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PERSONAL.

Mr. George M. Newton has been appointed City Engineer of Dunkirk, N. Y.

Mr. A. B. Underwood has been appointed Street Commissioner of Dunkirk, N. Y.

Mr. T. W. Davey has been appointed Superintendent of Water-Works of Middletown, N. Y.

Mr. William O. B. Walker has been appointed Superintendent of Docks of New York city.

Mr. J. A. Bureleigh has been elected Water Commissioner for three years of Waterbury, Vt.

Mr. Frederik S. Hancock, civil engineer, has been appointed Assistant City Commissioner of Baltimore, Md.

Mr. T. P. Scully has been elected President of the Chicago & Northwestern Telegraph Co., Chicago, Ill.

Mr. A. W. Cowie, Superintendent of Telegraph of the Rio Grande Western Ry., with headquarters at Salt Lake City, Utah, has resigned.

Mr. William H. Burke has been appointed Secretary of the Board of Dock Commissioners of New York city, to succeed Mr. George S. Terry, resigned.

Mr. J. W. Whittlesey Chief Engineer of the Brooklyn R. R., has resigned to accept a position with the John Stephenson Co., Limited, car builders, of New York.

Mr. Godfrey Pearson Farley, formerly Engineer of the Department of Docks, New York city, has been elected Vice-President and General Manager of the Wiscasset & Quebec R. R., with headquarters at Wiscasset, Me., to succeed Mr. W. F. P. Fogg.

Mr. A. D. Mott has opened an office as a consulting engineer, in the Marquette Bldg., Chicago, under the firm name of A. D. Mott & Co. They will make a specialty of building construction and foundations, furnishing plans, estimates and shop details, as well as other general civil engineering work.

Mr. John W. Hill, M. Am. Soc. C. E., of Cincinnati, O., read a paper, March 8, before the Arapahoe Medical Society, of Denver, Col., on "The Relation of Water to Typhoid Fever." He was in Denver to testify on the part of the city in the suit against the Denver Union Water Co. The purity of the supply is at present under consideration.

Mr. George L. Bradbury, Vice-President of the Cleveland, Akron & Columbus Ry. and of the Lake Erie & Western R. R., with headquarters at Chicago, Ill., has been elected President and General Manager of the Peoria & Pekin Union Ry. Mr. C. H. Bosworth, formerly President of the last named road, has been elected Vice-President.

Mr. Howard G. Kelley, M. Am. Soc. C. E., Chief Engineer of the St. Louis Southwestern Ry., and of the Tyler Southeastern Ry., with headquarters at Tyler, Tex., has been appointed Chief Engineer of the Minneapolis & St. Louis R. R., in charge of track, bridges and buildings with headquarters at Minneapolis, Minn., succeeding Mr. Charles Wanzer.

Mr. Thomas T. Johnston, of Chicago, has been appointed Chief Engineer of the Snoqualmie Falls Power Co., which proposes to develop 8,000 HP. at the Snoqualmie Falls, and transmit it electrically to Seattle and Tacoma, Wash. He has also been selected by the Artesian Water Co., of Memphis, Tenn., to take charge of the engineering matters pertaining to negotiations between the city and the company. Mr. Johnston retains his position as First Assistant Engineer of the Sanitary District of Chicago.

Mr. James H. Alger, Superintendent of the Salt Lake Division of the Southern Pacific Co., with headquarters at Ogden, Utah, has been appointed Superintendent of the Western Division, with headquarters at Oakland, Cal., to succeed Mr. A. D. Wilder, deceased. Mr. Alger will be succeeded at Ogden by Mr. John W. Noble, Superintendent of the Shasta Division, which will be merged into the Sacramento and Oregon Divisions. Messrs. J. B. Wright and Robert Keihler are the Superintendents of these two last named divisions.

OBITUARY.

Mr. John Ross, railway contractor, of Lancaster, Ont., died March 11.

Mr. John Bray, contractor, of Brooklyn, N. Y., died March 12, aged 49.

Mr. Nehemiah Hubbard, civil engineer, of Ashtabula, O., died March 10, aged 85.

Mr. Edgar L. Ridgway, formerly an Aqueduct Commissioner of New York city, died March 15, aged 52.

Mr. John Z. Westervelt, one of the founders of the Malden Electric Co., Malden, Mass., died at that place, March 4, aged 56.

Mr. James E. Hayden, who as one of the engineer corps surveyed the New London & Northern R. R. in 1848, died at Providence, R. I., March 12, aged 68.

Mr. William Ardagh, Assistant Consulting Engineer of the Intercolonial Ry., died recently at Montreal, Que., aged 23. He was connected with the Grand Trunk Ry. for ten years.

Lieut. Oswin Welles Lowry, U. S. Navy, in charge of the Hydrographic Office, New York city, died March 13, aged 46. He was a graduate of the U. S. Naval Academy and for two years was Superintendent of the House of Refuge, a reformatory on Randall's Island, New York.

Mr. George E. Hartnell, civil engineer, of Cleveland, O., died March 5, aged 58. For a number of years he was connected with the Standard Oil Co., as Superintendent of Construction, during which time he spent six months in Germany superintending the erection of the company's plant in Bremerhaven. He was also interested in dry-dock construction and designed and built the two docks of the Ship Owners' Dry-Dock Co. in Cleveland, and the dry-dock of the American Steel Barge Co., at Duluth, Minn.

Gen. William Starke Rosecrans, a prominent General of the Civil War, and at one time a Civil Engineer, died at Los Angeles, Cal., on March 11. Gen. Rosecrans was born in Kingston, O., Sept. 6, 1819, and was graduated from West Point in 1842 as a Lieutenant in the Corps of Engineers. As an engineer he was engaged in the construction of fortifications at Hampton Roads and other points, and he was for a time Assistant Professor of Engineering and Assistant Professor of Natural and Experimental Philosophy at the West Point Academy. He resigned from the Army on April 1, 1854, with the rank of First Lieutenant of Engineers, and opened an office in Cincinnati, O., as civil engineer and architect. In 1855-57 he was Superintendent of the Canal Coal Co., Coal River, Va.; and in 1856-57 President of the Coal River Navigation Co. In 1861 he volunteered as an aide on the staff of Gen. McClellan; became Colonel of the 23d Ohio Volunteers on June 10, 1861, and was then made a Brigadier-General, U. S. Army, with commission dating from May 16, 1861. He later commanded the army of the Cumberland and was engaged in a number of the chief battles in the West. He was brevetted Major-General in the U. S. Army and resigned on March 28, 1867. He was minister to Mexico in 1868-69; and, as a civil and mining engineer, he became interested in railway enterprises in Mexico. In 1871-81 he was President of the San Jose Mining Co., and of the Safety Powder Co., of San Francisco, in 1878-81. He was a member of Congress from 1881 to 1885, and was Register of the U. S. Treasury from 1885 until 1893. He was reappointed to the Army by Congress in 1889 and placed upon the retired list the same year with the rank of Brigadier-General, U. S. A.

Sir Henry Bessemer, Hon. M. Inst. C. E., F. R. S., the principal inventor of Bessemer steel, died in London, England, March 14. He was born at Charlton, Herts, England, in 1813, and early developed a talent for mechanical invention. He suggested the practice of dating the stamps affixed to documents to prevent their fraudulent transfer to new ones, thus saving to the government an immense sum of money. For this valuable suggestion he never received any acknowledgment, though it has been used ever since. During the Crimean War, while engaged in experiments on firing elongated projectiles from 4½-in. smooth bore guns, the idea was suggested to him by Col. Minie, the inventor of the rifle, that something better than cast iron would be required for guns before elongated projectiles could be used for safety. In the words of Sir Henry (Trans. Am. Inst. Mining Engineers, Vol. XIX, p. 814), "this casual observation was the spark that has kindled one of the greatest industrial revolutions that the present century has to record, for during my solitary ride in a cab that night from Vincennes to Paris I made up my mind to try what I could do to improve the quality of iron used in the manufacture of guns." He began at once a series of experiments on the improvement of cast iron by melting it in reverberatory furnaces, and after many months of trial produced a model gun, which he presented to Napoleon III. as the first fruits of his studies of the metallurgy of iron. He then sought for a means of making cast iron malleable while still retaining its fluidity, and finally arrived at the method of decarbonizing it, by blowing air into it, without, as it appears, having any knowledge of the fact that this had been done some years before, although with no commercial success, by William Kelly, of Swanev, Kentucky. In the presence of Mr. Geo. Rennie, the eminent civil engineer, in 1856, he blew a charge of 7 cwt. of pig iron into an ingot of malleable iron, and at his suggestion read a paper at the Cheltenham meeting, Sept., 1856, of the British Association "On the Manufacture of Malleable Iron Without Fuel." The reading of this paper created a sensation throughout the metallurgical world, and within one month Mr. Bessemer was paid £27,000 for license to use his process. A period of repeated failures to make a merchantable product then failed, much to the

disgust of the licensees, but the Swedish ironmasters took it up and succeeded with it on account of the character of their ores, which were better suited to it than the ores of England. Finally, Muslet's invention of the use of spiegeleisen for recarburizing and deoxidizing made the success of the invention possible in England, and Mr. Bessemer, with remarkable mechanical ingenuity, perfected the methods of handling the metal during the operation. The benefits Mr. Bessemer's inventions have conferred upon the world can scarcely be overestimated. While he was not the first discoverer of the pneumatic process, he was an independent discoverer of it, and more able and diligent in making use of the discovery, while he was greatly assisted by Muslet's invention and by the experiments made by the Swedish ironmasters, to his own persistence as an experimenter and genius as an inventor the world owes the successful introduction of the process which rightly bears his name.

Mr. Bessemer reaped a great fortune from his invention, both from license fees and from the income of the steel works in which he was interested. In 1871 he was elected President of the Iron and Steel Institute, and in 1879 was made a Fellow of the Royal Society, receiving the honor of Knighthood the same year. He was an honorary member of the Institution of Civil Engineers, and also of the American Institute of Mining Engineers and the American Society of Mechanical Engineers.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

- CHICAGO ELECTRICAL ASSOCIATION.  
Mar. 18. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.
- THE ENGINEERING SOCIETY OF COLUMBIA UNIVERSITY.  
Mar. 18. "New and Old Systems of Power Distribution in Factories," G. S. Dunn, Secy., Geo. L. Bennett, Columbia University, New York city.
- THE ENGINEERS' CLUB OF PHILADELPHIA.  
Mar. 19. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.
- ENGINEERS CLUB OF COLUMBUS.  
Mar. 19. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.
- TECHNICAL CLUB OF OMAHA.  
Mar. 21. Secy., J. Harry Lawrie, Omaha, Neb.
- ENGINEERS' CLUB OF MINNEAPOLIS.  
Mar. 21. Secy., H. E. Smith, 1629 S. E. 4th St., Minneapolis, Minn.
- ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.  
Mar. 21. Secy., Jas. K. Zollinger, 16 Norton Bldg., Louisville, Ky.
- CIVIL ENGINEERS' CLUB OF CLEVELAND.  
Mar. 22. Secy., Wm. H. Searies, Case Library Bldg., Cleveland, O.
- FRANKLIN INSTITUTE.  
Mar. 22. "The Substitution of Electricity for Steam on Suburban Roads," Dr. Louis Duncan; Mar. 23. "Building Stone," Alexis A. Julien. Secy., Wm. H. Wahl, 15 S. Seventh St., Philadelphia, Pa.
- ENGINEERING ASSOCIATION OF THE SOUTH.  
Mar. 24. Secy., C. B. Wilson, Nashville, Tenn.
- THE AMERICAN SOCIETY OF IRRIGATION ENGINEERS.  
Mar. 25-26. Annual Meeting, Denver, Colo. Secy., John S. Titcomb, 38 Jacobson Block, Denver, Colo.
- INDIANAPOLIS ENGINEERING CLUB.  
Mar. 26. Secy., Edson F. Folsom, Indianapolis, Ind.
- WESTERN SOCIETY OF ENGINEERS.  
Mar. 26. Illustrated lecture on "Mexico," Wm. J. Karner. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.
- AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.  
Mar. 30. Secy., R. W. Pope, 26 Cortlandt St., New York city.
- CANADIAN SOCIETY OF CIVIL ENGINEERS.  
Mar. 31. Secy., C. H. McLeod, 112 Mansfield St., Montreal, Can.
- TECHNICAL SOCIETY OF THE PACIFIC COAST.  
Apr. 1. Secy., O. Von Geldern, 810 Market St., San Francisco, Ca.
- CIVIL ENGINEERS' SOCIETY OF ST. PAUL.  
Apr. 4. Secy., C. L. Annan, City Engineers' Office, St. Paul, Minn.
- ENGINEERS' SOCIETY OF WESTERN NEW YORK.  
Apr. 4. Secy., H. J. March, Library Bldg., Buffalo, N. Y.
- ENGINEERS' CLUB OF ST. LOUIS.  
Apr. 6. Secy., Richard McCulloch, St. Louis, Mo.
- AMERICAN SOCIETY OF CIVIL ENGINEERS.  
Apr. 6. Secy., C. W. Hunt, 220 West 57th St., New York city.
- DENVER SOCIETY OF CIVIL ENGINEERS.  
Apr. 8. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Colo.
- ST. LOUIS RAILWAY CLUB.  
Apr. 8. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.
- MONTANA SOCIETY OF ENGINEERS.  
Apr. 9. Secy., Albert S. Hovey, Helena, Mont.
- ENGINEERS' CLUB OF KANSAS CITY.  
Apr. 11. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.
- NORTHWEST RAILWAY CLUB.  
Apr. 12. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.
- NEW ENGLAND RAILROAD CLUB.  
Apr. 13. Secy., Edward L. Jones, P. O. Box 1158, Boston, Mass.
- BROOKLYN ENGINEERS' CLUB.  
Apr. 14. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.
- AMERICAN WATER-WORKS ASSOCIATION.  
Apr. 19. Secy., Peter Milne, 95 William St., New York city.
- ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.  
Apr. 19. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.
- WESTERN RAILWAY CLUB.  
Apr. 19. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.
- BOSTON SOCIETY OF CIVIL ENGINEERS.  
Apr. 20. Secy., S. E. Tinkham, City Hall, Boston, Mass.
- WESTERN FOUNDRYMEN'S ASSOCIATION.  
Apr. 20. Secy., A. Sorge, Jr., 1020 Monadnock Block, Chicago, Ill.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.

Apr. 20. Secy., Frank H. Olmsted, Los Angeles, Cal. SOUTHERN AND SOUTHWESTERN RAILWAY CLUB. Apr. 21. Secy., F. A. Charplot, Macon, Ga. ENGINEERS CLUB OF CINCINNATI. Apr. 21. Secy., J. F. Wilson, P.O. Box 333, Cincinnati, O. NEW YORK RAILWAY CLUB. Apr. 21. Secy., W. W. Wheatly, 168 Montague St., Brooklyn, N. Y.

ILLINOIS STREET RAILWAY ASSOCIATION.

May 18. Annual meeting. Secy., C. K. Minary, Springfield City R. R., Springfield, Ill.

AMERICAN INSTITUTE OF ARCHITECTS.—The Pittsburg chapter of this Association will hold an exhibition of architectural drawings and sketches at the Carnegie Art Gallery, Pittsburg, Pa., from May 2 to 31. The date for closing entries is March 23.

ENGINEERS' CLUB OF BEADLEY INSTITUTE.—At a meeting of this Club, held at Peoria, Ill., on March 4, the following officers were elected for 1898: President, Lawrence S. Simpson; 1st Vice-President, O. K. Trout; 2d Vice-President, Oscar Schimpf; Secretary, Chas. A. Bennett; Treasurer, Samuel Adelman.

NEW ENGLAND WATER-WORKS ASSOCIATION.—A meeting was held at Young's Hotel, Boston, on Wednesday, March 9, at which about 100 members and guests were present. After an excellent lunch a paper on "Slow Sand Filtration at Poughkeepsie, N. Y.," was read by Mr. Chas. E. Fowler, Superintendent of Water-Works at that place. Some of the main points of the paper and the discussion that followed it, are given in the main part of this issue.

ASSOCIATION OF MASTER PLUMBERS OF NEW YORK STATE.—At the annual convention of this Association, held at Binghamton, N. Y., on March 9, the following officers were elected for the ensuing year: President, H. F. Westcott, Albany; Secretary, John E. Dugan, Albany; Treasurer, A. H. Brown, New York city; Delegates—B. J. O'Donnell, Syracuse; W. H. Barnes, Troy; George Cropper, Binghamton. The convention will be held at Auburn next year.

CENTRAL RAILWAY CLUB.—The regular meeting of this club was held at the Hotel Iroquois, Buffalo, N. Y., March 11. Reports from committees were received on the following subjects: "The Best Method of Keeping a Boiler Clean, including the Valve of Blow-Off Cocks;" "Specifications for Air Brake Hose;" "Revision of the Rules of Interchange;" "Springs for Freight Car Trucks." The club visited Depew on a special train and spent some time inspecting the various plants at that place.

FRANKLIN INSTITUTE.—A regular meeting of the Mining and Metallurgical Section was held at Philadelphia, Pa., on March 9, at which Mr. Robert W. Lesley read an interesting paper on the "Development of the American Portland Cement Industry." Details of the history, manufacture and economic prospects of the industry were given. Such statistics as were given were made interesting by the attractive method with which the lecturer treated his subject. J. S. de Beunville, Secy. Min. and Met. Sec.

CIVIL ENGINEERS' CLUB OF CLEVELAND.—The annual meeting of this Club was held at Cleveland, O., March 8. The report of the executive committee showed a total membership of 149 active, 22 associate, 14 corresponding and 5 honorary, a total of 190, of which 165 are resident members. During the year, 15 meetings were held with a total attendance of 524 members and 86 visitors. The treasurer's report exhibited a balance of \$723. The following officers were unanimously elected: President, Frank C. Osborn; Vice-President, Samuel T. Wellman; Secretary, William H. Searles; Treasurer, Walter Miller; Librarian, Wm E. Reed; Directors to serve one year, Joseph R. Oldham and Samuel T. Dodd; to serve two years, Ralph A. Harman and Charles W. Hopkinson. Mr. James Ritchie, the retiring president, made an informal address, calling attention to the state of the Club, and referring to those members who had died during the past year. He called attention to the Lorain & Cleveland Electric R. R. recently completed, which he described as well built and equipped. Very high speeds were made, the schedule time of some of the trains being 19 miles in 28 minutes, including stops. The remainder of his remarks were devoted to a description of the new shipyard at Lorain, built for the Cleveland Ship Building Co. The plans of the yard, dry-dock and principal buildings were described in some detail. One of the members, Mr. Oldham, stated that this shipyard was doubtless the most efficient in the world, owing to the fact that it had been completed at one time from careful designs, and had not been built by additions. The Club will receive an invitation to be present at the first launching, which will probably take place some time in April. Wm. H. Searles, Secy.

RAILROAD SIGNALING CLUB.—At the March meeting of the Club, held at the Duquesne Club, Pittsburg, March 8, 1898, there were 30 members present. The meeting was called to order by Mr. Elliott, Vice-President. There was very little discussion on the paper read at the last meeting, entitled "The Signal Engineer." The paper of the day, entitled "The Operation and Maintenance of a Block System on a Single Track Railroad, as Used on the C., N. O. & T. P. R. R.," (Eng. News, March 10), written by Mr. W. A. D. Short, was read and discussed. The principal points brought out in the discussion were:

Questioning Rule 4, which requires that "Trains of an inferior right approaching a meeting point within the limits of a block, may pass the red signal and proceed to the siding when under full control;" the opinion of the majority

of the members was that signals should be re-located so that this rule would not be required, it being a bad plan to have trains run by a signal at danger under any circumstances.

The point in regard to the rule requiring the engineer to observe the signal change to danger before he passed it was fully discussed. The sense of the meeting in this regard was, that with the automatic signals in use to-day, this was an unnecessary precaution, and that full confidence should be placed in the proper working of the signals; that the disadvantages of requiring the engineer to stop balanced the protection to be afforded by his using caution in going through the block, so that it was very doubtful if there were not more danger in taking the indication as a danger signal in place of the clear signal.

The use of lead-covered copper wires for hurrying in the ground was, from the experience of the members, thought to be very unsatisfactory, owing to the eating away of the lead from the chemical action of acids in cinders and in certain soils.

A discussion in regard to insulated joints brought out a very favorable opinion of the members in regard to the excellent service to be obtained from the Weber joint.

The protection of electric street railway crossings of steam railroads was taken up and informally discussed. The general opinion seemed to be that a complete interlocking plant was necessary for efficient protection. It was thought that the device in use at Cleveland and some few other places, where the conductor is required to go ahead and by pulling a lever to close a derailing switch to allow the car to go over the crossing, was a very poor one, as there was no certainty that the conductor would use ordinary caution and assure himself that there was no train approaching. Although this system may relieve the steam railway of any indemnity should an accident occur, still the fact of the matter is, that the accident would not be prevented, as would have been the case had a complete interlocking plant been put in.

In the evening a complimentary banquet, tendered by Mr. E. H. Goodman, of the Union Switch & Signal Co., at the Duquesne Club, proved very enjoyable.

Arrangements were perfected by which the Pennsylvania Railroad would put a train at the disposal of the club on Wednesday, by which trips would be made to the Carnegie plant at Homestead, the Westinghouse Air-Brake works at Wilmerding, the Westinghouse Electric works at East Pittsburg, and the Union Switch & Signal Co.'s works at Swissvale. Earl M. Seitz, Secy.

BOSTON SOCIETY OF CIVIL ENGINEERS.—The annual dinner of the Boston Society of Civil Engineers was held at the Hotel Brunswick, on the evening of March 8. About 150 members and guests were present. After the dinner the President of the Society, Mr. Dexter Brackett, M. Am. Soc. C. E., called upon a number of those present for speeches, introducing each speaker with brief and felicitous remarks.

The first speech was by the Hon. Josiah Quincy, Mayor of Boston, who showed that at least one mayor appreciates the value of the services of engineers. He said that good or bad city government was largely a matter of good or bad engineering. He dwelt at some length upon the need of technical advisers, on the part of municipalities, and told how engineers had been employed by the city of Boston to investigate the methods of garbage disposal.

The next speaker was Mr. Alphonse Pteley, Pres. Am. Soc. C. E. Mr. Pteley outlined the courses leading to the formation and growth of engineering societies, and laid before those present the claims of the American Society of Civil Engineers. He stated that a plan is now under consideration designed to increase the value of the library of the American Society to non-resident members. A correspondence bureau is proposed to that end. About 25% of the membership of the Boston Society are also members of the American Society. Mr. Pteley urged that the balance should consider the advisability of joining, and that those already members should present more papers than they now do, and take a more active part in the discussions.

Mr. James M. Crafts, President of the Massachusetts Institute of Technology, discussed the place of the engineer in modern society, presenting him in a very favorable light.

Mr. Lucius Tuttle, President of the Boston & Maine Railroad Co., said it had always been a source of regret to him that he did not possess that prerequisite of railway management, the training of an engineer. The best railways, he said, do not drive a spike without consulting an engineer, and in case of a good piece of railway work, the question is: "Who was the engineer?" and never "Who was the president or manager?"

Mr. Henry Sprague, Chairman of the Metropolitan Water Commissioners, opened his remarks by saying that perhaps the introduction of Cochituate water in Boston in 1848 had something to do with the formation of the Boston Society of Civil Engineers in that year. As engineers had been so highly praised by the previous speakers he thought it best to speak of some of their faults. One of the greatest of these, he said, is their assumption. They are always ready to solve any problem. Doubtless they would undertake to provide communication with the moon if capitalists would provide the wherewithal.

Mr. John C. Trautwine, Jr., Assoc. Am. Soc. C. E., Secretary of the Association of Engineering Societies and Chief of the Bureau of Water of Philadelphia, opened his remarks by saying that he came near being robbed of the pleasure of attending the dinner by the threatened reappearance of the Philadelphia water snake, after it was supposed to have been killed (the reference being to the proposed water con-

tract, discussed editorially in our issue of March 3). He wished to felicitate Boston people and engineers on having their water supply in the care of eminent engineers. The Philadelphia legislative body voted down a motion to refer the proposed water contract to the Department of Public Works. You have 200 engineers, he said, connected with the Metropolitan Water System, while there are but two engineers connected with the water supply of Philadelphia.

Besides the above, addresses were made by Messrs. Henry Sherman, of the Massachusetts Civil Service Commission; Woodward Emery, Chairman of the Board of Harbor and Land Commissioners, and Lieut. J. S. Sewell, U. S. Engineer Corps, the latter speaking on "Fortifications for Harbor Defence."

The menu card for the dinner was enlivened by reproductions of two drawings by Mr. R. F. Ewell, a member of the Engineering Corps of the Metropolitan Water Supply.

NEW PUBLICATIONS.

LITERARY MAGAZINES.—In the March "North American Review" Commodore Geo. W. Melville writes on "Our Future on the Pacific." He urges that greater provision should be made for coast defense on the Pacific coast and our naval strength there should be increased. The "Popular Science Monthly" has an illustrated paper on "The Great Sierra Nevada Fault Scarp," which describes the geological structure of that country of high mountains and deep valleys that lies along the eastern side of California and the western side of Nevada. In the same magazine Prof. Angelo Heilprin has a very entertaining paper on "Aspects of Nature in the Sierra." Some of our readers may remember that Prof. Heilprin formed one of Lieut. Peary's party, and it is interesting to note that an explorer can endure successfully both Arctic and Tropic climates. The "Review of Reviews" has a long article on the rush to the Klondike, with illustrations from photographs, and its usual excellent discussion of political questions of the day, here and abroad. In the "Atlantic Monthly" Francis C. Lowell writes on the "Municipal Service of Boston," and critically reviews the record of municipal government in that city. He concludes that Boston is on the whole as well governed probably as Birmingham or Glasgow, and better governed than New York or Chicago. Our own opinion is that Mr. Lowell does not give credit enough for the success in municipal administration which has been attained in Boston. With all its defects, it is probable that Boston's municipal service is distinctly in advance of that of any other large city in this country.

In "Harper's" the manoeuvres in the sham battle of the New York militia at Van Cortland Park last summer are described by Franklin Matthews. In the "Century" Mr. John R. Proctor, the well-known geologist, has an interesting description of the Mammoth Cave of Kentucky. The journey to the Klondike is described by two writers, one telling of the trip via the Yukon River and the other of the route taken by most of the army of prospectors over the mountain passes. Prof. Riebard T. Ely writes on Fraternalism vs. Paternalism in government, and we heartily commend his discussion to those who are in the habit of objecting to this or that proposed action by states or cities or the general government on the ground that "it savors of paternalism."

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Table with columns: Bids to be opened, Work, Place, and See Eng. News. Includes entries for paving, electric lighting, school buildings, water pipes, and various construction projects across different states and cities.

Mar. 22. Steel bridge, Albany, N. Y. ....Mar. 17  
 Mar. 22. City hall plans, Barre, Vt. ....Mar. 17  
 Mar. 22. Electric lighting, etc., White Plains, N. Y. ....Mar. 10  
 Mar. 22. Ditch (10 miles), Princeton, Ind. ....Mar. 10  
 Mar. 22. Steel bridge, Ocean, N. Y. ....Mar. 10  
 Advertis'd, Eng. News, Mar. 10 and 17.  
 Mar. 22. Water franchise, etc., Utica, Ill. ....Feb. 24  
 Advertis'd, Eng. News, Feb. 24 and Mar. 3.  
 Mar. 22. Water-works, Greenwood, S. C. ....Feb. 24  
 Advertis'd, Engineering News, Feb. 24.  
 Mar. 22. Electric light franchise, Utica, Ill. ....Feb. 24  
 Advertis'd, Eng. News, Feb. 24 and Mar. 3.  
 Mar. 22. Electric lights, Greenwood, S. C. ....Feb. 24  
 Advertis'd, Engineering News, Feb. 24.  
 Mar. 23. Stone and cement, Fort Hancock, N. J. ....Feb. 24  
 Advertis'd, Eng. News, Feb. 24 to Mar. 17.  
 Mar. 23. Light-house dwelling, Philadelphia, Pa. ....Feb. 24  
 Advertis'd, Eng. News, Feb. 24 and Mar. 3.  
 Mar. 23. Engine house, Oakland, Cal. ....Mar. 10  
 Mar. 23. School building, Springfield, Mass. ....Mar. 10  
 Mar. 23. Paving, Binghamton, N. Y. ....Mar. 10  
 Advertis'd, Eng. News, Mar. 10 and 17.  
 Mar. 23. Dike (18,600 cu. yds.), Clinton, Mass. ....Mar. 17  
 Mar. 23. Dredging, Buffalo, N. Y. ....Mar. 17  
 Mar. 23. Shore protection, etc., Cleveland, O. ....Mar. 17  
 Mar. 23. Garbage disposal, Buffalo, N. Y. ....Mar. 17  
 Mar. 24. Quarrying stone, Saratoga Springs, N. Y. ....Mar. 17  
 Mar. 24. Park work, Philadelphia, Pa. ....Mar. 17  
 Mar. 24. Sewers, Philadelphia, Pa. ....Mar. 17  
 Mar. 24. Water department supplies, Newark, N. J. ....Mar. 17  
 Advertis'd, Engineering News, Mar. 17.  
 Mar. 24. Railway, Dublin, Ireland ....Mar. 10  
 Mar. 24. Water pipe, Norwood, O. ....Mar. 10  
 Mar. 24. Sewage precipitation tanks, Providence, R.I. ....Feb. 24  
 Advertis'd, Eng. News, Feb. 24 to Mar. 17.  
 Mar. 24. Electric light plant, Plum Island, N. Y. ....Feb. 24  
 Advertis'd, Eng. News, Feb. 24 to Mar. 17.  
 Mar. 25. School building, Montclair, Ia. ....Feb. 17  
 Mar. 25. Transmission line poles, Seattle, Wash. ....Mar. 10  
 Mar. 25. Paving, Minneapolis, Minn. ....Mar. 17  
 Mar. 25. Paving and sidewalks, Buffalo, N. Y. ....Mar. 17  
 Mar. 25. Sewer brick, csts., etc., Minneapolis, Minn. ....Mar. 17  
 Mar. 25. Metal work, Oswego, N. Y. ....Mar. 17  
 Mar. 25. Water bonds, Terrell, Tex. ....Mar. 17  
 Mar. 25. Electric light plant, Santiago-de-Cuba ....Mar. 17  
 Mar. 26. Macadamizing, Norwood, O. ....Mar. 17  
 Mar. 26. Bank building, Glencoe, Minn. ....Mar. 17  
 Mar. 26. Disinfecting house, Baltimore, Md. ....Mar. 17  
 Mar. 26. Bonds, Brooklyn, Conn. ....Mar. 17  
 Mar. 26. Cement sidewalks, Bond Hill, O. ....Mar. 17  
 Mar. 26. Pipe sewers, Boston, Mass. ....Mar. 10  
 Mar. 26. Pipe protection, Cincinnati, O. ....Mar. 3  
 Mar. 26. Steam pumps (2), St. Louis, Mo. ....Feb. 24  
 Advertis'd, Eng. News, Feb. 24 to Mar. 17.  
 Mar. 28. Water-works, Holly Springs, Miss. ....Feb. 17  
 Advertis'd, Eng. News, Feb. 17 and 24.  
 Mar. 28. Electric light plant, Holly Springs, Miss. ....Feb. 17  
 Advertis'd, Eng. News, Feb. 17 and 24.  
 Mar. 28. Wharf, etc., Fort Barrancas, Fla. ....Mar. 3  
 Advertis'd, Eng. News, Mar. 3 to 24.  
 Mar. 28. Court house, Decatur, Ga. ....Mar. 10  
 Mar. 28. Brick or block paving, Toledo, O. ....Mar. 10  
 Mar. 28. Macadamizing, Oshkosh, Wis. ....Mar. 10  
 Mar. 28. Court house, Worcester, Mass. ....Mar. 17  
 Mar. 28. Ditch and drains, Brushyfork, Ill. ....Mar. 17  
 Mar. 28. Asphalt paving, Irvington, Ind. ....Mar. 17  
 Mar. 28. Electric railway (5 1/2 miles), Myersville, Md. ....Mar. 17  
 Advertis'd, Engineering News, Mar. 17.  
 Mar. 28. Block paving, Toledo, O. ....Mar. 17  
 Mar. 28. Steamer repairs, New York, N. Y. ....Mar. 17  
 Mar. 28. Water-works, Port Colborne, Ont. ....Mar. 17  
 Advertis'd, Engineering News, Mar. 17.  
 Mar. 29. Track elevation, Jersey City, N. J. ....Mar. 10  
 Advertis'd, Eng. News, Mar. 10 to 24.  
 Mar. 29. Electrical machinery, etc., Washington, D.C. ....Mar. 10  
 Mar. 29. Trunk sewers, Cincinnati, O. ....Mar. 10  
 Mar. 29. County roads (30 miles), Indianapolis, Ind. ....Mar. 10  
 Mar. 29. Model cutting machine, Washington ....Mar. 17  
 Mar. 30. Sewers, Glenville, O. ....Mar. 3  
 Mar. 30. Paving, Wheeling, W. Va. ....Mar. 3  
 Mar. 30. Repairing pier, Charlevoix, Mich. ....Mar. 3  
 Advertis'd, Eng. News, Mar. 3 to 24.  
 Mar. 30. Sewers, Cleveland, O. ....Mar. 10  
 Mar. 30. Pipe sewers, etc., Ann Arbor, Mich. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 and 24.  
 Mar. 30. Electric railway, Buffalo, N. Y. ....Mar. 17  
 Advertis'd, Engineering News, Mar. 17.  
 Mar. 30. Paving (11,000 sq. yds.), Ann Arbor, Mich. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 and 24.  
 Mar. 30. Masonry work, New York, N. Y. ....Mar. 17  
 Mar. 31. Metal work, Wade Point, N. C. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 and 24.  
 Mar. 31. Transmission line franchise, Los Angeles, Cal. ....Mar. 10  
 Mar. 31. Cement, Portland, Me. ....Mar. 10  
 Advertis'd, Eng. News, Mar. 10 to 24.  
 Mar. 31. Removing wreck, Portland, Me. ....Mar. 10  
 Advertis'd, Eng. News, Mar. 10 to 24.  
 Mar. 31. Sewerage system, Newport News, Va. ....Mar. 10  
 Advertis'd, Eng. News, Mar. 10 to 24.  
 Mar. 31. Pipe sewers, Paterson, N. J. ....Mar. 3  
 Apr. 1. Odd Fellows' home, Alton, Ill. ....Mar. 3  
 Apr. 1. Superstructure, etc., Portland, Ore. ....Mar. 3  
 Apr. 1. Water pipe (3.116 tons), St. John, N. B. ....Feb. 17  
 Apr. 1. Boiler plant, heating, etc., Baltimore, Md. ....Feb. 21  
 Apr. 1. Water pipe (12,000 ft.), Seneca Falls, N. Y. ....Mar. 10  
 Advertis'd, Engineering News, Mar. 10.  
 Apr. 1. Water-works, Palmyra, N. Y. ....Mar. 10  
 Advertis'd, Engineering News, Mar. 10.  
 Apr. 1. Electric light plant, Marion, Ky. ....Mar. 17  
 Apr. 1. Curbing (2,000 ft.), Holyoke, Mass. ....Mar. 17  
 Apr. 1. Church building, Zanesville, O. ....Mar. 17  
 Apr. 2. Approaches, Milwaukee, Wis. ....Mar. 17  
 Apr. 2. Brick paving, Evansville, Ind. ....Mar. 17  
 Apr. 2. Macadamizing, etc., Cleveland, O. ....Mar. 17  
 Apr. 2. School building, Brandon, Minn. ....Feb. 3  
 Apr. 2. Dipper dredge, Chattanooga, Tenn. ....Mar. 3  
 Advertis'd, Eng. News, Mar. 3 to 24.  
 Apr. 4. Structural work, Chicago, Ill. ....Mar. 3  
 Advertis'd, Eng. News, Mar. 3 to 17.  
 Apr. 4. Boiler and pump, Fargo, N. Dak. ....Mar. 3  
 Apr. 4. Wharf, franchise, Summerland, Cal. ....Jan. 27  
 Apr. 4. Sewer bonds (\$65,000), Santa Ana, Cal. ....Feb. 24  
 Apr. 4. Court house, Jonesboro, Ga. ....Mar. 10  
 Apr. 4. Gas or electric lighting, Lawrenceburg, Ind. ....Mar. 10  
 Apr. 4. School building, Pipestone, Minn. ....Mar. 17  
 Apr. 4. Water-works, Fort William, Ont. ....Mar. 17  
 Apr. 4. Brick paving, Lancaster, O. ....Mar. 17  
 Apr. 4. Street improvements, Tiffin, O. ....Mar. 17  
 Apr. 4. Electric lighting, Union City, Ind. ....Mar. 17  
 Advertis'd, Engineering News, Mar. 17.  
 Apr. 4. Viaduct, Atlanta, Ga. ....Mar. 17  
 Apr. 5. Electric lighting (5 years), Carbondale, Ill. ....Mar. 17  
 Apr. 5. Deep well pump, De Kalb, Ill. ....Mar. 17  
 Advertis'd, Engineering News, Mar. 17.  
 Apr. 5. Power house, etc., Newark, N. J. ....Mar. 17  
 Apr. 5. Steel water-tower, Odebolt, Ia. ....Mar. 17  
 Advertis'd, Engineering News, Mar. 17.  
 Apr. 5. Stone road, Toledo, O. ....Mar. 17  
 Apr. 5. Lighting bonds, Wilmington, O. ....Mar. 10  
 Apr. 5. County bridges, Dakota, Ia. ....Feb. 17

Apr. 6. River work, etc., Chicago, Ill. ....Feb. 17  
 Advertis'd, Eng. News, Feb. 17 to Mar. 10.  
 Apr. 6. Channel work, etc., Chicago, Ill. ....Feb. 10  
 Apr. 6. Castings, bars, etc., Cincinnati, O. ....Mar. 17  
 Apr. 6. Paving and grading, Cleveland, O. ....Mar. 17  
 Apr. 7. Sewer system, Columbia City, Md. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 and 24.  
 Apr. 7. Sewer bonds (\$31,457), Norwood, O. ....Mar. 17  
 Apr. 7. Granite paving, etc., Cincinnati, O. ....Mar. 17  
 Apr. 7. Bridge (150-ft. span), Kalamazoo, Mich. ....Feb. 17  
 Apr. 9. Ledge excavation, Rockland Harbor, Me. ....Mar. 10  
 Advertis'd, Eng. News, Mar. 10 to 31.  
 Apr. 9. Dredging, Rockland Harbor, Me. ....Mar. 10  
 Advertis'd, Eng. News, Mar. 10 to 31.  
 Apr. 9. Artesian well, Fort Washington, Md. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 to Apr. 7.  
 Apr. 11. Concrete blocks, Duluth, Minn. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 to Apr. 7.  
 Apr. 11. Dredging, Perriwig Bar, Del. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 to 31.  
 Apr. 11. Electric lighting, Canton, O. ....Mar. 17  
 Apr. 11. Highway bridges (2), Chatham, Va. ....Mar. 3  
 Apr. 12. Removing wreck, Davis' Strait, Me. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 to 31.  
 Apr. 13. Sewers, Cleveland, O. ....Mar. 17  
 Apr. 13. Paving, Cleveland, O. ....Mar. 17  
 Apr. 14. Fenders and pile sinks, St. Louis, Mo. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 to Apr. 7.  
 Apr. 14. City hall plans, St. Thomas, Ont. ....Mar. 17  
 Apr. 15. Sewer bonds (\$150,000), Memphis, Tenn. ....Mar. 17  
 Apr. 15. Sidewalks, Mattoon, Ill. ....Mar. 17  
 Apr. 15. Lock and approaches, New Orleans, La. ....Mar. 10  
 Advertis'd, Eng. News, Feb. 17 to Mar. 10.  
 Apr. 18. Brick sewer, Toledo, O. ....Mar. 17  
 Apr. 20. Water-works, Auburn, Ind. ....Mar. 10  
 Apr. 21. Paving (15,000 sq. yds.), Waukesha, Wis. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 to Apr. 14.  
 Apr. 30. Town hall, Singapore, S. S. ....Jan. 13  
 May 1. Plans for sewage disposal, Belper, Eng. ....Dec. 16  
 May 1. Cathedral, Memphis, Tenn. ....Mar. 17  
 May 3. Jail, Dalton, Ga. ....Mar. 17  
 May 3. Steel cells (4), Visalia, Cal. ....Mar. 3  
 May 11. County bridge, Gonzalez, Tex. ....Mar. 3  
 June 1. Electric lighting (10 yrs.), New Orleans, La. ....Feb. 17  
 June 1. Electric railway, Zurich, Switzerland ....Mar. 10  
 July 1. Water power, Madras, India ....Oct. 28  
 No date. Dams (2), North Lube, Me. ....Mar. 17  
 Advertis'd, Eng. News, Mar. 17 and 24.

RAILWAYS.

ADIRONDACK.—Judge Kellogg, of the Supreme Court, Plattsburgh, N. Y., has granted this company's application to extend its right of way from the Indian River Co. at Indian Lake, Hamilton county. The Adirondack Ry. is leased and controlled by the Delaware & Hudson Canal Co. R. H. Brown, Ch. Engr., Albany, N. Y.

ARKANSAS, LOUISIANA & SOUTHERN.—F. H. Drake, Pres., Minden, La., informs us that the surveys have been made and the right of way obtained for this proposed line; the capital necessary for construction has also been secured. The road will run from Sibley, La., on the Vicksburg, Shreveport & Pacific R. R., to Stamps, Ark., a distance of 65 miles. Part of the line is already built and in operation; the work on the balance is being actively carried on and is expected to be fully completed by August. The second contract has been awarded to M. M. Hunt, of Minden. L. N. Polk, Ch. Engr., Minden, La.

ARKANSAS SOUTHERN.—Reports state that this company will soon extend its line from Junction City, Ark., to Port Arthur, Tex., a distance of about 200 miles. C. Henderson, of Junction City, and J. W. Brown, of Camden, Ark., are said to be interested.

BUFFALO, ROCHESTER & PITTSBURG.—William E. Hoyt, Ch. Engr., Rochester, N. Y., writes us that the reports are substantially true which state that this company will probably build from Punxsutawney to New Castle, Pa., to meet an extension of the Lake Erie & Western R. R., so as to form a part of the proposed trunk line from Chicago to New York. Calvin S. Irtree, Pres. Lake Erie & Western R. R. Co., 80 Broadway, New York, is principally interested.

CAMBRIDGE & CHESAPEAKE.—Plans are being perfected for the construction of this railway from Cambridge to Fox Creek, via Church Creek, Madison and Golden Hill, Md., a distance of 40 miles. Pres., Dr. Elias Jones, Baltimore, Md.

CANE BELT.—This railway company was incorporated in Texas, March 8, with a capital stock of \$15,000, to build a line from Columbus to Bonus, Tex., a distance of 15 miles. The incorporators are E. P. Newsome, William Dunovant, W. T. Eldridge, J. B. Newsome, William Thatcher, Perry Clark, O. Green, Rudolph Greenbaum, William Jasper Magee and F. P. Herbert.

CHESTNUT RIDGE.—This company was incorporated in Pennsylvania, March 15, with a capital stock of \$105,000, of which \$2,000 is paid in, to construct a railway between Kunkletown, Monroe county, and Lehigh Gap, Carbon county. It is said that W. W. Booth, of Kunkletown, will superintend the construction. The incorporators are: Pres., Jas. F. Pearson; W. W. Booth, Reuben Frable and William Schmate, all of Kunkletown, Pa.; Geo. H. L. Morton, of Dohbs Ferry, N. Y.

CHIHUAHUA & PACIFIC.—It is reported that W. C. Bradbury & Co., of Denver, Colo., will build the first 125-mile section of the Mexican railway in connection with the Nassau Construction Co., 100 Broadway, New York. Further information may be found in our last issue.

CINCINNATI, HILLSBORO & WELLSTON.—C. Gilliland, Portsmouth, O., informs us that a careful survey has been made for this proposed line from the coal fields at Wellston to Cincinnati, via Jackson, Pikeston, Hillsboro and Milford, O., a distance of 112 miles, and it will be the only direct route to Cincinnati from the coal and iron districts around Jackson. Over 80% of the right of way has been obtained, and arrangements are now being made to secure the necessary capital. Pres., M. McKeehan, Hillsboro, O.; Ch. Engr., P. H. Doyle, Columbus, O.

CLEVELAND & NEWCASTLE.—We are informed that the preliminary surveys have been completed for this new line to be built from Cuyahoga Falls to Youngstown, O., a distance of 75 miles. Contracts will be ready to let some time in April. The line as surveyed has a maximum curvature of 4° and a maximum grade of 26 feet a mile. Geo. L. Bradbury, Vice-Pres. and Gen. Mgr. Lake Shore & Western R. R. Co., 623 Monadnock Block, of Chicago, is interested. J. H. Pirkey, Ch. Engr., Youngstown, O.

COAST RY. OF NOVA SCOTIA.—L. H. Wheaton, Ch. Engr. and Supt., Yarmouth, N. S., informs us that surveys have been commenced for the proposed extension of this railway from Lockport towards Halifax. As reported in our issue of Nov. 4, 1897, this line is projected from Yarmouth to Halifax, following the south coast of Nova Scotia. Location has been completed from Yarmouth to

Lockport, a distance of 97 miles, and 31 miles are already in operation from Yarmouth to East Publico, and 20 miles additional under construction, the work on which is pretty well advanced. Two survey parties have been placed in the field; one at Lockport and the other at Halifax, working to meet each other, and as soon as the location is definitely decided upon work will be sublet. In the local legislature now in session at Halifax, the railway committee have approved an amendment to the charter of this company, providing for a branch from Liverpool to some point in the northern part of Queens County, to take the place of the proposed Nova Scotia Southern Ry., whose charter expired last December. It is expected that the road to Lockport will be ready for operation by the end of this year, and considerable progress made on the line between Lockport and Halifax. Financial arrangements for the completion of this road have been consummated, and a free right of way secured for the entire distance, as well as subsidies from the governments. The contractor for the road is the Nova Scotia Development Co., of Philadelphia, Pa., of which G. Martin Brill is president, and George A. Fletcher, treasurer.

DENTON, DECATUR & WESTERN.—This company, which was recently incorporated in Texas, proposes to build a railway from Denton to the coal fields at Bridgeport, Tex. A further extension to Sweetwater and Plano is said to be contemplated. Pres., R. E. Carswell; First Vice-Pres., J. W. Simmons; Secy., W. A. Miller; Gen. Mgr., W. F. Buchanan, all of Decatur, Tex.

EVERETT & MONTE CRISTO.—Press reports state that work has commenced on the rebuilding of this railway in Washington. The road is 62 miles long and reconstruction on the line to the lime quarry is necessitated by washouts occurring last fall. Pres., F. T. Gates, 26 Broadway, New York; Engr., A. W. Hoyle, Everett, Wash.

GILA VALLEY, GLOBE & NORTHERN.—Bids are asked by this company until March 20, a postponement from March 10, for the grading of between 40 and 50 miles of an extension of this line between Geronimo and Globe, Ariz. Pres., William Garland, 314 Stinson Block, Los Angeles, Cal.

ILLINOIS.—It is announced that 20 miles of railway tracks in this city will be elevated this summer at a cost of about \$8,000,000. The companies are the Pennsylvania Central, Lake Shore & Michigan Southern, Chicago, Rock Island & Pacific, Chicago, Milwaukee & St. Paul, Chicago & Northwestern, St. Charles Air Line (Illinois Central) and the Chicago, Burlington & Quincy. Work on the Chicago & Northwestern Ry. began March 8. The company intends to raise its 3-track roadbed on the Wisconsin division, from Clybourn Junction to the city limits, a distance of five miles. L. H. Evans, Eng. Track Elevation, Chicago, Ill.

KANSAS CITY, PITTSBURG & GULF.—Press reports state that the construction of the branch of this railway between Pattonsburg, Mo., and Kansas City, has just been finished. This will complete the Port Arthur system extending from Port Arthur, Tex., to Kansas City, Mo., a distance of 787 miles; from Kansas City to Pattonsburg, Mo., 96 miles; from Pattonsburg, Mo., to Omaha, Neb., 148 miles; from Pattonsburg, Mo., to Quincy, Ill., 163 miles; total mileage of system, including Lake Charles and Wilton branches on the Kansas City, Pittsburg & Gulf, about 1,227 miles. During the last few days eight new engines have arrived and seven more, which have been purchased, will soon follow. The purchase of the Little Rock & Memphis Short Line and the Little Rock, Hot Springs & Gulf is said to be contemplated. If the deal is consummated, about 30 miles of new track would have to be constructed. Robert Gilliam, Gen. Mgr., and Ch. Engr., Kansas City, Mo.

KANSAS MIDLAND.—The Commercial Club of Wichita, Kan., is contemplating the extension of this line to Denison, Tex., via Douglas, Dexter, Pawnee, Chandler and Tishomingo. The proposed line will be about 250 miles long. Charles Aylesbury, C. V. Ferguson, J. H. Griffith and C. H. Brooks, of Wichita, are interested. W. P. Homan, Gen. Mgr., Wichita.

KITMAAT.—The legislature of British Columbia has been petitioned to incorporate this company with power to construct and operate a railway from Kitmaat Inlet to a point on the Skeena River, near Kitlaas Canyon, 25 miles distant. Those interested are H. Maitland Kersey, Alexander J. Campbell and Wm. Edgar Oliver, all of Vancouver, B. C.

KNOXVILLE & BRISTOL.—Reports state that this company was incorporated in Tennessee, March 15, with a capital stock of \$1,000,000, to construct a railway between Knoxville and Bristol, Tenn., which are about 110 miles apart.

MAHONING, PA.—The Pennsylvania Construction Co., according to reports, has secured a contract for building a 12-mile extension of this line to a connection with the Beach Creek R. R. This new line will be a part of the Buffalo, Rochester & Pittsburg Ry. system. Wm. E. Hoyt, Ch. Engr., Rochester, N. Y.

MONONGAHELA SOUTHERN.—Press reports state that the Pittsburg, Bessemer & Lake Erie R. R. Co. has bought the right of way, plans, etc., of this railway from Andrew W. Richard B. and Wm. L. Mellon, bankers, of Pittsburg. The proposed route is from the southern end of the Port Perry bridge of the Union railway, up Thompson's Run to its headwaters, down Lick Run past Curry station, on the Baltimore & Ohio R. R., through Finleyville and up Peter's Creek, to a point one mile above Anderson's station and three miles above Finleyville, a total distance of 16 miles south of the terminus at Duquesne. It was found that a grade of less than 45 feet to the mile could be maintained. J. H. Reed, Pres., Pittsburg, Bessemer & Lake Erie R. R. Co., Carnegie Bldg., Pittsburg, Pa.

MONTGOMERY, HAYNEVILLE & CAMDEN.—Sol. D. Bloch, Gen. Mgr., Montgomery, Ala., informs us that the surveys have been made and the right of way obtained for this railway. Negotiations are now pending for capital necessary for construction. The proposed route is from Montgomery to Camden, Ala., a distance of 100 miles. Pres., H. C. Tompkins, Montgomery; Ch. Engr., John A. Milner, Birmingham, Ala.

NEBRASKA, KANSAS & GULF.—Geo. R. Beck, General Counsel Chicago, Milwaukee & St. Paul Ry. Co., Chicago, writes us that he is in no way connected with this newly incorporated railway company as stated in our last issue, and that the Mr. Peck referred to is probably a grain merchant by that name, of Omaha.

NEWFOUNDLAND.—The new government railway contract, referred to at length in our last issue, will be held by W. G. Reid, 30 St. John St., Montreal, Que.

PRESCOTT & EASTERN.—W. A. Drake, Ch. Engr., Prescott, Ariz., informs us that grading on this new line has been begun by the Minnesota & Arizona Construction Co., of which Donald Grant, of Fairhault, Minn., is president. The proposed route is from Junction to the Big Bug Mining District, via Mayer Station, a distance

of 26 2-5 miles, and the object of this line is to develop the gold and copper mining districts, and also nearby onyx and other quarries. Pres., F. A. Murphy, Prescott.

SIoux FALLS, MADISON & ABERDEEN.—This company has been incorporated in South Dakota, with a capital stock of \$2,000,000, to provide a service chiefly for the farming districts between Sioux Falls and Aberdeen, S. Dak. The directors are: C. T. Austin, J. E. Colton, Henry Huntimer, Garland Ellis, H. J. Johnson, A. T. Austin, L. L. Willard, all of Taopi, S. Dak.

THE DALLES, DESCHUTES AND DUFUR.—This company has been incorporated in Oregon, according to reports, with a capital stock of \$300,000, to construct a railway from The Dalles to Biggs. Among the incorporators are E. E. Lytle and W. H. Moore.

WABASH.—Col. S. S. Reynolds, a director of this company, is quoted as saying that the Wabash R. R. will soon be extended from Toledo to Montpelier, O., to connect with a line into Chicago. W. S. Lincoln, Ch. Engr., St. Louis, Mo.

STREET AND ELECTRIC RAILWAYS.

PORTSMOUTH, N. H.—Press reports state that the stockholders of the Portsmouth & Dover R. R. Co., March 7, voted to equip the line with electricity, and to extend it to Newcastle, Rye, North Hampton, Hampton and over the streets of this city. It was also decided to increase the capital stock to \$331,000. The directors were given power to arrange for the building of the road here at once.

SOMERSWORTH, N. H.—The Union Electric Ry. Co. informs us that it does not contemplate the erection of an electric power plant in this city, as reported, but that the United Gas & Electric Co., of Dover, does.

TAUNTON, MASS.—The Providence & Taunton St. Ry. Co. has been granted a franchise to build in this town; work has begun.

NEWPORT, R. I.—It is reported that the Fall River & Stone Bridge St. Ry. Co. and the Newport & Middletown St. Ry. Co. have been consolidated, and that the legislature has granted the new company, to be known as the Newport & Fall River Ry. Co., a franchise for an electric line from the state line to Newport. Work is expected to be completed about June 1. Pres., Stillman F. Kelly, Boston, Mass.; Secy., A. C. Landers, Newport; Directors, Wm. A. Tucker, Boston; Melville Bull, of Portsmouth, R. I., and others.

MERIDEN, CONN.—Francis Atwater, of Meriden, informs us that the contract for constructing and equipping the proposed Meriden, Southington & Compounce tramway has been awarded to Sanderson & Porter, 31 Nassau St., New York. It is expected to complete the work by June. Sub-contracts for material, boilers, engines, generators, cars, snow plows, rails, copper, bridges, masonry, etc., will soon be placed, with a time guarantee of delivery. Eight bridges will have to be constructed, the longest of which will be 75 ft. in length.

BROOKLYN, N. Y.—The state railroad commission, March 11, granted the application of the Van Brunt St. & Erie Basin R. R. Co. to change its motive power from horses to the overhead electrical trolley system. Pres., Michael Murphy; Treas., Wyllys Terry, 264 Van Brunt St.

The Brooklyn Heights R. R. Co. is having new rails laid on about 45 miles of its track, according to reports, at a cost of from \$12,000 to \$15,000. J. C. Breckenridge, Ch. Engr. Track Dept., 168 Montague St.

BUFFALO, N. Y.—Bids are asked by the Buffalo, Hamburg & Aurora Ry. Co., until March 30, for the construction of 19 1-6 miles of electric railway, and also for a power station of 1,400 HP., etc., as stated in our advertising columns. The company was incorporated March 15, 1897, with power to issue \$400,000 in bonds. About \$300,000 will soon be offered in order to provide capital for construction and partial equipment; the estimated cost of construction is \$250,000. It will be necessary to construct three hemlock trestles and ten bridges; 60-lb. T-rails, of 60-ft. length, will be laid on cedar ties. A map of the route and prospectus of the company may be seen at the office of the Engineering News, or complete plans may be obtained by addressing U. L. Upson, Secy. and Gen. Mgr., 1095 and 1097 Elliott Square, Buffalo, N. Y. Pres., W. W. Wheatly, 168 Montague St., Brooklyn, N. Y.

PELHAM, N. Y.—The trustees of this village have given a franchise to the Westchester Electric Ry. Co. to construct and operate a trolley line from the terminus of Third St., at the Mount Vernon city line, through Wolf's Lane to the Boston Post Road, the boundary of Pelham Manor. It is reported that the only part of the proposed route from Mount Vernon to New Rochelle which is now in question lies within the boundaries of Pelham Manor.

UTICA, N. Y.—It is reported that the Utica & Suburban R. R. Co. has filed plans of the proposed extension of its line from Oriskany to Rome. Work will probably begin soon so as to complete the line during the coming summer. Pres., John W. Boyle, of Utica.

FREEHOLD, N. J.—The freeholders of Monmouth county will give a public hearing, March 28, to the application of the Monmouth Traction Co. for the use of the county roads.

MILLBURN, N. J.—The North Jersey Traction Co. has applied to the Millburn township committee for a franchise to build a double and single track line through this place. A public hearing has been ordered for March 25.

TRENTON, N. J.—Judge Robt. S. Woodruff, of Trenton, an incorporator of the Ewing Passenger Ry. Co., informs us that the contracts will be let at once for the building of this new branch of the Trenton Passenger Ry. Co., to be 1 1/2 miles in length. The capital for construction has been secured.

MYERSVILLE, MD.—Bids are asked by the Myersville & Catoctin Electric Ry. Co., until March 28, for the construction of 5 1/2 miles of electric railway, as stated in our advertising columns. Pres., C. F. Flook, Frederick, Md.

PRINCESS ANNE, MD.—A bill has been introduced in the legislature of Maryland to incorporate the Princess Anne & Deal's Island Light, Power & Ry. Co., with a capital stock of \$40,000, to construct an electric railway from Princess Anne to Deal's Island. The line will be about 20 miles long, and will pass through St. Peter's and Dames Quarter. It is reported that the construction of the road will begin immediately after the passage of the bill. Those named as incorporators are: Thomas H. Brock, Wilmer O. Lankford, S. Frank Dashiell, Charles W. Hayman and H. Fillmore Lankford.

WASHINGTON, D. C.—Our correspondent informs us that the Metropolitan Ry. Co. has obtained a permit from the district commissioners to extend its 9th St. line from its present terminus along Florida Ave. to 7th St. and up 7th St. to the car stables.—The Capitol Traction Co. has begun the work of changing its line from a cable to underground electric system. The feed wire ducts are now to be placed. If possible the cable service will be continued until the electric is installed, drip bars, conductors and insulators being placed at night after the cable has stopped. The company intends after this is completed to replace their Love system of underground

traction on U St. by the general electric system, extending it to Rock Creek, the portion outside of the city now being the overhead electric.—A bill has been introduced in the House authorizing the Belt Ry. Co. to extend its lines by the underground system from its present terminus at 11th St. and Florida Ave. out Sherman Ave. and Whitney Ave. to 18th St.

NEWPORT NEWS, VA.—Wm. J. Payne, of Richmond, Va., informs us that the Newport News & Old Point Ry. & Electric Co. has just received a charter and will shortly be organized. It proposes to build 12 miles of electric railway from Newport News to Old Point, via Hampton and Phoebus, Va. These towns will also be supplied with an arc and incandescent lighting system.

CHARLESTON, S. C.—F. H. Knox, Ch. Engr., Charleston & Seashore R. R., 58 Broad St., informs us that the right of way has been secured and the surveys are now in progress for this proposed electric railway from Mount Pleasant to Moultrieville, Sullivan's island and to Isle of Palms, a distance of 7 1/2 miles. Capital for construction has all been secured, and the contracts will be let within the next two weeks and work started immediately thereafter. The project includes a ferry across Cooper River from Charleston to Mount Pleasant, and the construction of new wharves at both places. Pres., Dr. J. S. Lawrence, of Charleston.

TORONTO, O.—H. H. Smith, of Toronto, informs us that surveys have not yet been made for the line which Edward J. McElvaine, of Allegheny, Pa., proposes to build through this village to Empire, a distance of 3 miles; nor has the capital for construction been secured. An ordinance is now before the council granting the desired franchise.

ROCKVILLE, IND.—Thomas N. Rice, of Rockville, informs us that there has been some talk about an electric line for this place, but that no surveys or further steps have yet been taken. Mr. Rice desires to communicate with such persons as are able to give him full information regarding the construction and cost of a street electric system.

VALPARAISO, IND.—The Hobart & Western Electric Ry. Co., incorporated, with a capital stock of \$50,000, has been granted a franchise by the commissioners of Porter county. The line will run from this city to Flint Lake, New Chicago, Hobart, Whiting, East Chicago and Hammond, where it will connect with the Calumet Electric Ry. The incorporators are: F. W. Shoemaker, of Valparaiso; A. P. Morrison, A. J. Smith and Seward Lightner, of Hobart, Ind., and others.

DETROIT, MICH.—The Fort Wayne & Belle Isle Ry. Co. has been reorganized as the Detroit, Fort Wayne & Belle Isle Ry. Co. with a capital stock of \$1,000,000. Among those interested are: Chas. L. Pack, Henry A. Everett and E. W. Moore, of Cleveland, O. Pres., A. B. Dupont.

ROCKFORD, ILL.—The Rockford Ry., Light & Power Co. has been organized at this place, with a capital stock of \$250,000, to construct and operate street railways. The incorporators are: F. A. Poor, M. B. Poor and R. S. Clements.

MILWAUKEE, WIS.—Reports state that Gen. F. C. Winkler, in behalf of the Milwaukee & Waukesha Electric Ry. Co., has applied to the council for a franchise to build in this city, for which privilege the city will be paid \$25,000.

The council, on March 12, granted a franchise to the Milwaukee Electric Ry. & Light Co., to operate its line on Glen Ave., a distance of one mile. Pres., W. N. Cromwell, purchasing agent; W. C. Vanden Berg, 30 Broad St., New York.

FORT SMITH, ARK.—It is reported that Capt. Sam. McLeod has been granted a 10-year franchise for the construction of six miles of electric railway, to be put in operation within twelve months. The franchise also includes the privilege of supplying the city with electric light.

CORSICANA, TEX.—M. M. Bright, of Corsicana, informs us that contracts will be let for building three miles of the proposed street railway. No contracts have yet been awarded. Bids will be received for rails, spikes, ties and other supplies, but not for wire or motive power.

BEAUMONT, TEX.—L. P. Featherstone, of Galveston, Tex., and others were granted a 50-year franchise, March 7, for an electric railway in this city. Work must begin by June 15.

OAKLAND, CAL.—The council street committee has recommended that bids be asked, until April 11, for a franchise to operate an electric line on Franklin St., from Water to Second St.

TORONTO, ONT.—The Toronto Elevated Ry. Co., unincorporated, has made a proposition to the council to build and operate a double track elevated railway throughout the city. Clute, Macdonald, McIntosh & McCrimmon are attorneys for the new company.

ELECTRIC LIGHT AND POWER.

ABINGTON, MASS.—At the next town meeting the question of building a municipal plant will be considered. A. H. Wright, Chn. Selectmen.

MILFORD, MASS.—The Milford Electric Light & Power Co. has submitted a new proposition for lighting this place. The company has prepared plans for a new power station, to cost about \$50,000. It is stated that the company will build if the town favors the proposition. Mgr., R. B. Greene.

SPRINGFIELD, MASS.—It is stated that the United Electric Light Co. is about to make a change in the equipment of the State St. steam plant, to cost about \$10,000. Two dynamos of 7,000 light power each are to be substituted for the 12 1,000-light dynamos which now constitute the plant. The dynamos will be bought of the Standard Electric Co., South Bend, Ind. The change will be made during the summer.

EAST GREENWICH, N. Y.—The contract for constructing a plant in this place has been awarded to E. W. Philo, Salem, N. Y., according to reports. Frederick Fraser is interested.

LOCKPORT, N. Y.—The Niagara, Ontario & Lockport Power Co. and the Lockport Water & Electric Co. will build a power canal from the Niagara River to Lockport, a distance of about 20 miles; estimated cost, \$6,000,000. These companies were recently awarded a contract for furnishing this city with a water supply for 10 years.

NEWARK, N. Y.—Bids are asked until April 5 for constructing a power house and coal sheds on the grounds of the Custodial Army at this place; estimated cost, \$20,000. Steam pipes 400 ft. long will be laid. S. N. Gallup, Chn. Executive Com., Newark, N. Y.

FORT JÉRVIS, N. Y.—The Fort Jervis Power & Light Co., noted last week as incorporated, has been granted a franchise. The plant will be built at once. Capital stock, \$50,000. Geo. A. Elston, Secy. and Treas.

CALDWELL, N. J.—The Newark Electric Light & Power Co., Newark, has been granted a franchise for lighting this borough.

STOCKTON, N. J.—The council has awarded to the Stockton Electric Light & Power Co. the contract for the lighting of this place for five years, at \$80 a light a year for arc and \$57.50 a light a year for incandescent lights. It is stated that a plant will be erected at once.

JEANNETTE, PA.—Millard F. Thompson, Supt. and Treas., Carlisle, Pa., writes us that no plans have been agreed upon for the proposed plant of the Hempfield Electric Light, Heat & Power Co., noted as incorporated last week. As soon as location is decided plans for a power house will be invited and later on bids for the work asked. It will be equipped for both railway and light purposes. It is possible a part of the water power owned by the company will be used.

McKEESPOT, PA.—Press reports state that the McKeesport Light Co. has purchased the plant of the Duquesne Heat, Light & Power Co., for \$25,000. The Duquesne company recently secured a renewal of the contract for lighting the borough streets at \$65 a light a year. The McKeesport company, besides furnishing light to the borough, will now supply the power for the White traction line. It is said the McKeesport plant will be enlarged and the one at Duquesne abolished.

PITTSBURGH, PA.—Local papers state as follows: The stockholders of the Allegheny County Light Co., on March 8, voted to increase the capital stock from \$1,000,000 to \$2,500,000. The company has been making improvements, and intend investing the additional sum in extending the system throughout the city, also to build a number of sub-stations. The East End plant will eventually be abandoned, and all the lights for the East End will be generated at 13th and Pike Sts. In reply to our inquiry in regard to these reported improvements, G. H. Blaxter, Vice-Pres. and Gen. Mgr., wrote us under date of March 10 that the company had made no extensions to the plant recently.

GREENSBURG, PA.—The council of South Greensburg is considering the question of calling an election to vote on the proposition to issue bonds for a plant and water-works. Saml. Lehman, Pres. Council; Jacob Rahl, Clk.

HAGERSTOWN, MD.—It is stated that the Westinghouse Electric & Mfg. Co., Pittsburg, has been asked to submit estimates for a plant, to cost about \$90,000.

WILLIAMSPORT, MD.—This place voted March 7 in favor of issuing \$20,000 in bonds for a plant and water-works. Burgess, Geo. W. Thompson; Comr., E. P. Steffy.

MOUNT OLIVE, N. C.—The plant for this place will have 400 incandescent lights. J. D. Williams may be addressed.

FITZGERALD, GA.—H. H. Kabrick, Cy. Clk., writes us that the city, by an almost unanimous vote, March 8, decided to issue \$33,000 in bonds for a plant and water-works. The date of the sale of the bonds has not been fixed. A. W. Reynolds, Chn. Com.

STARKE, FLA.—An election will probably be called to vote on the question of issuing bonds for a plant and water-works, according to reports.

MONTGOMERY, ALA.—Press reports state that on account of the Mutual Light & Power Co. and the Montgomery Light Co. being consolidated and reorganized, the plant will be improved at a cost of about \$150,000. A new gas plant, two new boilers, a 1,000-HP. engine, etc., will be required. Pres., W. F. Vandiver; Secy., B. S. Maultsby.

GREENVILLE, MISS.—An election will be held March 31 to vote on the question of issuing \$35,000 in 6% bonds for a municipal plant.

ST. MARTINSVILLE, LA.—Bids are reported as wanted by Lahbe & Gardemal for furnishing 300 incandescent and 25 arc lights.

ELIZABETHTON, TENN.—The mayor is reported to have signed the contract for furnishing this place with 400 incandescent lights. The plant is to be completed in 60 days.

MARION, KY.—Bids are asked until April 1 for constructing a plant of 10 arc and 600 16-c. p. incandescent lights for C. S. Nunn & Co., contractors, Marion.

CALDWELL, O.—This place voted, March 12, to issue \$7,000 in bonds for constructing a plant.

CANTON, O.—Bids are asked by the city clerk until April 11 for erecting, maintaining and supplying all material necessary for furnishing the city with light for two years from April 1.

COLUMBUS, O.—Bids are asked until March 24 for constructing a plant. The following machinery will be required: Two compound condensing engines of 125 HP. each, 500 revolutions a minute; or one 250-HP. compound condensing engine, about 200 revolutions a minute, with condensers; two water-tube boilers, 150 HP. each, with straight tubes; one 125-light 2,000-c. p. arc dynamo; three 160-light 1,200-c. p. arc dynamos; two 100-HP. impulse or turbine water wheels; 90 2,000-c. p. arc lamps; 310 1,200-c. p. arc lamps; 1,500 white cedar poles, peeled; 50 miles triple braided weatherproof wire, and cross-arms, pins, insulators, etc. H. M. Lyman, Supt. of Lights, City Hall; J. A. Fanning, Clk. Bd. Pub. Wks.; A. Jacobs, Dir. Pub. Improvements.

TORONTO, O.—The Toronto Electric Light & Power Co. proposes to extend its plant and also to light the town by arc lights, instead of incandescent lights. Gen. Mgr., H. S. Smith.

UNION CITY, IND.—Bids are asked until April 4 for lighting this city for five years, as stated in our advertising columns. J. H. Hornly, Cy. Clk.

CASS CITY, MICH.—An election will be held this week to vote on the question of constructing a plant, according to reports.

PLAINWELL, MICH.—Fred. F. Patterson, Village Clk., writes us that no new plant is proposed for this place, as reported in our issue of last week. The present plant is owned by Robt. Richards.

WHITEHALL, MICH.—The question of issuing \$4,000 in bonds for a plant will soon be voted upon. Edward J. Smith, Pres., writes us that the plant will have 35 arc and 600 incandescent lights.

CARBONDALE, ILL.—Bids are asked until April 5 for lighting this city with electricity for five years, according to reports. F. M. Caldwell, Cy. Clk.

CHICAGO, ILL.—Bids are asked until March 22 for furnishing and setting 162 iron lamp posts on Humboldt Boulevard. E. G. Schubert, Secy. Park Comrs.

FLORA, ILL.—W. A. Fuller, who was granted a franchise in January, writes us that the contracts for furnishing the material and for constructing the plant have been awarded to Fuller & Tristie, 511 Security Bldg., St. Louis, Mo., at about \$15,000.

DODGEVILLE, WIS.—W. H. Earl, Dodgeville, may be addressed in regard to the proposed plant.

ELROY, WIS.—F. S. Bestow, Mayor, writes us that the question of the city constructing a plant is being agitated.

GREEN year fran will be st LA CR reported, ect a p where al Swarthou ALGON plied for ALDEN proposition GLADIE no steps gard to WES being con DULUT mittee, c two aide the Com & Water purchas the pow plants in the ide has been GAYLD that this plant. 1 ST. PA Phenix committe 400 arc l The com King, S Inspecto SUPER for the Banks, C TOPEKA as const HAIRT have been rection n STROJ proposed report WAYN that an tion of f 800 incu vote is f PORT to have with ele year. T six mil HOUS nor def the pro Jones at WOOL applied phone s GRAN Mr. G us that plant, v destroye lights of CLOV stroyed LOS Westing be awar the 108 dam w country, cost, \$5 address SAN I. Tayl 50,000 & Power put in 610 Co. The SAN question E. E. I VENT the tru the que nicipal LAW LEW Light C and to power system, light, cost, al TOR man S the cou CUEI cession some t concess is at p undert parties Chicago 20. M cates a plan propos one mi SAN municipal for this aliation MIL the Mi across ALB struct three-r ridge, MIL

**GREEN BAY, WIS.**—Allen Shewman was granted a 35-year franchise, March 4, for lighting this city. The power will be secured from De Pere.

**LA CROSSE, WIS.**—The West Salem Electric Co., it is reported, will apply for a franchise. It is proposed to erect a plant, the water power to be secured at Neshonoc, where about 2,000 HP. can be developed. Dr. E. S. Swarthout, La Crosse, may be addressed.

**ALGONA, IA.**—O. B. Durdall is reported to have applied for a franchise.

**ALDEN, IA.**—The council is reported as considering a proposition to light this place.

**GLADSBROOK, IA.**—G. S. Wilbur, Mayor, writes us that no steps are likely to be taken in the near future in regard to a plant, as reported in our issue of last week.

**WEST POINT, IA.**—The question of building a plant is being considered, according to reports.

**DULUTH, MINN.**—The council has appointed a committee, consisting of Mayor Truesden, the city engineer, two aldermen and two private citizens, to negotiate with the Commercial Light & Power Co. and the Duluth Light & Water Co., the latter operating in West Duluth, for the purchase of their franchises. The committee is also given the power to draw plans and prepare to parallel both plants in the event that the price asked does not meet the idea of the committee. An appropriation of \$2,000 has been made to employ experts.

**GAYLORD, MINN.**—F. F. Mansfield, Mayor, writes us that this place voted, March 8, in favor of constructing a plant. Plans and estimates will be prepared at once.

**ST. PAUL, MINN.**—Gustav Willius, Jr., Elect. Engr., 511 Phoenix Bldg., writes us that the council has appointed a committee to prepare plans and specifications for a plant of 450 arc lights of 2,000 c. p., with 100 extra for emergency. The committee expects to report early next month. Jos. King, Supt. Police Patrol, and F. D. Varnum, Electrical Inspector, are on the committee.

**SUPERIOR, WIS.**—Plans are reported as being prepared for the proposed plant. Mayor Starkweather and E. B. Banks, Cy. Engr., may be addressed.

**TOPEKA, KAN.**—Capt. W. H. Morris, Audr., is reported as considering estimates for a plant for the capitol.

**HARTINGTON, NEB.**—Fred. C. Largen is reported to have been awarded a contract to construct a plant in connection with the water-works.

**STROMSBURG, NEB.**—The construction of a plant is proposed by the business firms of this town, according to report.

**WAYNE, NEB.**—The Secretary of the Council writes us that an election will be held April 4 to vote on the question of issuing bonds for a plant. It will have 15 arc and 80 incandescent lights; estimated cost, \$5,000. If the vote is favorable bids for the work will be wanted at once.

**FORT SMITH, ARK.**—Capt. Samuel McLoud is reported to have been awarded a contract for furnishing this city with electricity for 10 years at \$80 a light of 2,000 c. p. a year. The contract includes a franchise for a street railway six miles long. T. B. Garrett, Chn. Bd. Pub. Affairs.

**HOUSTON, TEX.**—We are informed that neither site nor definite arrangements have been made in regard to the proposed municipal plant. Hugh Hamilton, R. L. Jones and Wm. Long are on the committee.

**WOOLLEY, WASH.**—E. Holland is reported to have applied for a franchise to operate a plant and a telephone system.

**GRANTS PASS, ORE.**—Geo. I. Brown, Secy. and Gen. Mgr. Grants Pass New Water, Light & Power Co., writes us that the plant will be rebuilt at once. The first plant, which had been in existence for eight years, was destroyed by fire last July. The new plant will have 750 lights of 16 c. p.

**CLOVERDALE, CAL.**—The plant in this place was destroyed by fire March 1, at a reported loss of \$7,500.

**LOS ANGELES, CAL.**—Press reports state that the Westinghouse Electric & Mfg. Co., Pittsburg, Pa., may be awarded the contract for furnishing the machinery for the 108-mile transmission plant in Southern California. A dam will be erected across the Kern River in Kern county. About 20,000 HP. will be transmitted; estimated cost, \$600,000. E. W. Linforth, San Francisco, may be addressed.

**SAN FRANCISCO, CAL.**—It is stated that Washington I. Taylor has sold a lot on the Battery near Pacific for \$50,000 to Robert R. Thompson for the Commercial Light & Power Co. It proposes to erect a 2-story building and put in machinery, to cost about \$100,000. The plant at 610 Commercial St. has nearly attained that capacity. The new plant will supply electric light, heat and steam.

**SAN PEDRO, CAL.**—The council is considering the question of granting a franchise for operating a plant to E. E. Peck.

**VENTURA, CAL.**—J. F. Newby, Cy. Clk., writes us that the trustees decided March 9 to call an election to vote on the question of issuing \$20,000 of 40-year bonds for a municipal plant. Up to March 10 no engineer had been engaged. J. S. Collins, Pres. Bd.

**LEWISTON, IDAHO.**—It is stated that the Lewiston Light Co., Ltd., has decided to increase its capital stock and to increase the power of its plant. It will utilize power from Asotin Creek, in Washington, by a 3-wire system, supplying both Lewiston and Asotin, Wash., with light. A new 350-HP. dynamo will be used; estimated cost, about \$20,000. Pres., D. M. White.

**TORONTO, ONT.**—The fire and light committee, Alderman Sheppard, Chn., is reported to have recommended the council to ask for bids for furnishing cheaper power.

**CUERNAVACA, MEX.**—Press reports state that a concession for the establishment of a plant in this city was some time ago granted to Dr. Ignacio Ortiz Corboda. The concession is for a period of 20 years. This gentleman is at present endeavoring to secure capital to develop the undertaking. He has two propositions pending—one from parties in Mexico and another from John W. Ebert, of Chicago, Ill. The latter has an option that expires March 20. Mr. Ebert has recently stated that if he and associates take up the business they will be in the market for a plant to cost about \$50,000. The water power for the proposed plant will be obtained at Atocumulco, situated one mile from the city.

**SANTIAGO DE CUBA, CUBA.**—Bids are asked by the municipality, until March 26, for furnishing and erecting for this city a complete plant, according to reports. Population (1890), 72,000.

#### BRIDGES.

**MILFORD, CONN.**—A. B. Hill, C. E., informs us that the Milford St. Ry. Co. will construct a plate girder bridge across the Wopoway River.

**ALBANY, N. Y.**—Bids are asked until March 22 for constructing a steel bridge, approaches, tower, etc., on the three-mile level of the Champlain Canal. Geo. W. Aldridge, Supt. Pub. Wks.

**BRIGHTON, N. Y.**—A bill has been introduced in the assembly authorizing the construction of a steel lift bridge over the Erie Canal, to cost \$25,000.

**BUFFALO, N. Y.**—The proposed straightening of Buffalo Creek, noted elsewhere, will include the construction of four bridges.

**ILION, N. Y.**—A contract has been awarded to John Towney, Schenectady, N. Y., at \$4,938, for constructing an iron bridge over the Erie Canal, between Ilion and Frankfort.

**PLATTSBURG, N. Y.**—The Groton Bridge & Mfg. Co., Groton, N. Y., has been awarded a contract to repair the Catherine St. bridge, at \$1,600.

**UTICA, N. Y.**—Mr. Mason has introduced a bill in the assembly to appropriate \$18,000 for constructing a bridge over the Erie Canal at Schuyler St.

**WATERVLIET, N. Y.**—Assemblyman Stedman has presented a bill authorizing the construction of a hoist or lift bridge over the canal at 19th St.

**TRENTON, N. J.**—T. H. Furman, Dir. Bd. Chosen Freeholders, Lawrence, informs us that the New Jersey Steel & Iron Co., Trenton, submitted the lowest bid March 8 to construct a low trestle river bridge over Eight-Mile Run Creek on the Rosedale Road in Lawrence township, at \$430.

**SCRANTON, PA.**—An ordinance is before the council to permit the Scranton St. Ry. Co. to construct a viaduct over the Delaware, Lackawanna & Western R. R. tracks at Lackawanna St.

**ATLANTA, GA.**—Bids are asked until April 4 for constructing the steel and masonry work for the Mitchell St. viaduct, according to reports; estimated cost, about \$50,000. Dr. J. D. Turner, Chn. Com.; R. M. Clayton, Cy. Engr.

**BRECKENRIDGE, O.**—A bill is before the legislature to authorize the county to issue \$150,000 in bonds to construct a bridge 200 ft. long over the river, canal and railway tracks.

**CINCINNATI, O.**—The board of aldermen has referred the question of constructing a new bridge to replace the old one at Queen City Ave. to H. J. Stanley, Cy. Engr.

**CLEVELAND, O.**—Bids are asked by the board of park commissioners, until March 23, for constructing nine steel bridges; surety, \$5,000. C. W. Pratt, Jr., Ch. Engr.

**COLLINGSWOOD, O.**—Reports state that plans and specifications have been completed for the construction of the proposed viaduct, 800 ft. long, over the Lake Shore R. R. tracks, to cost about \$40,000.

**ST. CINCINNATI, O.**—John L. Means has introduced a bill authorizing an election to be called for the purpose of issuing \$150,000 in bonds for constructing a bridge over the Ohio River.

**YOUNGSTOWN, O.**—Reports state that bids will soon be asked to construct the South Ave. viaduct, estimated to cost \$75,000.

**URBANA, ILL.**—Bids are asked until March 22 for the construction of four highway bridges on masonry. Prof. Ira O. Baker, Engr., 702 W. University Ave., Champaign, Ill.

**CARLYLE, ILL.**—Bids are asked by the highway commissioners of Wheatfield township for constructing an iron bridge over Flat Branch; estimated cost, \$1,500.

**CHICAGO, ILL.**—The bridge at State St. will be repaired, at a cost of \$10,000, for use until funds are raised for a new structure.

**MILWAUKEE, WIS.**—G. H. Benzenberg, Cy. Engr., informs us that the question of constructing a rolling bascule bridge at Broadway will not be taken up for several months.

**ROCKVILLE, MINN.**—L. H. Johnson, Minneapolis, has been awarded the contract for a new iron-bridge across the Sauk River, at \$2,788.

**DES MOINES, IA.**—Bids will not be asked for constructing a bridge over Four Mile Creek, as stated in our last issue, on account of the lack of funds. C. D. Boardman, Bd. Pub. Wks.

**LA MOURE, N. DAK.**—Bids are asked until April 4 for constructing a pile bridge, 30 ft. long and 16 ft. wide, across the Cottonwood Creek, and also a 26-ft. span pile bridge over Maple Creek. Charles Ailster, County Audr.

**ATCHISON, KAN.**—A committee is reported to have been appointed by the council to consider a proposition for constructing a bridge over the Missouri River, to be leased by the railway companies; estimated cost, \$50,000.

**TOPEKA, KAN.**—Reports state that two new bridges will be constructed across the Kansas River near this place; estimated cost, \$12,000 each. County Commissioner Rogers may be addressed.

**ST. LOUIS, MO.**—Mayor Ziegenhein is in favor of constructing a bridge across Mill Creek Valley, to be 100 ft. wide and eight blocks long, from Chouteau Ave. to Clark Ave.

**ST. LOUIS, MO.**—The board of public works has passed an ordinance authorizing the construction of a new culvert of stone and brick on Meramec St., near Gravois Ave. Roht. E. McMath, Pres.

**ST. JOSEPH, MO.**—Chas. W. Campbell, Cy. Engr., informs us that the city and county will share the cost of the proposed steel viaduct, 200 ft. long, to be constructed at Sixth St., by the railway companies; estimated cost, \$20,000.

**DENVER, COLO.**—It is reported that the state engineering department will ask the legislature for an appropriation of \$100,000 for the construction of bridges and roads.

**RED BLUFF, CAL.**—Press reports state that a petition is being circulated asking the county supervisors to construct a bridge across the Sacramento River at Jelly's ferry.

**TORONTO, ONT.**—The council is considering a proposition to construct a bridge to the Ashbridge sand bar at Cherry St.

**HAVANA, CUBA.**—Reports state that Capt. Gen. Blanco has ordered the construction of a new bridge to replace the one recently destroyed on the Pando Railroad, to cost \$30,000.

#### BUILDINGS.

**HANOVER, N. H.**—W. C. Edwards, of West Chelmsford, Mass., has been awarded the contract for erecting the Wilder laboratory building and Moor Hall for Dartmouth College, to cost about \$100,000.

**BARRE, VT.**—Plans are asked, until March 22, according to reports, for a new city hall building for the erection of which \$50,000 was voted on Feb. 28. Clayton F. Camp, Chn. Com.

**BARRE, VT.**—Plans are being prepared for a theatre building, to be erected in this city, at a cost of about \$30,000. B. H. Wells may be addressed.

**DERRY DEPOT, VT.**—Mead, Mason & Co., of Manchester, N. H., are said to have received the general contract for erecting a 4-story brick building for the Odd Fellows of this place, to cost \$40,000. Geo. F. Priest, Ch. Com.

**MIDDLEBURY, VT.**—Plans are being prepared for a library building for the Middlebury College; reported cost, \$35,000. Archs., York & Sawyer, 96 5th Ave.; Pres., Ezra Brainerd, LL. D.

**BOSTON, MASS.**—Plans are being prepared for fifteen stations for the new Boston Elevated R. R. Co., to cost \$15,000 each. Arch., A. W. Longfellow, Jr., 1127 Tremont Bldg.—Bids will be asked by the Boston Wharf Co., 274 A St., until about April 15, according to reports, for the erection of two steel warehouses on Summer St. extension, to be occupied by Hecht, Leiberman & Co. and Harding & Covery, wool merchants. Arch., Morton D. Safford, 274 A St., S. B.

**WORCESTER, MASS.**—Bids are asked by the commissioners of Worcester county, until March 28, for the erection of an addition to the county court house; deposit required, \$5,000. Archs., Andrews, Jacques & Rantoul, 8 Beacon St., Boston, Mass.—Fuller, Delano & Frost, 452 Main St., Worcester, inform us that plans have not yet been completed for the new theatre building to be erected in this city for R. C. Taylor, of Worcester.

**PROVIDENCE, R. I.**—A fire in this city, March 7, damaged the 5-story building on Canal St., occupied by the Brownell & Field Co., wholesale grocers. Reported loss, \$150,000.

**ALBANY, N. Y.**—It is reported that Feeney & Sheehan have been awarded the contract for erecting a theatre building on the site of the old American Hotel, for the Empire Theatre Co., of which Ashley W. Cole is president. Estimated cost, \$70,000.

**BROOKLYN, N. Y.**—Reports state that the Brooklyn Heights R. R. Co. contemplates erecting a new car station to hold 600 cars, to cost \$125,000. Pres., Clinton L. Rossiter, 186 Remsen St.

**GENESEEO, N. Y.**—Schrider & Schottner, of Lyons, N. Y., have been awarded the contract for building the new Livingston county court house, at \$20,940.

**NEW YORK, N. Y.**—Plans have been completed, according to reports, for a new synagogue to be erected at 135 and 137 West 123d St., for the Congregation Adath Israel, to cost about \$60,000. Arch., S. D. Cohen, 176 Broadway.

Plans have been filed by Emily L. Felt, 218 West 48th St., for four 5-story brick flat buildings, on 113th St., near Lenox Ave., to cost \$101,000. Archs., Neville & Bagge, 217 West 125th St.; by the city for a 3-story brick court house at 25th St. and Madison Ave., to cost \$338,000. Arch., J. B. Lord, 100 Fifth Ave.; by J. A. Farley, for three 5-story brick dwellings on 108th St., near Riverside Drive, to cost \$50,000. Archs., Jones & Leo, 967 Boulevard; by G. L. Lawrence, 178 Franklin St., for fourteen 3-story brick dwellings on Hamilton Terrace, near 141st St., to cost \$210,000. Archs., Neville & Bagge, 217 West 125th St.; by J. J. Wilson, 60 Liberty St., for a 7-story brick flat and store building at 97th St. and the Boulevard, to cost \$200,000. Arch., C. Steinmetz; by R. J. Blake, 515 Lenox Ave., for four 5-story brick flat buildings at 124th St. and Lenox Ave., to cost \$73,000. Arch., Gilbert Robinson, 215 West 125th St.; by L. & John Brandt, 116th St. and 8th Ave., for four 5-story brick flat buildings at 123d St. and Amsterdam Ave., to cost \$79,000; by Schmuck & Montag, for three 5-story brick flat and store buildings, at 152d St. and Courtland Ave., to cost \$84,000. Arch., Edward Wenz, 1491 Third Ave.; by Harry Fischel for two 6-story brick flat and store buildings at 626, 628, 640 and 642 6th St., to cost \$80,000. Archs., Horenburger & Straub, 122 Broadway; by Bahette Blumenthal, 1840 Third Ave., for five 5-story brick flat buildings on 112th St., near Fifth Ave., to cost \$125,000. Arch., Rudolph Werner, 1286 Vanderbilt Ave.; by John Davis for two 5-story brick flat buildings on 14th St., near Amsterdam Ave., to cost \$60,000. Arch., Henri Fouchaux, 162d St. and Eleventh Ave.; by John Walker, 60 Liberty St., for a 5-story brick warehouse at West Broadway and Spring St., to cost \$125,000. Arch., Franklin Haylies, 51 Bible House; by Weil & Mayer, 35 Nassau St., for five 6-story brick flat and store buildings, on Scammel St., to cost \$125,000. Archs., Schneider & Herter, 48 Bible House.

**POUGHKEEPSIE, N. Y.**—Bids are asked until March 19, for furnishing and installing new steam mains, return mains, pumps and other work, for supplying steam to the several buildings of the female department of the Hudson River State Hospital at Poughkeepsie. Frank B. Low, Pres. Bd. of Mgrs., Poughkeepsie; I. G. Perry, State Arch., Albany, N. Y.

**CAMDEN, N. J.**—Rankin & Kellogg, Architects, 1024 Walnut St., Philadelphia, Pa., inform us that the working plans for the new post office and custom house building to be erected in this city after plans drawn by them, have not yet been completed. The building will be a 2-story fireproof structure of white marble, 83 x 103 ft.

**ELIZABETH, N. J.**—Press reports state that the New York & New Jersey Telephone Co. has purchased a tract of land in East Grand St., adjoining its present headquarters, and that the old buildings thereon will be demolished and a fireproof building erected in its place.

**OIL CITY, PA.**—The Oil City Opera House was destroyed by fire, March 10, causing a reported loss of \$60,000.

**PHILADELPHIA, PA.**—Bids are asked until March 22 for repairs and painting to the Custodian, Post Office and Custom House Building in this city. Address the Custodian.

Bids are being received by Robert A. Pitts, 225 South 3d St., according to reports, for the erection of forty-eight 3-story brick dwellings, to cost \$288,000.

**PITTSBURG, PA.**—The contract will soon be let for the erection of the superstructure of the new armory and auditorium building to be erected on Bedford Ave., to cost \$250,000. Plans are nearly completed. Archs., Kutan & Russell, 111 Fourth Ave.; Pres., Capt. A. E. Hunt.—Reports state that the Pennsylvania R. R. Co. has definitely decided to erect a new 3-story union station and to elevate its tracks at a total cost of about \$2,000,000. Arch., D. H. Burnham & Co., 1142 The Rookery, Chicago, Ill.—H. L. Kreusler has been awarded the contract for erecting the library building for the West End Branch of the Chicago Free Library, at about \$25,000.

**YORK, PA.**—It is reported that plans have been accepted by the court, for the new addition to the court house in this city, to cost about \$200,000. Arch., J. A. Dempwolf, of York.

**BALTIMORE, MD.**—Bids are asked by the supervising architect, Washington, D. C., until March 26, for erecting a disinfecting house for the U. S. Marine Hospital in this city.

**LAUREL, MD.**—Edward Phelps, Mayor, writes us that a new high school building will be erected, to cost \$10,000.

**WASHINGTON, D. C.**—The following bids were received by the commissioners, March 10, for two 8-room public school buildings, to be erected on Marshall St. and at 24th and F Sts., respectively: For the Marshall St. building Jas. L. Parsons bid \$27,978; Baldwin & Peake, \$27,293; Geo. W. Harrison & Co., \$27,147; J. M. Dunn, \$25,500; Gleason & Humphrey, \$25,500; Pavarini & Greer, \$25,500. For the second building Gleason & Humphrey bid \$26,000 and \$1,400 for a retaining wall; Geo. W. Harrison & Co., \$25,240 and \$1,500; J. M. Dunn, \$25,275 and \$1,560; Pavarini & Greer, \$24,420 and \$1,500; Baldwin & Peake, \$23,800 and \$1,363.10.

NEWPORT NEWS, VA.—J. A. Massie, Cy. Clk., informs us that a new school building and a jail will soon be erected here.—We are also informed that plans are being prepared for Winston & Co. for a 4-story theatre and office building, 100x100 ft. It will be provided with a steam-heating plant, an elevator and possibly an electric light plant. Arch., P. Thornton Marye, of Newport News.

PARSONS, W. VA.—An election will be held March 27 to vote on the question of issuing \$30,000 in bonds for erecting a court house for Tucker county.

DALTON, GA.—Bids are asked until May 3, according to reports, for erecting a new jail building. Ordinary, J. Boyle.

MEMPHIS, TENN.—Bids will be asked until about May 1 for the erection of St. Mary's Cathedral, to cost about \$125,000. Archs., Weathers & Weathers, Southern Express Bldg.

LXINGTON, KY.—Clarke & Howard, of this city, was awarded the contract, March 11, for the reconstruction of the court house, at \$134,100. The Combs Lumber Co. bid \$140,000. The new structure is to be completed by March 9, 1890.

MONTICELLO, KY.—A fire at this place, March 11, destroyed the court house, jail and most of the buildings; reported loss, \$75,000.

ZANESVILLE, O.—Bids are asked until April 1 for erecting a new church building for St. Nicholas Church. A. L. Leininger, Rector.

CHEBOYGAN, MICH.—An election will be held here, April 4, to consider the advisability of issuing \$30,000 in bonds for erecting a new court house.

GRAND RAPIDS, MICH.—Hauser, Hayden & Owen were awarded the contract, according to reports, for the erection of a 5-story building for Dudley E. Waters, to cost about \$150,000.

CHICAGO, ILL.—Plans have been prepared for a 4-story store and hall building to be erected for W. W. Peck, at Colorado and Kedzie Aves., to cost about \$40,000. Archs., Julius Speyer & Son, Bryan Block.—The Jonathan Clark & Sons Co., 2 Sherman St., has been awarded the contract for the reconstruction of the 4-story building at 104 and 106 Madison St., according to reports; estimated cost, \$50,000. Archs., Hill & Woltersdorf, 70 La Salle St.

CHICAGO, ILL.—Bids are asked until March 18 for the masonry work, structural iron work, etc., on the new addition to the Englewood High School. Norman S. Patton, Arch. of Bd. of Education, 1117 Schiller Bldg.

ANN ARBOR, MICH.—Bids are asked by the regents of Michigan, until March 17, for the erection of an addition to the Law Building. Secy., Jas. H. Wade; Archs., Spier & Rohn, 1113 Chamber of Commerce, Detroit, Mich.

MILWAUKEE, WIS.—Bids are asked by the supervising architect, Washington, D. C., until April 2, for building the approaches to the U. S. building in this city.—The following bids were received by the supervising architect, March 8, for a boiler plant, low pressure exhaust steam heating and mechanical ventilating apparatus, cold and hot water supply system, etc., and fire pump for the U. S. building at Milwaukee:

Table with 3 columns: Bidder Name, Total Cost, and Time. Includes H. Moore Co., Milwaukee; C. B. Kruse Heat'g Co., Milwaukee; Chafer & Becker, Cleveland, O.; L. J. Mueller Furnace Co., Milwaukee; Thomas & Smith, Cleveland, O.; E. Rutzler, New York; Bayley Heating Co., Milwaukee.

GLENCOE, MINN.—Bids are asked, until March 26, for erecting a bank store and office building, at Glencoe. Address First National Bank of Glencoe.

MINNEAPOLIS, MINN.—Willard J. Hield, Gen. Mgr., Minneapolis, St. Ry. Co., informs us that plans are being prepared for a 1-story brick car-house and wood shop, 130 x 350 ft. No contracts have yet been awarded; the company may put it up itself.—Three 4-story flat buildings, each 57 x 70 ft., will be erected at Second Ave. S and 9th St., at a cost of \$50,000. Arch., A. L. Dorr, 700 Lumber Exchange.—A 5-story brick store will be erected at 403 and 405 Nicollet Ave., by Clancy & Taylor, to cost \$25,000. D. D. Webster, Agent, 107 Guaranty Loan Building.

PIPESTONE, MINN.—Bids are asked by the U. S. Indian Service, until April 4, for erecting a stone school building, with steam heating system. Supt., De Witt S. Harris.

OMAHA, NEB.—The following bids were received by the supervising architect, Washington, D. C., March 9, for tower clock and bell for the U. S. building, Omaha:

Table with 3 columns: Bidder Name, Total Cost, and Time. Includes T. H. Wumet, St. Louis, Mo.; Seth Thomas Clock Co., New York; Johnson Elec. Service Co., Milwaukee; Nelson Johnson, Manistee, Mich.; Joseph Barborck, Iowa City, Ia.; E. Howard Water & Clock Co., N. Y.

—The following bids have been received for the construction of the transportation and agricultural implement building for the Trans-Mississippi and International Exposition: R. C. Strehlow, \$37,775; Westlake Construction Co., \$41,032; William Goidle & Sons Co. (accepted), \$37,440.

ST. THOMAS, ONT.—Competitive plans and specifications will be received, until April 14, for a new city hall to be erected in this city. Richard Sanders, Chn. Com.

TORONTO, ONT.—A fire in this city, March 12, destroyed the warehouses of P. C. Larkin & Co., R. H. Howard and others on Front St.; estimated loss, \$135,000.

WATER-WORKS.

HANCOCK, ME.—The Ishka Springs Water Co. has been incorporated with a capital stock of \$100,000, of which \$125 is paid in. Pres., Edward K. Graves, Waltham, Mass.; Treas., Chas. H. Wooster, Hancock.

BARRE, VT.—It is proposed to construct in the summer two new reservoirs for an increased water supply from Martin Brook, in Williamstown, about seven miles distant; estimated cost, \$50,000. C. S. Currier, Cy. Engr.

BOSTON, MASS.—Bids were asked until March 16 for furnishing 1,181,000 lbs. of No. 1 castings and 80,000 lbs. of No. 2 castings for the water department. John K. Murphy, Water Comr.

BOSTON, MASS.—In about three weeks the Metropolitan Water Board will invite bids for laying about three miles of 36-in. cast-iron pipe and building a 40,000,000-gallon distributing reservoir. As soon as detailed plans can be prepared bids will be asked for three 35,000,000-gallon pumping engines. F. P. Stearns, Ch. Engr.; Dexter Brackett, Engr., in charge of distribution.

NORTH ANDOVER, MASS.—This place voted last week to issue \$80,000 in bonds for constructing works. J. W. Leitch, Clk.

SHARON, MASS.—This place voted last week to issue \$10,000 in bonds for extending the works. D. W. Pettee, Water Comr., writes us that the city does not need anything at present.

NORWICH, CONN.—R. S. Bartlett, Supt., writes us that nothing will likely be done in regard to developing the proposed new supply from Stony Brook until late in the year and possibly not until next year. C. J. Winters, Pres.; Des. Engr., C. E. Chandler.

WATERTOWN, CONN.—F. H. C. Reynolds & Co., 7 Exchange Place, Boston, are reported as canvassing the town with a view to securing takers for the water from the proposed plant, work on which will be begun in April.

BINGHAMTON, N. Y.—The water department is arranging to lay about 12,000 ft. of 6 to 12-in. water pipe this season. The pipe was purchased last year. Supt., Darwin Felter.

COHOES, N. Y.—The water board has applied to Geo. W. Aldridge, Supt. Pub. Wks., Albany, for permission to lay a 20-in. main across the Erie Canal at Orchard St. Supt., A. T. Kniffin.

COLLINS, N. Y.—We are informed that the following bids were received March 9 by F. P. Blackmon, 626 Elliott Square, Buffalo, for furnishing and laying water pipe, hydrants, etc., for a water supply at the hospital: Peter Fruh, Brooklyn, \$5,876; Gratton & Jennings, Buffalo, 5,000; Parker & Randall, Gowanda, N. Y., 5,280; John P. Finegan, Lyons, N. Y., 6,400; Mensch Bros., Buffalo, 5,767; Irschaker & Sons, Buffalo, 5,363; Harley & Stygall, Buffalo, 6,862.

HAVERSTRAW, N. Y.—We are informed that plans are about completed for new gravity works. The question of its construction will be voted upon in April. Des. Engr., Alex. Potter, 137 Broadway, New York; Josiah Felter, Frederick Kieser, Jr., and James Renn compose the committee.

HOLLAND PATENT, N. Y.—This place voted March 15 on the question of building works; estimated cost, \$8,000. J. D. Thompson, Chn. Com.

LITTLE VALLEY, N. Y.—J. J. Volk, Chn. Supervisors, Dayton, N. Y., writes us that the committee will meet about April 1 to decide upon plans for supplying the county home with water, &c., to be secured from a spring 1 1/2 miles distant.

NYACK, N. Y.—This place voted, March 15, against issuing bonds for improving the works or for reconstructing them, as described in our issue of March 3.

ROCHESTER, N. Y.—An appropriation of \$30,000 will be made for extending the mains in certain streets. E. Kuichling, Supt.

SCHENECTADY, N. Y.—A bill has been introduced in the legislature authorizing this city to spend \$97,000 for improving its water-works. Supt., G. T. Ingersoll.

SIDNEY, N. Y.—We are informed that it is proposed by the Sidney Water-Works Co. to lay about five miles of 6 or 8-in. main and build a dam on Guilford Creek. The work will be begun about May 1. Pres. and Des. Engr., Henry W. Clark; Secy., W. E. Barker.

AVALON, N. J.—It is reported that Doyle & Doak, Contractors, 133 South Fifteenth St., Philadelphia, Pa., are receiving estimates on a water-works building to be erected at Avalon for the Avalon Water-Works Co. It will be brick and iron, one-story and basement, measuring 50 x 100 ft. It is to be furnished with a pump capable of pumping 300,000 gallons daily, and will have an Otto gasoline engine, also a water tower 85 ft. high. Following are being bid upon: Valves, gages, hydrants, piping and covering, artesian well, cement and brick-work, painting, etc.

HAMMONTON, N. J.—The council is reported to have called a special meeting to consider the advisability of granting a franchise for works.

NEWARK, N. J.—R. M. Sherrerd, Supt., has recommended the laying of 3 to 20-in. mains in certain streets, to cost \$20,000.

NEWARK, N. J.—Bids are asked until March 24 for furnishing 2,000 tons of water pipe, 100,000 lbs. of specials, valves, hydrants, etc., as stated in our advertising columns. Engr., Morris R. Sherrerd, Water Dept.

PERTH AMBOY, N. J.—The council decided March 11 to reject the bids received recently for furnishing a 4,000,000-gallon pump at Runyon, noted in our issue of last week. The superintendent will prepare new specifications and then new bids will be asked. Councilmen Seaman, Barnekow and Hornsby may be addressed.

ALLEGHENY, PA.—Robt. McAfee, Dir. Pub. Wks., informs us that the following bids were received March 8 for furnishing a 250-HP. boiler and stoker for the Howard St. Station. Engr., Robt. Swan:

Table with 2 columns: Bidder Name and Total Cost. Includes Edge Moor Bridge Works, Wilmington, Del.; Sterling & Co., Barborton, O.; Oil City Boiler Works, Oil City, Pa.; K. Caball, Mansfield, O.; Marietta Boiler Co., Marietta, Pa.

\*Awarded contract; the other bids not according to specifications. Specifications called for two drums, straight tubes, wrought steel heads and wrought steel hand holds. It is proposed to lay 10 to 36-in. mains in certain streets.

GREENSBURG, PA.—The council of South Greensburg is considering the question of submitting to the voters the proposition of constructing works and a light plant. Clk., Jacob Rabi; Pres. Council, Samuel Lehman.

IRWIN, PA.—The question of building municipal works is again being considered by the council. Pop. (1890), 2,500. Councilman Wm. G. Kerr.

LATROBE, PA.—W. A. Johnston, Supt. Latrobe Water Co., writes us that it is proposed to build a reservoir, distributing mains, engine and boiler house, a 300,000-gallon pump, etc. A report states that the improvements will cost about \$60,000.

LEBANON, PA.—Hallock & Kinney, Wheeling, W. Va., who were recently awarded the contract for furnishing this city with 1,000,000 gallons of water daily for an additional supply, will need for the works a wrought iron pipe line, air and gate valves, boilers, air compressor, etc., for a complete air lift pumping plant. Dea, Engr., Jas. Kinney, Jr., Bellaire, O.; Cy. Engr., Geo. W. Hayer.

LEBANON, PA.—Bids will probably be asked at once by the commissioners for setting 52 new fire hydrants in position. Supt., E. Schreff.

MUNCY, PA.—The Muncy Water Supply Co. was incorporated March 9 with a capital stock of \$1,000, of which \$100 is paid in; the capital stock will be increased soon. Incorporators, S. F. Potter, Treas.; C. H. Fogg, W. A. Wilson, Greensburg, Pa.; O. C. Overholt, Scottsdale, Pa., and C. W. Knight, Rome, N. Y.

READING, PA.—Bids are asked until March 22 for furnishing the water department with cast-iron pipe and specials; cast-iron gate boxes; water gages; fire hydrants; corporation cocks; pea coal; oils and grease; packing; hemp and cotton waste; water meters, and laying pipes and appurtenances. Supt. and Engr., Emil L. Neuhling.

WEST CONSHOHOCKEN, PA.—It is reported that the West Conshohocken Water Co. is making surveys for its proposed works. P. D. Wanner, Reading, Pa., may be addressed.

SEAFORD, DEL.—This place voted March 7 to award a contract for works to Sciple & Young, 3d and Arch Sts., Philadelphia. H. L. Phillips and P. A. Shipley may be addressed.

BALTIMORE, MD.—M. J. O'Neill and the Central Traction Co. have been awarded the contract for hauling 7,800 tons of pipe, castings, etc. The following also submitted bids for supplying pipe and castings: Addyston Pipe & Steel Co., Cincinnati, O.; National Foundry & Pipe Works, Scottdale, Pa.; R. D. Wood & Co., Philadelphia; McNeal Pipe & Foundry Co., Burlington, N. J., and Howard Harrison Iron Co., Bessemer, Ala.

FORT WASHINGTON, MD.—Bids are asked until April 9 for sinking an artesian well at this port, as stated in our advertising columns. Lt. L. S. Miller, Q. M., Fort Washington.

HYATTSVILLE, MD.—An election will be held May 2 to vote on the question of issuing \$25,000 in bonds for works and to begin the construction of the proposed sewerage system. Maj. M. V. Tierney and R. E. White may be addressed.

SMITHSBURG, MD.—M. M. Drelbellis, P. O. Box 15, Hamburg, Pa., is reported as preparing plans for works. Population (1890), 500.

WILLIAMSPORT, MD.—This place voted March 7 to issue \$20,000 in bonds for works and a light plant. Burgess, G. W. Thompson; Town Commissioners, J. D. Payne, M. E. Cullen and Alex. McKelvey.

BERRYVILLE, VA.—This place has applied to the legislature for permission to hold an election to vote on the question of issuing bonds for municipal works, according to reports. Population (1890), 1,215.

REIDSVILLE, N. C.—H. E. Knox, Charlotte, N. C., is reported as making surveys for the proposed works. Population (1890), 5,000. R. T. Williams, Mayor.

ATLANTA, GA.—The election to vote on the question of issuing \$200,000 in bonds for extending the mains will be held April 21. Geo. Hiltner, Pres. Water Bd.

FITZGERALD, GA.—H. H. Kabrick, Cy. Clk., writes us that this city voted March 8 to issue \$33,000 in bonds for works and a light plant. The date of the sale of the bonds has not been fixed. A. W. Reynolds, Chn.

STARKE, FLA.—An election will probably soon be held to vote on the question of issuing bonds for works.

MOBILE, ALA.—Geo. G. Earl, 1307 Valence St., New Orleans, La., is reviewing the plans and specifications for the works prepared some time ago. John B. Davis, Vice-Chn. Com., may be addressed.

MARTIN, TENN.—This place voted March 9 to issue \$25,000 in 6% 20-year bonds for works and a light plant. The bonds were sold in January. C. A. Cashon, Redr.

BARBERTON, O.—Hugo Preyer has applied for a franchise for supplying this place with water in opposition to John McNamara, noted in our issue of March 3.

BOWLING GREEN, O.—C. W. Evers, Councilman, writes us that the city will probably vote in April on the question of purchasing the works of the Bowling Green Water Co. If the proposition carries the town will offer for sale \$100,000 of 4% bonds, and will also extend the mains.

CALDWELL, O.—This place voted March 12 to issue \$2,000 in bonds for completing the works, according to reports. It was also voted to issue \$7,000 in bonds for a light plant.

CANTON, O.—The trustees propose to build a small dam, settling basins and to make certain improvements to the pumping station. Supt., F. R. Fife.

CINCINNATI, O.—Bids are asked until April 6 for furnishing the water department with machine shop castings in loam and green sand, furnaces, plain grate bars, special grate bars and fire liners, street valve castings and boxes; also iron pipe and pipe specials, brass castings and brass ferrules; bids, \$2,000, \$50,000, \$1,500 and \$500, respectively. Ch. Engr., W. P. Tharp; Pres. Bd. Administration, Aug. Herrmann.

CLEVELAND, O.—Local papers state that new bids will be asked for furnishing water pipe to cost about \$106,000.—The Forest City Brass Works, Cleveland, submitted the lowest bid March 3 for furnishing stop cock boxes at \$2,387, and stop cocks, etc., at \$2,338; the Michigan Brass & Iron Co., Detroit, submitted the lowest for gate valves, at \$18,858.

DENNISON, O.—We are informed that the Dennison Water Supply Co. proposes to put in a small filter plant. Des. Engr., Jas. H. Harlow & Co., Pittsburg, Pa.

EAST LIVERPOOL, O.—The question of issuing \$16,000 in bonds for a new reservoir will be voted upon at the April election. Supt., Philip Morley.

MADISONVILLE, O.—Arrangements are being made for the immediate sale of the \$2,500 of bonds voted for Feb. 26, of which about \$1,800 will be used for extending the works. T. C. Fineb, Supt.

QUINCY, O.—Ginn & Fisher, Bellefontaine, O., will superintend the construction of the proposed works, according to plans, etc., furnished by them. The works will consist of an engine, pump, standpipe, etc.

WELLSTON, O.—J. F. Cook has been awarded the contract for building a reservoir at \$11,150. The dam will be 430 ft. long, 50 ft. high and 10 ft. wide at the top. E. B. Bingham may be addressed.

TERRE HAUTE, IND.—The Manufacturers' Water Co., noted as incorporated in our issue of last week, has been granted a franchise. The company is composed of members of the Vandavia R. R. and of manufacturing concerns, and is especially organized to supply the railway in this city and the various manufacturing plants with water. Pres., Crawford Fairbanks; Secy. and Treas., H. I. Miller.

MUSKEGON, MICH.—The council is considering the question of purchasing water meters. Supt., Jno. McCullom.

ST. CLAIR, MICH.—The board of public works has been authorized to extend the intake within 200 ft. of the middle ground of the St. Clair River. Supt., C. J. Streit.

ADRIAN, MICH.—The question of submitting to the voters the proposition to issue bonds for municipal works and a light plant is being considered. Alderman Koebis, Chn.

SAULT STE. MARIE, MICH.—It is proposed to construct a new pumping station, at a cost of \$5,000, according to reports. H. C. Thomson, Cy. Engr.

DE KALB, ILL.—Bids are asked until April 5 for furnishing a deep well pump, as stated in our advertising columns. D. B. Brown, Mayor; E. A. Porter, Cy. Clk.

PEORIA, ILL.—The Peoria Water-Works Co. was incorporated in New Jersey, March 7, with a capital stock of \$100,000, of which \$1,000 is paid in; incorporators,

Edwin R. Lancaster, 10 Wall St., New York; Thos. J. Barbour, Brooklyn, N. Y., and Edwin G. Maturin, East Orange, N. J. The present company is in the hands of a receiver. See 1897 "Manual of Am. Water-Works" for further information.

**RICHWOODS, ILL.**—The Richwoods Water Co. has been incorporated in New Jersey with a capital stock of \$100,000, of which \$1,000 is paid in; incorporators, Wm. A. Coop, 120 46th St., New York; John D. Marston, 607 Bedford Ave., Brooklyn, N. Y., and Hubert P. Hatch, East Orange, N. J.

**PLAINFIELD, ILL.**—C. E. Fraser, Pres. Bd. Trustees, writes us that the proposed works for which \$5,200 in bonds were recently voted, will consist of an 80-ft. steel tower, a 60,000-gallon steel tank, 10-H.P. gas engine, a deep well pump. The contracts will probably be made during the first part of April. Mains will be put in by special assessments.

**STREATOR, ILL.**—The Streator Aqueduct Co. proposes to put in a new pumping engine and also to lay a 14-in. main. Pres. C. L. Goodhue, Springfield, Mass.; Supt., D. E. Huggans.

**WYANET, ILL.**—Jas. P. Hall, Pres. Bd. Trustees, writes us that this place does not need works, stated in our issue of last week as being considered. Population, 700.

**OSHKOSH, WIS.**—A. B. Ideson, Mayor, writes us that an election will be held April 5 to vote on the question of purchasing the works of the Oshkosh Water-Works Co. W. W. Lovell, Des Moines, Ia., estimates that it would cost the city \$286,000 to duplicate the works.

**SUPERIOR, WIS.**—Mayor Starkweather has appointed a committee to aid the city attorney in the prosecution of the Superior Water, Light & Power Co. and to annul its franchise. Cy. Engr., E. B. Banks.

**UNION GROVE, WIS.**—Wm. Hardy is reported to have been granted a franchise to furnish a water supply.

**CHARITON, IA.**—Geo. A. Fancher, Cy. Clk., writes us that on March 7 G. W. Alexander, Mayor, was directed to employ an engineer to prepare plans, etc., for works. Population, 4,000.

**MAQUOKETA, IA.**—John Wood, Audubon, Ia., is reported to have been awarded the contract Feb. 28 for constructing the stand-pipe, with foundation, at \$6,773. Fred. Fisher, Pres. Comrs.

**ONEBOLT, IA.**—Bids are asked until April 5 for furnishing the labor and material for constructing a steel water tower and wooden tank, as described in our advertising columns. H. Hanson, Cbn. Com.

**OGDEN, IA.**—It is stated that plans for the proposed works will be prepared at once. H. D. Holmes, Cbn. Com.; H. H. Noyes, Mayor.

**TOLEDO, IA.**—The council will meet March 23 to decide on the meter to be used in connection with the water supply, according to reports. Population (1890), 2,000.

**ELY, MINN.**—It is reported that this place will soon vote on the question of building a stand-pipe and extending the mains, the works at present being only for fire protection. Population (1890), 900.

**OMAHA, NEB.**—Bids are being considered by the Omaha Water Co. for furnishing a new 20,000-gallon pump at the Florence station. The company is also said to have ordered new 36-in. pipe for extending the mains. About \$300,000 will be spent this year in improving the works.

**TECUMSEH, NEB.**—The question of sinking an additional well and of extending the works, etc., will probably be voted on at the spring election. Supt., L. Morrissy.

**STUTTGART, ARK.**—Chas. Williamson is reported to have been granted a 33-year franchise for works.

**HANNIBAL, MO.**—Press reports state as follows: The Hannibal Water Co. has made application for an extension of its franchise for 20 years. The franchise expires next year, and, according to its terms, the city may purchase the works by appraisal, with 10% added to the appraisal value. The company offers to furnish 130 fire hydrants for the sum that it now receives for 99, reduce all water rates to consumers 25% and flat rates 10% for five years and 15% afterward, furnish free water for the park fountain, sprinkling the city parks, water troughs, Home for the Friendless, public library and all city buildings, and to change the purchasing clause so that the 10% on valuation will not be required.

**INDEPENDENCE, MO.**—The question of extending the mains five, setting 35 new hydrants, and extending the franchise of the Independence Water-Works Co. will be voted on at the April election; estimated cost, \$65,000. Supt., R. D. Wirt.

**OREGON, MO.**—We are informed that the following bids were received March 7 for constructing works, as advertised in Engineering News. L. I. Moore, Cy. Clk.; H. T. Aikire, Mayor

B. P. Egan, Nebraska City, Neb. (accepted).....\$18,350  
Chas. A. Stookey, St. Louis.....19,750  
Phoenix Construction Co., Chicago.....19,795  
U. S. Supply Co., Omaha, Neb.....20,297  
Credila & Lovell, Des Moines, Ia.....21,028

**ST. CHARLES, MO.**—Press reports state that the St. Charles Water & Heating Co. has been directed by the committee to remove its works beyond the city limits or to install a filter plant, the supply having been condemned by the board of health. Dr. J. E. Bruere and Dr. J. R. Mudd may be addressed.

**BEEVILLE, TEX.**—Wm. G. Schuwirth & Co., of San Antonio, Tex., are reported to have purchased the works of the Beeville Water Co., and will add extensive improvements to it, and also put in an electric light plant in connection therewith. Work on the plant and improvements will be commenced in a few days.

**CORSICANA, TEX.**—We are informed that only slight additions to the works of the Corsicana Water Co. are contemplated. The improvements will include an increase in the water shed for present reservoir and small extension of service mains. H. J. Haring, Receiver, Tyler, Tex., is now petitioning the U. S. Court for authority to do the work by day labor. Des. Engr., W. M. Elliott, P. O. Box 229, Corsicana.

**CORPUS CHRISTI, TEX.**—Press reports state that the water company is preparing to build a dam in the Merces River, below the pumping station. Secy., M. C. Spann.

**PARIS, TEX.**—Walter C. Dean, Cy. Engr., is making a survey for an additional water supply. An ordinance has been introduced authorizing the issuance of \$60,000 of 40-year 5% bonds to carry on this work.

**TERRELL, TEX.**—Bids are asked until March 25 for the purchase of \$12,000 of 5% 40-year bonds for making improvements to the works, noted in our issue of March 3. M. C. Roberts, Mayor.

**GUTHRIE, OKLA.**—Geo. M. De Groff, Cy. Clk., writes us that the city is sinking a 6-in. test well for an additional water supply. One well is down 94 ft. and furnishes 5,000 gallons a day by artesian and 20,000 gallons a day by the use of a pump. It is probable that the city will sink six more wells. No machinery will be required. H. C. Barney has charge of the work.

**BRUSH, COLO.**—The proposed works and light plant will be built this year, at a cost of about \$12,000, according to reports. Aldermen Waiman and Sherwin may be addressed.

**MANITOU, COLO.**—D. H. Rupp, Secy. and Treas. Report Improvement Society, writes us that there is some talk of an additional reservoir, but it is not thought that the city will make the appropriation. It is not expected that any other extensions will be made, as has been reported.

**NORTHPORT, WASH.**—Surveys for the proposed works are being made, according to reports. The supply will be received from Five Mile Creek.

**SPOKANE, WASH.**—Otto Welle, Cy. Engr., is preparing plans for a new main on the north side for additional water supply. The city last year made a contract for furnishing the army post with 125,000 gallons a day, and this main will be for that purpose.

**TACOMA, WASH.**—Press reports state that, according to a statement of Commissioner Doherty, of the public works department, much of the city's Clover Creek water flume will have to be rebuilt within a few months. Measurements show that of 38,000,000 gallons which flow into the flume at Clover Creek, but 29,000,000 gallons reach the reservoir. The average daily loss is 800,000 gallons, caused by leaks and overflows at points where the flume is too small. The city is now using about 3,500,000 gallons daily. The total advantage of the provisions of the bill and call bond issue elections. Both wish to install sewerage systems and adequate municipal water-works.

**NEVADA CITY, CAL.**—Bids are asked until March 17 for constructing works, to cost about \$60,000. Des. Engr., Fred. M. Miller, Grass Valley, Cal.; Cy. Clk., Thos. H. Carr.

**JOHANNESBURG, CAL.**—Edmund Brydeu has been awarded the contract for laying the first 4½ miles of pipe line for the Squaw Springs Water Co., Fresno, Cal. When the ditch is brought to Johannesburg another contract will be let. J. Perdue has the contract for the reservoir. Work on both contracts has begun. Alva E. Snow, L. L. Cory and W. C. Colson, all of Fresno, are members of the company, which was recently incorporated, with a capital stock of \$100,000.

**PRESCOTT, ARIZ.**—Press reports state that the bill signed by President McKinley on March 4, allowing cities of over 1,000 population within the territories to issue bonds for public improvements, was pushed especially in the interest of Tucson and Prescott, Ariz., which cities will immediately take advantage of the provisions of the bill and call bond issue elections. Both wish to install sewerage systems and adequate municipal water-works.

**FORT WILLIAM, ONT.**—Bids are asked until April 4 for constructing works; estimated cost, \$35,000. Population, 3,500. Ch. Engr., Jno. Galt, Canada Life Bldg., Toronto, Ont.; F. E. Oakley, Secy. Comrs.

**RAT PORTAGE, ONT.**—Specifications are being prepared for the proposed works, and bids will be asked for constructing the works about the end of the month; estimated cost, \$75,000. Engr., J. Chalmers; R. Hall, Cbn. Com.

**PORT COLBORNE, ONT.**—Bids are asked until March 29 for constructing works, as described in our advertising columns. Engr., J. F. Witmer, Buffalo, N. Y.; R. Greenwood, Reeve; Frank D. Nohle, Clk.

**COOLGARDIE, WEST AUSTRALIA.**—A correspondent in Australia informs us, under date of Feb. 14, that the West Australia government, having floated a loan in England, will at once call for bids on the proposed Coolgardie water supply, described in Engineering News of Feb. 10.

**SEWERAGE.**

**ANDOVER, MASS.**—John E. Smith, Secy. Comrs., writes us that the construction of the proposed system, for which \$80,000 in bonds were voted last week, will begin as soon as plans can be completed and contracts let. The system will consist of 6,707 ft. of 24 to 6-in. pipe sewers, average cut 9 ft.; estimated cost, \$75,000. Des. Engrs., McClintock & Woodfall, 15 Court Sq., Boston; Wm. S. Jenkins, Cbn.

**HULL, MASS.**—This place voted last week to construct a sewer to Point Allerton, at a cost of \$7,000. Jas. Jeffries, Clk.

**LONGMEADOW, MASS.**—The question of building a system will be voted upon April 4. W. W. Willard and A. S. Gates are the committee.

**MILTON, MASS.**—This place voted last week to appropriate \$20,000 for constructing a system. Sewer Comr., E. W. Bowditch; Town Clk., H. B. Martin.

**NEWTON, MASS.**—The residents of Newton Upper Falls have asked this city to extend the system to that section of the city. I. F. Kingsbury, Cy. Clk.

**WHITMAN, MASS.**—A committee has been appointed to investigate and recommend plans for a system of surface drainage. George H. Pearson, Town Clk.

**WORCESTER, MASS.**—Bids are asked by the superintendent of sewers, until March 21, for building two brick buildings, 50 x 100 ft. and 10 x 45 ft., at the sewage purification works.—The bids received March 7 for the purchase of \$200,000 of 4% 30-year bonds have been rejected.

**ALBANY, N. Y.**—Bids are asked until March 21 for constructing 12-in. pipe sewers in Monroe St.; two surlities of \$1,000 each. T. J. Lanahan, Clk. Bd. of Contract.

**COXSACKIE, N. Y.**—We are informed that plans for the proposed system will be delivered this week. Engr., Geo. F. Chism, 92 State St., Albany, N. Y. Platt Conroy and S. P. Hallock are on the committee. Clk., A. J. Collier.

**DOLGEBVILLE, N. Y.**—The question of constructing a system was voted upon March 15. Engr., W. H. Collins, Dolgeville; T. H. Rolb, Pres. Sewer Comrs.

**RYE, N. Y.**—Geo. E. Jardwin writes us that the question of constructing a system is being postponed until certain legal difficulties have been solved; estimated cost, \$30,000.

**SEA CLIFF (L. I.), N. Y.**—Morris Simonson, Road Comr., has applied for a franchise to construct a system in this place, according to reports. Village Trustees Combes and Chelborg may be addressed.

**EAST ORANGE, N. J.**—Bids were received March 14 for constructing 7,300 ft. of pipe sewers. W. H. V. Reimer, Township Engr.; S. M. Long, Town Clk.

**JERSEY CITY, N. J.**—Bids are asked until March 21 for constructing about 3,600 ft. of 18-in. pipe, 2,000 ft. of 30 and 24-in. brick sewers, etc. W. A. Toison, Clk. (pro tem) Bd. St. and Water Comrs.

**NEWARK, N. J.**—P. H. Harrison & Son, Newark, have been awarded the contract for constructing a sewer, 10 x 5 ft., under the canal, at \$2,600. The work must be completed by April 10.

**BELLEUEVE, PA.**—Wm. Martin, Cbn. Com., writes us that the plans for a system have been completed. An election will be held to authorize an increase in the bonded indebtedness for constructing the system.

**CHESTER, PA.**—C. M. Black, Mayor, has signed the ordinance authorizing the construction of sewers in two streets. F. W. Harrison, Cy. Clk.

**LEBANON, PA.**—The stockholders of the Pennsylvania Chautauque are reported to have decided to construct a system to cost about \$6,000 at the Mount Getina grounds.

**PHILADELPHIA, PA.**—Bids are asked until March 24 for constructing branch sewers. Thos. M. Thompson, Dir. Pub. Wks.

**PARKERSBURG, W. VA.**—It is proposed to build a sewer 7,000 ft. long in Latrobe St., at a cost of \$6,000. Jno. B. Dunbar, Cy. Engr.

**ATLANTA, GA.**—It is proposed to construct 18 to 8-in. pipe sewers in several streets, at a cost of about \$3,000. W. D. Greene, Cy. Clk.

**MOBILE, ALA.**—Geo. G. Earl, 1307 Valence St., New Orleans, La., is preparing plans for the proposed system. John B. Davis, Vice-Chm. Water and Sewerage Comn.

**COLUMBUS, MISS.**—H. M. Lanier, Cy. Marshal, writes us that this city will vote March 23 on the question of issuing bonds for a system and water-works. Population, 5,653.

**GREENVILLE, MISS.**—The question of building a system is being considered, according to reports.

**MEMPHIS, TENN.**—Bids are asked until April 15 for the purchase of \$150,000 of 4½ to 6% 5 to 30-year bonds for sewers in the annexed district. J. J. Williams, Mayor; W. B. Armour, Secy.—City Engineer Bell is making a survey for the proposed system in the eastern section of the city.

**CAMBRIDGE, O.**—It is proposed to construct sewers in four streets and an outlet sewer at a cost of about \$21,673. Consult. Engr., A. L. White, Wheeling, W. Va.; Cy. Engr., O. M. Hoge.

**CANTON, O.**—The council has passed an ordinance to build a 30-in. brick sewer in East 9th and South Walnut Sts. L. E. Cbapin, Cy. Engr.

**CANTON, O.**—Bids are asked by the city clerk until March 21 for constructing a storm sewer in East 9th St.

**CLEVELAND, O.**—Bids are asked until April 13 for constructing sewers in three streets. Geo. R. Warden, Dir. Pub. Wks.—The following bids were received Feb. 21 for constructing a sewer in Warner Road. August F. Helm, \$13,126; Eli W. Cannell, \$13,396; Ford P. Beers, \$14,740; Campbell Bros., \$15,000; C. F. Kuentz, \$17,485; F. E. Gribben, \$19,963; N. O. Paying & Construction Co., \$21,105; J. Connelly & Son, \$21,363; and Clements Bros. Construction Co., \$22,107. E. A. Roberts, Secy.—The house at Columbus has passed the bill authorizing the construction of a system for the grounds at the Cleveland State Hospital, for making connections with the Cleveland system; estimated cost, \$10,000.

**EAST LIVERPOOL, O.**—John A. George, Cy. Engr., writes us that no steps have been taken in regard to the proposed sewers in District No. 2. The plans are not yet completed. J. G. Lee and H. A. McNicol are on the committee.

**NORWOOD, O.**—Bids are asked until April 7 for the purchase of \$31,437 of 6% 10 to 30-year bonds to pay for constructing sewers in district No. 2. W. E. Weibgar, Clk.

**TOLEDO, O.**—Bids are asked until April 18 for constructing an 84 to 66-in. brick sewer in Falne Ave. L. P. Harris, Cy. Clk.

**WINTON PLACE, O.**—An election will be held April 4 to vote on the question of issuing \$40,000 in bonds for constructing a system. B. C. Vanduzen, Mayor.

**COLUMBIA CITY, IND.**—Bids are asked until April 7 for constructing a system, as stated in our advertising columns; estimated cost, \$60,000. E. K. Strong, Cy. Engr.

**INDIANAPOLIS, IND.**—Bids are asked until March 21 for constructing 15-in. sewers in three streets. M. A. Downing, Pres. Bd. Pub. Wks.

**MARION, IND.**—L. M. Overman, Cy. Engr., will soon submit to the council the plans for the proposed system.

**ANN ARBOR, MICH.**—Bids are asked until March 30 for constructing about a mile of 24-in. pipe sewer, 30 catch-basins, and for about 11,000 sq. yds. of brick paving, as described in our advertising columns. G. F. Key, Cy. Engr.; G. V. Mills, Cy. Clk.

**HOLLAND, MICH.**—Wm. O. Van Eyck, Cy. Clk., writes us that no vote will be taken this year on the proposed system, as reported in our issue of last week. John Kirkhof and Peter Despeller compose the committee.

**CHICAGO, ILL.**—The following bids were received March 7 for building the 12th and 22d St. conduits for the intercepting sewers; L. E. McGann, Comr. Pub. Wks.:

Bidder.	Sections.	
	A, 12th St.	B, 22d St.
Byrne & Shortall .....	\$35,982	*\$65,950
Farley & Green .....	31,740	72,327
Gahan & Byrne .....	35,200	113,750
James H. Roche .....	28,041	79,272
Chicago Star Con. & Dredging Co. ....		92,621
Nash Bros. ....	37,600	73,521

\*Awarded contracts.

**MINNEAPOLIS, MINN.**—Bids are asked until March 25 for furnishing 1,000,000 sewer brick, cement, cast-iron specials and pipe, as may be required by the sewer department during the coming season. F. W. Cappelen, Cy. Engr.; L. A. Lydiard, Cy. Clk.

**WHEATON, MINN.**—The proposed sewer, noted in our issue of March 3, will cost \$3,000. Engr., M. B. Haynes, 201 South Front St., Mankato, Minn.

**ANACONDA, MONT.**—The city clerk writes us that five miles of 10 to 6-in. pipe sewers will be built this year; average cut, 8 ft. J. V. Collins and J. D. O'Brien are on the committee. E. H. McDonald, Cy. Engr.

**INDEPENDENCE, MO.**—The council has been asked to employ an engineer to prepare estimates for the proposed extension of the system. The question of issuing bonds for the work will be voted on at the next election.

**EL PASO, TEX.**—An election will be held in April to vote on the question of issuing \$15,000 of 6% 40-year bonds for constructing a system, and \$5,000 for a city hall.

**SPOKANE, WASH.**—Otto Welle, Cy. Engr., has completed plans for sewers in the Fourth Ward. Councilman J. D. Hinkle may be addressed.—Fife & Conlan submitted the lowest bid March 2 for constructing a new sewer in Sprague Ave., at \$7,800.—It is proposed to construct sewers in Front St. at a cost of about \$32,000, and to repair the Riverside sewer at a cost of \$6,256.

**ROSSLAND, B. C.**—The question of building an outlet sewer into the Columbia River is being considered. Aldermen A. S. Goodeve and C. O. Lalonde may be addressed.

**GUADALAJARA, MEX.**—John H. Foy, Pittsburg, Pa., is reported to have received the contract for constructing the proposed system to have 100 miles of pipe at about \$1,000,000. Engr., C. H. M. Blake, Guadajajara; L. E. Miller, Cape May, N. J., is reported as interested.

**GARBAGE DISPOSAL-STREET CLEANING**

**BUFFALO, N. Y.**—Bids are asked until March 24 for the destruction of the garbage of the city for the term of five years, to commence June 19. R. G. Parsons, Secy. Bd. Pub. Wks.

**PLAINFIELD, N. J.**—The crematory of the Plainfield Sanitary Co. will be sold at auction March 18. Andrew Love, Receiver.

**MANCHESTER, VA.**—It is stated that the board of health is considering bids for the removal of the garbage. Dr. Lawrence Ingram may be addressed.

**MEMPHIS, TENN.**—We are informed that the council is discussing the abolition of the dump boats and the erection in lieu thereof of a garbage crematory. At present there are two dump boats, and all garbage, night soil, etc., is dumped into the Mississippi River, and as there is nearly dead water in front of the city this method of disposing of the filth is detrimental to public health. A report states that the council has decided to buy two plants for \$7,000 each. Dr. Heher Jones, Pres. Bd. Health; J. J. Williams, Mayor.

**STREETS AND ROADS.**

**BOSTON, MASS.**—Bids are asked by the Metropolitan Park Commission, 114 Ames Building, until March 21, for grading and ballasting the Ocean Ave. extension and Revere Parkway. The following estimates have been submitted for paving in East Second St.: Granite blocks, \$40,500; asphalt, \$51,800.

**GLOUCESTER, MASS.**—The highway committee has asked for an appropriation of \$2,500 for purchasing a new stone crusher and for repairing the old one.

**HOLYOKE, MASS.**—Bids are asked until April 1 for furnishing about 2,000 ft. of curbing. M. F. Walsh, Chn. Bd. Pub. Wks.

**NEW BEDFORD, MASS.**—Bids are asked until March 22 for furnishing 30,000 ft. of curbing and 100,000 paving blocks, as stated in our advertising columns. C. F. Lawton, Supt. Pub. Wks.; C. S. Asbley, Chn.; Wm. S. Cook, Clk.

**SPRINGFIELD, MASS.**—The street supervisors have voted to ask for an appropriation of \$85,000 for the maintenance of streets, and \$65,000 for permanent work.

**WALLINGFORD, CONN.**—About \$3,000 has been appropriated for constructing 1,700 ft. of the state road. J. R. Campbell, Councilman, may be addressed.

**ALBANY, N. Y.**—Bids are asked by the board of contract, until March 21, for brick paving, constructing sidewalks, etc., in Monroe St., from North Pearl St. to Cross St. Thos. J. Lanahan, Clk.

**BUFFALO, N. Y.**—Bids are asked by the board of public works until March 25 for asphalt paving in portions of Hanover St., Indiana St., Mohawk St. and South Cedar St., and constructing and repairing sidewalks. R. G. Parsons, Secy.

**COXSACKIE, N. Y.**—Plans have been submitted to the trustees for grading the streets of the village. Engr., G. F. Chism, Albany, Clk.; A. J. Collier.

**SARATOGA SPRINGS, N. Y.**—Bids are asked by the street commissioners until March 24 for quarrying and crushing stone. J. D. McNulty, Clk.

**ROCHESTER, N. Y.**—Resolutions have been passed by the board of aldermen to pave Calceonia Ave., from the Erie Canal to Plymouth Ave.; estimated cost, \$43,800 with asphalt, and \$38,700 with brick.

**SYRACUSE, N. Y.**—Portions of the following streets will be paved with asphalt: Cedar, South, Salina, New Castle, Harrison, Bellevue, Lock and North West Sts.

**TROY, N. Y.**—Bids are asked by the board of contract until March 22 for grading Hawthorne St., south of Pawling Ave. E. Ogden Ross, Secy.

**UTICA, N. Y.**—Clifford Lewis, Jr., Cy. Surveyor, informs us that it is proposed to pave 80,000 sq. yds. with asphalt; estimated cost, \$150,000.

**JERSEY CITY, N. J.**—Bids are asked by the board of street and water commissioners, until March 21, for paving about 1,069 sq. yds. in Fairview Ave. with asphalt.

**LONG BRANCH, N. J.**—This city has voted to issue \$10,000 in bonds for the construction of roads, according to reports.

**PHILADELPHIA, PA.**—Bids are asked by the Fairmount Park Commissioners until March 24 for extending the East Park drive; estimated cost, \$50,000.

**ROANOKE, VA.**—The street committee has recommended the purchase of a stone crusher for about \$1,425.

**ATLANTA, GA.**—Bids are asked by the council until March 21 for asphalt, brick or block paving in Auburn Ave. R. M. Clayton, Cy. Engr.

**NEW ORLEANS, LA.**—Felix Dreyfus, Councilman, 10th Ward, informs us that it is contemplated to pave Chalborne, Canal and Camp Sts. with asphalt for a total distance of over a mile. Bids will probably soon be asked for this work. A. S. Bell, Cy. Engr.

**AKRON, O.**—An ordinance is before the council for brick paving, etc., in Bittman St., from Maple St. to Crosby St. F. C. Wilson, Cy. Clk.; J. B. Weddell, Cy. Engr., has submitted an estimate of \$1,597 for the proposed asphalt paving in East Bloom St.

**BOND HILL, O.**—Bids are asked until March 26 for constructing cement sidewalks. E. W. Sergeant, Village Clk.

**CINCINNATI, O.**—Bids are asked until April 7 for granite block paving, etc., in Butler St., from Front St. to Pearl St. A. P. Butterfield, Clk. Bd. Pub. Wks.

**CLEVELAND, O.**—Bids are asked until April 2 for macadamizing, grading, etc., a portion of West Park cemetery. Wm. J. Akers, Director Dept. Charities and Correction.

**CLEVELAND, O.**—The board of control has authorized plans and specifications to be prepared for the paving of Tennyson St., from South Woodland Ave. to Everts St., with Medina blocks.—It has been resolved by the council to pave a portion of Mandrake St. with Medina blocks.

**CLEVELAND, O.**—Bids are asked by the board of public works until April 6 for brick paving, etc., in portions of 10 streets and grading, curbing, etc., in portions of six streets; also until April 13 for brick paving in 11 streets and stone in six streets. Geo. R. Warden, Dir.

**EAST LIVERPOOL, O.**—The question of issuing \$30,000 in bonds for the improvement of the main highways leading into the city will be voted upon at the spring election. J. A. George, Cy. Engr.

**EVANSTON, O.**—Bids are asked until March 21 for the purchase of \$6,323 in bonds. Wm. H. Knapp, Village Clk.

**LIMA, O.**—The council has adopted a resolution to pave North St. with brick, from Elizabeth St. to Charles St.

**LANCASTER, O.**—Bids are asked until April 4 for paving Main St., from Broad St. to Maple St., with brick. H. T. Meebing, Cy. Clk.

**NORWOOD, O.**—Bids are asked until March 26 for macadamizing portions of Laurence Ave. and Marion St. W. E. Wichgar, Clk.; James A. Steward, Cy. Engr.

**SANDUSKY, O.**—Isaac C. Brewer, Cy. Engr., writes us that the council passed an ordinance, March 9, to pave 1,945 sq. yds. of Wayne St. with brick and 16,795 sq. yds. with asphalt.

**TIFFIN, O.**—Bids are asked until April 4 for improving Water St. and Circular St. J. B. Eberfried, Cy. Clk.

**TOLEDO, O.**—Bids are asked until March 28 for block paving in Boston St., from Collingwood Ave. to Fulton St. Levi P. Harris, Cy. Clk.

**TOLEDO, O.**—Bids are asked until April 5 for constructing a stone road; surety, \$7,000. Wm. M. Godfrey, County Auditor.

**EVANSVILLE, IND.**—Bids are asked until April 2 for brick paving in portions of four streets. Geo. W. Swearing, Clerk.

**INDIANAPOLIS, IND.**—Bids are asked by the board of public works, until March 21, for brick and cement paving, etc., in portions of Annetta St., Massachusetts Ave., Elizabeth St. and Delaware St.

**BLUFFTON, IND.**—The council has passed resolutions for asphalt paving in 15 blocks of streets, at an estimated cost of \$200,000, according to reports.

**IRVINGTON, IND.**—Bids are asked by the city clerk until March 25 for brick, asphalt and macadam paving in several streets, according to reports.

**ELKHART, IND.**—A contract was recently awarded to Chas. D. Budd, St. Louis, Mo., for about \$50,000, for sundry paving in this city.

**SAGINAW, MICH.**—Bids are asked by the board of public works until March 18 for paving in Jefferson Ave., and asphalt paving in Hammond St., from Court St. to Bristol St. Alfred Davies, Clk.

**ANN ARBOR, MICH.**—Bids are asked until March 30 for about 11,000 sq. yds. of brick paving and for constructing about a mile of 24-in. pipe sewer, etc., as stated in our advertising columns. Geo. F. Key, Cy. Engr.; G. V. Mills, Cy. Clk.

**DETROIT, MICH.**—Oscar B. Marx, Chn. St. Com., informs us that nothing has been done in regard to paving Gratiot Ave. with asphalt, and that the matter will be decided this month.

**EAST ST. LOUIS, ILL.**—We are informed that the work, noted in our issue of last week, was for brick paving, instead of asphalt; estimated cost, \$250,000. L. L. Harper, Cy. Engr.

**MATTOON, ILL.**—Bids are asked until April 15 for constructing concrete or brick sidewalks in portions of six streets; estimated length, 25,189 ft.

**GREEN BAY, WIS.**—Bids are asked by the city clerk for the purchase of a 12½-ton steam road roller, according to reports.

**WALKEESHA, WIS.**—Bids are asked until April 21 for about 15,000 sq. yds. of brick paving, as described in our advertising columns. Wm. Powrie, Cy. Engr.

**MINNEAPOLIS, MINN.**—Bids are asked until March 25 for 48,516 sq. yds. of asphalt paving, 61,656 sq. yds. of brick paving, 21,488 sq. yds. of sandstone paving and 13,140 sq. yds. of granite paving. Bids will also be received for all the granite curb and artificial combined curb and gutter to be used during the season of 1898. F. W. Cappelan, Cy. Engr.; L. A. Lydiard, Cy. Clk.

**QUINCY, ILL.**—Ordinances for paving portions of nine streets have been passed by the council.

**OMAHA, NEB.**—Bids are asked until March 25 for grading five streets, Andrew Rosewater, Chn. Bd. Pub. Wks.; and until April 2 for paving the Dodge and Center St. roads with either asphalt, brick or macadam. County Engineer McBride may be addressed. Bids are being considered for the purchase of a 5-ton road roller, a road machine, 4 wheel scrapers, etc. Wm. Coburn, Secy.

**KANSAS CITY, MO.**—Ordinances for the expenditure of about \$100,000 have been passed by the council for paving, etc., on boulevards and highways. Bids are asked for grading three streets and macadamizing six roads; estimated cost, \$70,000.

**SEATTLE, WASH.**—The council has passed ordinances for grading First Ave., which will require about 125,000 cu. ft. of excavation; estimated cost, \$50,000; also for improving four blocks, to cost about \$25,400.

**REDWOOD CITY, CAL.**—An election will be held April 2 to vote on the question of issuing \$310,000 in bonds for the purpose of constructing a road from San Mateo to San Francisco.

**MISCELLANEOUS CONTRACTS.**

**BONDS.**—Brooklyn, Conn.—Bids are asked until March 26 for the purchase of \$28,000 of 4% bonds. John C. Williams, First Selectman.

**DREDGING.**—Manitowoc, Wis.—Bids were received by the council, March 7, for dredging about 200,000 cu. yds. of earth from the Manitowoc River.

**MODEL CUTTING MACHINE.**—Washington, D. C.—Bids are asked by the navy department until March 29 for supplying a model cutting machine. Edwin Stewart, Paymaster-General.

**HEMLOCK TIMBER.**—Ashland, Wis.—A contract has been awarded to Wesley Belknap, Ashland, by the Mellen Lumber Co., to cut 35,000,000 ft. of hemlock timber, according to reports.

**METAL WORK.**—Oswego, N. Y.—Bids are asked until March 25 for the metal work in the construction of two or more iron oil houses. Maj. W. S. Stanton, U. S. Engr., 10th Light-house District, Oswego.

**JETTIES AND SHORE PROTECTION.**—Cleveland, O.—Bids are asked by the board of park commissioners, 76 Euclid Ave., until March 23 for constructing jetties and shore protection at Edgewater Park.

**CONCRETE BLOCKS.**—Duluth, Minn.—Bids are asked until April 11 for constructing the concrete footing blocks of the south pier of the Duluth ship canal. Maj. Clinton B. Sears, U. S. Engr., Duluth.

**STEEL CASTINGS, ETC.**—Washington, D. C.—Bids are asked until March 22 for furnishing the navy department with steel castings and nickel steel forgings. Edwin Stewart, Paymaster-General, U. S. N.

**DITCH AND DRAINS.**—Brusbyfork, Ill.—Bids are asked until March 28 for constructing a main ditch requiring about 37,825 cu. yds. of excavation, and laying 15,900 ft. of 18 to 8-in. drain pipe. Jos. C. Gilbert, Clk.

**MASONRY.**—New York, N. Y.—Bids are asked by the Aqueduct Commissioners, 280 Broadway, until March 30, for constructing retaining and stairway masonry at the new Croton aqueduct. Peter J. Dooling, Pres.

**CANAL WALL.**—Rochester, N. Y.—Reports state that Frederick & Son have been awarded a contract, at about \$6,000, for reconstructing a stone canal wall at Court and St. Paul Sts., to be 200 ft. long and 12 ft. thick.

**FIRE BOAT.**—Pittsburg, Pa.—Plans are being prepared and bids will soon be asked by J. O. Brown, Dir. Pub. Wks., for the construction of a fire boat for which an appropriation of \$40,000 was made three years ago.

**DREDGING.**—Buffalo, N. Y.—Bids are asked by the board of public works until March 23 for dredging the Buffalo River, Blackwell Canal and Peck Slip for their full width to a depth of 20 ft. R. G. Parsons, Secy.

**STEAMER REPAIRED.**—New York, N. Y.—Bids are asked by the department of public charities, until March 28, for repairs and alterations to the steamer "Thomas S. Brennan"; surety, \$3,000. John W. Keller, Pres.

**DREDGING.**—Perryville, Pa., Delaware River.—Bids are asked until April 11 for dredging a channel through Perryville Bar, Delaware River, as stated in our advertising columns. Maj. C. W. Raymond, U. S. Engr., Philadelphia.

**DAM.**—North Luhec, Me.—The Electrolytic Marine Salts Company wants estimates for constructing two tide-water dams about 450 ft. and 1,000 ft. long, respectively, as stated in our advertising columns. A. N. Pierson, Mgr., Cromwell, Conn.

**RIVER IMPROVEMENT.**—Buffalo, N. Y.—The board of public works has recommended that the city straighten Buffalo Creek, according to the plans of City Engineer Bardol, at a cost of about \$750,000. Four bridges would have to be built.

**REMOVING WRECK.**—Davis Strait, Me.—Bids are asked until April 12 for removing the wreck of the schooner "Nevada" from Davis Strait, Me., as stated in our advertising columns. Maj. R. L. Hoxie, U. S. Engr., Portland, Me.

**DIKE.**—Clinton, Mass.—Bids are asked by the Metropolitan Water Board, 3 Mount Vernon St., Boston, until March 23, for constructing a dike across Coachace Pond, to include 18,000 cu. yds. of earth. Frederic P. Stearns, Ch. Engr., Boston.

**EARTH EMBANKMENT.**—Cleveland, O.—Eli W. Cannell submitted the lowest bid, at \$10,391, Feb. 24, for constructing an earth embankment, including drainage, catch basins, etc., on the Warner Road, between Broadway and Grand Division Ave.

**METAL WORK.**—Wade Point Light-House, N. C.—Bids are asked until March 31 for the metal work in the construction of the Wade Point light-house, as stated in our advertising columns. Lieut.-Col. W. A. Jones, U. S. Light-House Engr., Baltimore, Md.

**LUMBER AND STONE.**—New York, N. Y.—Bids are asked by the department of parks, 64th St. and Fifth Ave., until March 17, for furnishing about 56,000 ft. B. M. of white pine; surety, \$2,000; and also for about 2,500 cu. yds. of screenings; surety, \$3,000.

**TENDERS AND PILE SINKERS.**—St. Louis, Mo.—Bids are asked until April 14 for furnishing three small steam tenders and four pile sinkers, as stated in our advertising columns. Capt. H. E. Waterman, U. S. Engr., Secy. Mississippi River Comm., St. Louis.

**PARK WORK.**—Philadelphia, Pa.—Bids are asked by the Fairmount Park Commissioners, City Hall, until March 24, for constructing a stone wall along the river front, widening the East Park Drive, grading and rubble masonry. Jesse T. Vogdes, Ch. Engr. and Supt.

**REMOVING COFFERDAM.**—Dredging, Brooklyn, N. Y.—The following bids were received at the Brooklyn navy yard, March 9, by Frank T. Bowles, U. S. Naval Constructor, for removing the cofferdam in front of dry dock No. 3, together with the dredging in dock slip to a depth of 28 ft. at low water:

R. G. & J. S. Packard, 130 Pearl St., N.Y. (accepted) \$15,450  
Morris & Cummings Dredging Co., 22-24 State St., N.Y. 20,500  
P. S. Ross, 277 Washington St., Jersey City, N. J. 19,500  
R. P. & J. H. Staats, 29 Broadway, New York.. 16,950

**INDUSTRIAL NOTES.**

**THE WINCHESTER REPEATING ARMS CO.**, New Haven, Conn., is reported to be at work upon an order of 10,000 rifles for the U. S. Navy.

**THE BALDWIN LOCOMOTIVE WORKS**, Philadelphia, is reported to have a contract for 15 heavy mogul freight locomotives for the Egyptian State Ry., Egypt.

**THE SCHENECTADY LOCOMOTIVE WORKS**, Schenectady, N. Y., is reported to have received an order for 12 locomotives of 3 ft. 6-in. gage, for the Kishin R. R. of Japan.

**THE UNION SWITCH & SIGNAL CO.**, Swissville, Pa., through its Western agent, Mr. Spicer, of Chicago, informs us that it is now building an extensive signal plant for the Boston Terminal Station, which we described in our issue of July 8, 1897.

**MR. G. A. HAUSEN**, Struer, Denmark, Locomotive Master of a railway in that city, is reported to be desirous of ordering cars and locomotives in the American market, and during the summer will make a personal investigation among the leading makers and will place his orders.

**THE ASSOCIATED EXPANDED METAL COMPANIES**, at their general meeting, held at Philadelphia, Pa., March 14, were entertained by an informal discussion upon fireproof floor systems and particularly upon the use of expanded metal and concrete for fireproofing, by Mr. George Hill, M. Am. Soc. C. E., of New York.

**THE EDSON MFG. CO.**, Boston, Mass., manufacturers of diaphragm trench pumps, odorless force pumps and suction hose for contractors, reports an increase of orders. The company is making a specialty of its diaphragm pump outfits, consisting of pump, suction-hose couplings and strainer ready for immediate use.

Nearly Every Prominent Contractor and  
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