren, St. Louis, Mo.; A. M. Young, Brooklyn, N. Y.; J. M. Humbird and D. D. Dickey, Pittsburg, Pa.; Hugh H. Hamill, Trenton.

Cambridge Telephone Co., Cambridge, Ill.; \$800; to operate telephone system; J. A. Kirkland, G. A. Vawter, and James Pollock.

Eclipse Foundry Co., Belleville, Ill.; \$6,000, all paid in; H. Longfelder, L. Meyer, B. Taylor.

New England Fire Proofing Co., Portland, Me.; \$1,000,000, commencing with \$35,000; A. J. Dearborn, C. C. Blanchard, Lynn, Mass.

Mail Delivery Notice.

Special efforts are made to deliver our paper to its readers each week at the earliest possible moment. The largest binding and mailing establishment in New York begins work on Engineering News early each Wednesday evening, and all papers for Boston, Philadelphia and Washington are usually in the New York post-office by midnight; all Brooklyn and New York city papers by 3 o'clock—in ample time for the first delivery Thursday morning. The entire edition, including foreign copies, is in the mail soon after 6 o'clock Thursday morning. If your paper is not received promptly we advise that you make a complaint to your local post-office officials.

STONE HEADS.

ESSEX COUNTY PARK COMMISSION—PROPOSALS FOR THE CONSTRUCTION OF STONE HEADS TO SUBWAYS NOS. 1 AND 2, UNDER THE DRIVEWAY, AT BRANCH BROOK PARK, NEWARK, N. J.

Sealed proposals for the above work, indorsed with the above title, also with the name of the person or persons making the same, and the date of presentation, will be received at the office of the Essex County Park Commission, 800 Broad Street, Newark, N. J., on Monday the 20th day of February, 1899. The Commission will be in session from 3 to 3:30 p. m., of that date, to receive the proposals which will not be received at any other time or place.

Bidders are required to state in their proposals, under oath, their names and places of residence; the names of all persons interested with them therein, and if no other person be so interested they shall distinctly state the fact.

In addition to the bid on Milford granite bidders will be allowed to submit a bid for all the cut-stone work, above the line marked X on the drawings, using buff Indiana lime stone, buff Minnesota sand stone, buff Ohio sand stone, or any sound light-colored stone that is free from iron.

A sample of the stone on which the alternate bid is based must be submitted with the bid, and no alternate bid will be considered unless accompanied by a bid for the work so specified with Milford granite.

The amount of security required is ten thousand dollars.

The right is expressly reserved by the Essex County Park Commission to reject any or all bids which it may deem prejudicial to the public interests.

The prices are to cover the furnishing of all the necessary materials and labor, and the performance of all the work as set forth in the specifications and form of agreement, and the completion of the entire work.

The Architects of the Commission, Carrere & Hastings, will give any necessary explanations or instructions to bidders at their office, No. 28 East 41st Street, New York.

Plans and specifications can be seen at the Commission's office, as above, and copies of the specifications and proposals may be obtained by application at that office.

THE ESSEX COUNTY PARK COMMISSION.
 3-4t A. CHURCH, Secretary.

OFFICE OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA, Washington, January 28, 1899.—Sealed proposals will be received at this office until 12 o'clock, noon, Saturday, March 4, 1899, for paving B street, northwest, from 9th to 12th streets, with vitrified blocks. Form of proposal, specifications and all necessary information can be obtained at the office of the Engineer Commissioner, D. C. JOHN B. WIGHT, JOHN W. ROSS, LANSING H. BEACH, Commissioners, D. C. 5-1t

RAILWAY GRADING.

We will sub-let to reliable contractors certain portions of forty miles of grading, averaging about 20,000 cubic yards per mile; mostly car and wheel scraper, with some steam shovel work, between Tara and Carnarvon, on the Fort Dodge and Omaha extension of the Illinois Central R. R. Profile can be seen and further information obtained upon application to

C. E. LOSS & CO., Contractors,
 5-1t Pullman Bldg., Chicago.

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