

## CONTENTS OF SUPPLEMENT.

PERSONAL	81
Obituary	81
ENGINEERING SOCIETIES	81
Coming General Meetings	81
Coming Local Meetings	81
NEW PUBLICATIONS	82
Trade Publications	82
CONSTRUCTION NEWS:	
Condensed List of Contracts Pending	82
Railways	83
Street and Electric Railways	83
Electric Light and Power	84
Bridges	84
Buildings	85
Water-Works	85
Sewerage	85
Garbage Disposal and Street Cleaning	87
Streets and Roads	87
Manufacturing Plants	87
Miscellaneous Contracts	87
Contract Prices	87
INDUSTRIAL NOTES	88

## PERSONAL.

Mr. H. R. Irving has been appointed General Roadmaster of the Chicago, Rock Island & Pacific Ry.

Mr. Daniel D. Jackson has been appointed Chemist in the engineering bureau of the water supply department of Brooklyn, N. Y.

Mr. W. P. Dittoe has been appointed Purchasing Agent of the New York, Chicago & St. Louis R. R. Co., to succeed Mr. M. M. Rodgers, resigned.

Mr. M. Fergusson, of Southport, N. C., is now located at 1 Broadway, New York city. He will also continue his business as civil engineer at Southport.

Mr. A. W. Lynn has resigned as Superintendent of Construction of the Milwaukee Street Ry. to become Manager of the Milwaukee Rail Joint & Welding Co.

Mr. Frank H. Holly has resigned as Superintendent of the Holly Mfg. Co., to take effect Oct. 1. He has been connected with the company about 36 years.

Mr. Paul M. Wade has resigned his position as Advertising Manager of J. H. Williams & Co., Brooklyn, New York, and will establish an independent advertising agency.

Mr. J. A. F. Aspinall, General Manager of the Lancashire & Yorkshire Ry., of England, is in the United States making a study of the electrical departments of American railways.

Mr. A. L. Goetzmann, Assistant Engineer of the Iowa Division of the Chicago & Northwestern Ry., has been appointed Roadmaster of the Mobile Extension of the Western Iowa Division.

Mr. Myron Edward Eyaus, Jun. M. Am. Soc. C. E., and not Mr. Myron E. Edwards, as incorrectly stated in our last issue, has opened an office as civil engineer at 29 Nassau St., New York city.

Mr. Lewis Greaven has been appointed Locomotive and Car Superintendent of the Inter-oceanic Ry. of Mexico, with headquarters at Puebla, Mexico, to succeed Mr. H. E. Walker, who has resigned.

Mr. John Hair, Master Mechanic of the Ohio Division of the Baltimore & Ohio Southwestern Ry., has been appointed Master Mechanic of the Mississippi Division, with headquarters at Washington, Ind., to succeed Mr. C. E. Walker, resigned.

Mr. W. J. Miller, Master Mechanic of the Kansas City, Pittsburg & Gulf R. R., has accepted the position of Foreman of the shops of the St. Louis Southwestern Ry., with headquarters at Pine Bluff, Ark., to succeed Mr. Oliver Galbraith, resigned.

Professor Simon Newcomb, of Washington, D. C., has been elected President of the Astronomical and Astrophysical Society of America. Professor George C. Comstock, of Washburne University, has been elected Secretary, and Professor C. L. Doolittle, of the University of Pennsylvania, Treasurer.

Messrs. A. C. Hutchinson, President of the Morgan R. R. & Steamship Co.; John T. Gibbons, William Adler, Dennis Lanoux, Frank A. Daniels, Chas. A. Janiver and William Atkinson have been appointed commissioners for the proposed sewerage and drainage system for New Orleans, La., to cost about \$14,000,000.

Mr. J. N. Hill has been appointed Third Vice-President of the Great Northern Ry. Line, in charge of the operating and engineering departments. Mr. L. W. Hill has been appointed Vice-President of the Eastern Minnesota Ry., a branch of the Great Northern. Both men are sons of President Hill of the Great Northern Ry. Line.

Mr. Samuel M. Felton, M. Am. Soc. C. E., President and Receiver of the Cincinnati, New Orleans & Texas Pacific Ry., has been elected President of the Chicago & Alton R. R. He will succeed Mr. E. H. Harriman, who has been President since the reorganization a few months ago, when Mr. T. B. Blackstone resigned, after having held the office for several years. Mr. Felton was born in Philadelphia in 1833, and entered railway service as a rodman in 1858. In 1874 he was made General Superintendent of the Pittsburg, Cincinnati, Chicago & St. Louis Ry.; in 1882, General Manager of the New York & New England R. R.; in 1884, General Manager of the New York, Pennsylvania & Ohio R. R., and in 1885 Vice-President of the entire Erie R. R. system. In 1890 he was appointed President of the East Tennessee, Virginia & Georgia Ry.

and of the Cincinnati, New Orleans & Texas Pacific Ry. Since 1893 he has been the Receiver of the latter road. He was elected a Member of the American Society of Civil Engineers in 1882.

## OBITUARY.

Mr. Gaston Tissaudier, the distinguished French chemist and aeronaut, died in France, on Sept. 8, aged 56 years.

Mr. John McGovern, a well-known railway contractor of Pennsylvania, died at his home in Lancaster, Pa., on Sept. 8, aged 77 years.

Mr. J. Hutchinson Lukens, of Burlington, N. J., for a number of years in the civil engineering department of the Amboy Division of the Pennsylvania R. R., died on Sept. 7 of paralysis.

Mr. Alexander L. McKaig, Manager of the Pittsburg Meter Co., at East Pittsburg, Pa., died of apoplexy on Sept. 8, aged about 45 years. He was also an officer in the Westinghouse Machine Co.

Mr. Ebenezer Oliver, a wire manufacturer of New York city, and President of the American Wire Works until the failure of that company in 1879, died from an attack of peritonitis, on Sept. 8, aged 81 years.

Mr. Charles Yandes Wheeler, President of the Fifth-Sterling Steel Co., died of Bright's disease, on Sept. 5, in New York city, aged 56 years. He invented the projectile which is now used largely in the United States Navy.

Mr. Hugh Miller, contractor for cement and concrete work, of Des Moines, Ia., died Aug. 28, after an operation for appendicitis. He was the head of the Miller Sidewalk Co., of Des Moines, Ia., Madison, Wis., and Memphis, Tenn.

Mr. John H. Sessions, President of the Sessions Foundry Co., died at his home in Bristol, Conn., from Bright's disease, on Sept. 10, aged 71 years. He was also President of the Bristol Water Co. and a Director of the Bristol & Plainville Tramway Co.

Mr. John R. Rust, civil engineer, died at his home in Brooklyn, N. Y., on Sept. 12, aged 71 years. He assisted in the location of the Lake Shore and the Chicago, Milwaukee & St. Paul lines, and aided in the construction of the Portland & Ogdensburg K. R. through the White Mountain Notch, and of the St. Johnsbury & Lake Champlain R. R.

Rear-Admiral Henry F. Pickens died suddenly from heart disease at Boston, on Sept. 8. He was born in Pennsylvania in 1840, and graduated from the Naval Academy in 1861. In 1866 he was promoted to the grade of lieutenant commander, and served on various duties at sea until 1894, when he served on several boards and commanded the receiving ships "Minnesota" and "Wabash." He was made a Commodore in 1898, and became a Rear Admiral last March under the new navy personnel bill. On March 25 he was designated to succeed Rear Admiral Howison in the command of the Boston Navy Yard.

Mr. Cornelius Vanderbilt died at his home in New York city from an attack of paralysis, on Sept. 12, aged 56 years. At the time of his death he was President of the Canada Southern, Detroit & Bay City, Joliet & Northern, Leamington & St. Clair, New York & Harlem and the Spuyten Duyvil & Port Morris railway companies, and of the Niagara River Bridge Co.; also Vice-President of the Beech Creek R. R., and director of the following companies: Battle Creek & Sturgis; Bay City & Battle Creek; Carthage & Adirondaeks; Carthage, Watertown & Sackett's Harbor; Chicago, St. Paul, Minneapolis & Omaha; Cleveland, Cincinnati, Chicago & St. Louis; Detroit & Chicago; Dunkirk, Allegheny Valley & Pittsburg; Gouverneur & Oswegatchie; Jackson, Lansing & Saginaw; Jersey City & Bayonne; Kalamazoo & South Haven; Lake Shore & Michigan Southern; Michigan Central; Michigan Midland & Canada; Mohawk & Malone; New Jersey Junction; New York & Putnam; New York Central & Hudson River; New York, Chicago & St. Louis; Niagara Falls Branch; Pine Creek, Pittsburg & Lake Erie; Pittsburg, McKeesport & Youghiogheny; St. Paul & Sioux City; Sarnia, Chatham & Erie; Toledo & Ohio Northern; Toledo, Canada & Southern; Sturgis, Goshen & St. Louis and West Shore Rys.; Detroit Ry.; Buffalo Erie, Basin Co.; Canada Southern Bridge Co.; City & Suburban Homes Co.; Hudson River Bridge Co.; Lansing Transit Co.; Michigan Air Line Co.; Morris Run Coal Mining Co.; New Jersey Shore Line Co.; New York Mutual Gas Light Co.; Niagara Grand Island Bridge Co.; Terminal Ry. of Buffalo; Wagner Palace Car Co.; Western Transit Co., and West Shore & Ontario Terminal Co.

## ENGINEERING SOCIETIES.

## COMING GENERAL MEETINGS.

ROADMASTERS' ASSOCIATION OF AMERICA. Sept. 12 to 15. Annual meeting at Detroit. Secy., J. B. Dickson, C. & N. Ry., Sterling, Ill.

NEW ENGLAND WATER-WORKS ASSOCIATION. Sept. 13 to 15. At Syracuse, N. Y. Secy., J. C. Whitney, Newtow, Mass.

LEAGUE OF AMERICAN MUNICIPALITIES. Sept. 19 to 22. At Syracuse, N. Y. Secy., B. F. Gilkison, New York city.

AMERICAN SOCIETY OF RAILWAY SUPERINTENDENTS. Sept. 20. At Detroit. Secy., C. A. Hammond, Ashbury Park, N. J.

CANADIAN ROADMASTERS' ASSOCIATION. Sept. 20. Annual convention at Toronto, Ont. Secy., J. Drinkwater, C. P. Ry., Winchester, Ont., Canada.

AMERICAN INSTITUTE OF MINING ENGINEERS. Sept. 25. Annual meeting, San Francisco, Cal. Secy., A. W. Raymond, 39 John St., New York city.

EASTERN MAINTENANCE OF WAY ASSOCIATION. Sept. 26 to 29. Portland, Me. Secy., F. C. Stowell, B. & M. R. R., Ware Mass.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS. Oct. 3 to 5. At Toronto, Ont. Secy., David L. Fulton, Allegheny, Pa.

PENNSYLVANIA STREET RAILWAY ASSOCIATION. Oct. 4, 5. At Lancaster, Pa. Secy., S. P. Light, Lebanon, Pa.

OHIO ELECTRIC LIGHT ASSOCIATION. Oct. 10-12. At Cleveland, Ohio. Secy., Samuel Seovil, Cleveland, O.

AMERICAN RAILWAY ASSOCIATION. Oct. 11. At New York. Secy., F. W. Allen, 24 Park Place, New York.

AMERICAN STREET RAILWAY ASSOCIATION. Oct. 17. At Chicago. Secy., T. C. Pennington, Chicago, Ill.

ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS. Oct. 17. At Detroit. Secy., S. F. Patterson, B. & M. R. R., Concord, N. H.

AMERICAN GAS LIGHT ASSOCIATION. Oct. 18 to 20. At New York. Secy., Alfred E. Forstall, 58 William St., New York.

AMERICAN INSTITUTE OF ARCHITECTS. Nov. 13 to 15. Annual meeting at Pittsburg, Pa. Secy., Chas. I. Berg, 10 West 23d St., New York city.

SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS. Nov. 15 and 17. Annual meeting at New York. Secy., Francis T. Bowles, 12 West 31st St., New York city.

## COMING LOCAL MEETINGS.

CHICAGO ELECTRICAL ASSOCIATION. Sept. 8. Secy., Cloyd Marshall, 1310 Monon Bldg., Chicago, Ill.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB. Sept. 14. At Atlanta. Secy., F. A. Charfoit, P. O. Box 15, Savannah, Ga.

NORTHWESTERN TRACK AND BRIDGE ASSOCIATION. Sept. 15. At St. Paul. Secy., D. W. Meeker, St. Paul, Minn.

ENGINEERS' CLUB OF COLUMBUS. Sept. 16. Secy., H. M. Gates, 12½ North High St., Columbus, O.

ENGINEERS' CLUB OF CINCINNATI. Sept. 19. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA. Sept. 19. At Pittsburg. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.

ENGINEERS' CLUB OF ST. LOUIS. Sept. 20. Secy., Richard McCulloch, 2101 N. Spring Ave., St. Louis, Mo.

AMERICAN SOCIETY OF CIVIL ENGINEERS. Sept. 20. At New York. Secy., C. W. Hunt, 220 W. 5th St., New York city.

BOSTON SOCIETY OF CIVIL ENGINEERS. Sept. 20. Secy., S. E. Tinkham, City Hall, Boston, Mass.

NEW YORK RAILROAD CLUB. Sept. 21. At New York city. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y.

MONTANA SOCIETY OF CIVIL ENGINEERS. Sept. 23. At Helena. Secy., Albert S. Hovey, Helena, Mont.

ENGINEERS' SOCIETY OF WESTERN NEW YORK. Oct. 2. At Buffalo. Secy., H. J. March, Library Bldg., Buffalo, N. Y.

ENGINEERS' CLUB OF MINNEAPOLIS. Oct. 5. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.

TECHNICAL SOCIETY OF THE PACIFIC COAST. Oct. 6. At San Francisco. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

CIVIL ENGINEERING CLUB OF CLEVELAND. Oct. 10. Secy., W. H. Searles, Case Library Bldg., Cleveland, O.

DENVER SOCIETY OF CIVIL ENGINEERS. Oct. 10. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Colo.

NEW ENGLAND RAILROAD CLUB. Oct. 10. At Boston. Secy., Edw. L. Jones, P. O. Box 115, Boston, Mass.

NORTHWEST RAILWAY CLUB. Oct. 10. At Minneapolis. Secy., T. A. Fogue, Soo Line, Minneapolis, Minn.

ST. LOUIS RAILWAY CLUB. Oct. 13. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.

CENTRAL RAILWAY CLUB. Nov. 10. At Buffalo. Secy., H. D. Vought, 114 5th Ave., New York city.

WESTERN SOCIETY OF ENGINEERS.—On Sept. 12 a visit was paid to the Yerkes observatory at Lake Geneva, Ill., by invitation from the University of Chicago, through the president, Dr. W. H. Harper. A special train was run over the Chicago & Northwestern Ry.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS.—The sixth annual convention of the American Society of Municipal Improvements will be held at Toronto, Canada, on Oct. 3d to 5th.

In addition to reports from each of the regular and special committees, the following are a few of the papers which will be presented: "The Life of Pavements," "Recent Methods of Testing Paving Brick," "Modern Wood Pavements," "Damages for Non-Repair of Highways," "Collection and Disposal of Garbage in Cincinnati," "Notes on Electrolysis in Several Cities," "The New Water Supply of Cincinnati," "Physical Properties of Asphalt."

All of the above subjects will be treated by city officers of experience, whose opinions are entitled to respect. Papers or written and oral discussions upon any subject of interest to those engaged in municipal work are cordially invited. Notice should be sent to the Secretary of all papers which will be presented, before Sept. 15, in order that they may be placed upon the programme which will be issued about that time. The meetings of the society will be held in the new City Hall, Toronto.

D. L. Fulton, Secy., Allegheny, Pa.

INTERNATIONAL CONGRESSES AT THE PARIS EXPOSITION.—It is expected that there will be about 80 congresses held at Paris under the auspices of the exposition management. They will be classified as follows:

- 1. Education and Instruction.
2. Fine Arts, Decorative Arts, Literature, Dramatic Art.
3. Mathematical Sciences, Astronomy, Geodesy, Surveying, etc.
4. Physics and Chemistry and their applications.
5. Natural Sciences.
6. Medicine and Pharmacy.
7. Applied Mechanics, Engineering and Transportation.
8. Agriculture and Forestry.
9. National Economy, Laws and Statistics.
10. Social Science.
11. Colonization and Geography.
12. Industry and Commerce.

Those attending or participating in the congresses will be required to pay a small sum. Former international congresses will be allowed to retain their former organization, under the supervision of the Commissioner-General. The transactions will be in English, German and French. Societies desiring to hold congresses at the exposition should communicate with the authorities before Oct. 1, 1899, through M. L. Bacle, Adjudant to the General Secretary, 57 Rue de Chateaudun, Paris.

ANNUAL CONVENTION OF THE CENTRAL STATES WATER-WORKS ASSOCIATION.—The second annual convention of the Central States Water-Works Association was held at the Grand Hotel, Cincinnati, O., Sept. 5 to 7. The convention was called to order with the President, Mr. T. R. Cook, Toledo, O., in the chair. Mr. N. Paul Fenner, Jr., Cincinnati, O., Chairman of the General Committee of Arrangements, welcomed the convention in the opening address, and introduced Mayor Tafel, of Cincinnati. After other preliminaries the business of the Association was taken up, and extended over the three mornings during which the convention was held. Papers were read as follows: "Necessity, the Mother of Invention," by Mr. H. C. Stillwell, Marion, O.; "Efficiency of Water-Works Pumping Engines," by Mr. Lehman H. Hoyt, Cleveland, O.; "Municipal Ownership of Water-Works," by Mr. Joseph J. Pater, Hamilton, O.; "The Application of Compressed Air for Supplying Water," by Mr. C. W. Wiles, Delaware, O.; "Electrolysis," by Mr. J. H. Schaffer, Cincinnati, O.; "Automatic Flush Tanks for Sewers, and the Unnecessary and Extravagant Waste of Water that May be Occasioned by Them," by Mr. Geo. Hornung, Newport, Ky.; "The Sanitary and Chemical Purification of Water Due to Softening," by Mr. N. O. Goldsmith, Cincinnati, O. In addition to the papers just mentioned, informal addresses and papers were read by several members, and Mr. G. Houscaren, Chief Engineer of the Cincinnati Water-Works, gave a brief description of the proposed water-works improvements in that city, and Mr. D. Moran, New York, gave an informal talk on pneumatic work, especially in regard to the methods being used in connection with the new pump pit and intake now under construction for the city of Cincinnati. The following officers were elected for the ensuing year: President, Mr. C. W. Wiles, Delaware, O.; Vice-Presidents, Messrs. Wm. Grove, Covington, Ky.; Quincy Walling, Muncie, Ind.; N. Paul Fenner, Cincinnati, O., and Clark Howell, Charleston, W. Va. Mr. John Fisher, Hamilton, O., was re-elected Secretary; Mr. Chas. E. Rowe, Dayton, O., was re-elected Treasurer, and Mr. Joseph J. Pater, Hamilton, O., was re-elected Editor. The Executive Committee was re-elected as a whole, and the new Finance Committee consists of: Messrs. W. B. Mitchell, Piqua, O.; B. V. Van Bohren, Evansville, Ind., and Mr. A. W. Inman, Massillon, O.

The afternoons and evenings during the convention were spent by the delegates and visitors in enjoying the elaborate programme arranged by the Reception Committee. Visits were made by special cars to the Covington and Newport reservoirs, Fort Thomas, the Lagoon, Eden Park, Zoological Gardens and Chester Park, and by special steamer on the Ohio River to the old and new Cincinnati pumping stations. The Cincinnati fire department also gave a special exhibition at Washington Park.

Columbus, O., was selected as the place at which to hold the next annual convention.

A list of the exhibits which were made at the convention is given in the Supplement.

NEW PUBLICATIONS.

LITERARY MAGAZINES.—In the "Review of Reviews" for September we find two thoughtful articles on the present Trust problem. Hon. Geo. E. Roberts, Director of the Mint, writes on "Why the Trusts Cannot Control Prices," and the reasons he gives is that as soon as a trust raises prices so as to make undue profits, independent competitors will enter the field. The thing he fails to see, or at least to state, however, is that the new competitor, after a season of competition, will combine with the trust and then prices will be raised to pay the interest on the capital wasted in unneeded facilities. It has happened this way in hundreds of cases. Mr. Roberts believes, however, that Government regulation is necessary to prevent trust combinations from becoming conspiracies against the public welfare, and in this he is undoubtedly correct. The other trust article is by Mr. Henry McFarland, who suggests that in order to avoid the chance that the trust may be an issue in the coming presidential campaign, the Republican party should at once put in motion an amendment to the Constitution,

giving to the Federal Government the power, which, according to the Supreme Court, it does not now possess, of dealing with all Trust combinations. The suggestion is undoubtedly a wise one, and coupled with the more definite suggestions of Prof. James, of the University of Chicago, and Mr. John D. Archbold that the Federal Government should be given the sole power over corporations operating beyond the limits of a single state, it must be said to be the first really practical step thus far suggested toward a real checking of trust abuses.

In the September "Forum," the cotton mills of Shanghai are described by Mr. Chas. Denby, Jr. There are five of them, with a total of 177,000 spindles. When first started, two years ago, everything was rose-colored. With labor at 10 cts. per day, huge profits were in sight. Various difficulties have been encountered, however, and the stock in the mills is now quoted at only 50 to 90% of its par value. Capt. Wm. W. Bates writes on the development of the American merchant marine. He opposes the Hanna-Payne ship-subsidy bill, and advocates instead "the making of a preference for our own vessels in our own commerce," whatever that may mean.

In the September "North American Review," Mr. J. S. Auerbach discusses the legal aspect of Trusts at much length. His review, although it is made from the standpoint of a trust lawyer, makes entirely clear the necessity for some amendment to our organic law, such as is suggested above. In the same magazine the history of recent "automobilism" in France is reviewed by a French nobleman.

In the English "Contemporary Review," the Trans-Siberian Ry. is described by W. Durhan. The article is an enthusiastic account of the enterprise, which the writer believes, and with much reason, is destined to work a revolution in the condition of northern Asia. It is of interest to note that the proposal of an American named Collins in 1857 to build a line from Irkutsk to Chitka is said to have been the seed from which this great enterprise has grown.

In the "Fortnightly" for August we find a continuation of the article by an anonymous writer on the alleged Russian ship canal from the Black Sea to the Baltic. The present article relates chiefly to the strategic and military conditions of Russia's Black Sea ports. The writer states that Russia for reasons of national defense closed the famous harbor of Sebastopol to all shipping on Sept. 1 of this year, and he also declares that Russia proposes to permanently close her Black Sea ports to foreign shipping. In other words, she proposes to carry on her own commerce with her own vessels, and take the shortest means of building up her merchant marine. Just what the result will be of forcing development in this arbitrary manner remains to be seen.

In the "Popular Science Monthly" for September, Prof. Victor C. Vaughan has a paper, entitled "Are we in Danger from the Plague?" His paper discusses in general the progress of the plague, and reaches the conclusion that the danger is very slight and that efficient quarantine can certainly exclude it, even if it should be brought to us across the sea. "The Milk Supply of Cities" is another paper in the same magazine which deserves a word of mention here. The September "Pall Mall Magazine" contains a paper on "Russia after the Completion of the Siberian Ry.," in which the author argues that the commercial possibilities of that road are somewhat overrated at the present time.

The "Century" for September is a "Salt Water Number," filled with a variety of sketches of nautical life. One especially worthy of note, entitled "The Atlantic Speedway," discusses the dangers of fast steaming on the Atlantic passage, and tells some plain truths as to the responsibility for such accidents as that to the "Bourgoigne." There is also a paper by Capt. Joshua Slocum, an ancient mariner who has sailed around the world alone, and who describes his experiences on his solitary voyages.

The leading article in the September "Atlantic" is by President Chas. Kendall Adams, of the University of Wisconsin, on "Irresistible Tendencies." The article is a review of certain forces in modern civilization which are making themselves manifest, and an inquiry as to where these forces are leading us. The paper is one which will well repay careful study. In "The Genesis of the Gang," in the same magazine, Mr. Jacob A. Rills points out some of the ways in which our city civilizations are defective, and explains how robbing the children of their opportunities for honest and clean living is to sow the seed for corrupt politics in the next generation.

"Harper's" for September is notable for its reduction in price to 25 cts. a copy or \$3.00 a year. Its contents show no falling off in quality however. Mr. Chas. H. Caffin writes on "Formal Gardens," a paper which deserves the attention of every one interested in landscape gardening, although we trust the school for which he stands may never become predominant in this country. "The British Occupation of Egypt" is the title of another paper which will give food for thought to every one who realizes the Egypt which this country has now on its hands. The closing article of the number, with the attractive title "A Cure for City Corruption," describes English experience with municipal government and municipal ownership and operation of natural monopolies. The writer tells would-be reformers in this country that if they would win the people to their side, they must adopt a broad social programme. Good government in the abstract does not appeal to a sufficient number of voters to win. Unite with it the promise that government shall assume its proper responsibilities and it is bound to win.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3 1/2 x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

ROTARY PUMPS.—Davis-Johnson Co., 41 West Randolph St., Chicago, Ill. Paper; 9 x 6 ins.; pp. 32; illustrated.

The Johnson pump is adapted for handling water or such thick liquids as brewers' wash, glue stock, soap stock, etc. The rotating piston head has projecting blades which are withdrawn within the piston by cams. A number of these pumps are in use at industrial establishments, etc.

MINING MACHINERY.—The D. Clint Prescott Co., Muskegon, Mich. Paper; 10 x 6 1/2 ins.; pp. 40; illustrated.

This is a descriptive catalogue of hoisting engines, mine skips and cars, sheaves, cages, platforms, etc. Also engines and boilers, the Prescott duplex pump, Cameron vertical mining pump, and the Libbey-Prescott centrifugal pump. Other specialties and general supplies are also included.

LOMBARD WATER-WHEEL GOVERNOR.—Lombard Water-Wheel Governor Co., Boston, Mass. Paper; 6 x 8 1/2 ins.; pp. 8; illustrated.

This pamphlet contains a brief description of the Type F water-wheel governor manufactured by this company, for use with Pelton or impulse wheels and small turbines. It operates either by deflecting the nozzle, diverting part of the stream by a hood or throttling the supply.

CREOSOTED WOOD BLOCK PAVING.—Chicago Creosoted Block Paving Co., 520 Chamber of Commerce Building, Chicago, Ill. Paper; 5 x 8 ins.; pp. 40; illustrated.

This pamphlet describes paving with rectangular blocks of creosoted pine, as used in several European cities, and at Galveston and Indianapolis in this country. The system is to be used on the Rush St. bridge, Chicago. The illustrations are reproductions of photographs of streets in home and foreign cities which are paved with this material.

HYDRAULIC PUMPS AND HOT-AIR ENGINES.—Erwin-Welch Hydraulic Machinery Co., 85 Dearborn St. and 37 South Canal St., Chicago, Ill. Paper; 3 1/2 x 6 1/2 ins.; pp. 4; illustrated.

This is a catalogue and price list of pumps for dwellings, office buildings, public institutions, etc., and ranging in capacity from 400 to 4,000 gallons per hour, raised to a height of 600 ft. The hydraulic pump is operated by city or artesian well pressure.

SWITCHBOARDS.—Westinghouse Electric & Mfg. Co., Pittsburgh, Pa. Paper; 7 x 10 ins.; illustrated.

Catalogues No. 232 and No. 233 describe switchboards for polyphase alternating currents at 1,100 and 2,200 volts, and No. 235, those for 100 to 600 volts. Catalogue No. 234 treats of railway switchboards. These pamphlets are well illustrated and contain price lists and wiring diagrams for the various boards.

SINGLE-PHASE ALTERNATORS.—This catalogue, No. 236, is uniform in size with and from the same company as the above. The compensating winding used by this company for compounding the fields of alternating generators is described, together with other details of this class of machinery.

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 Captiol annex, River improvements, Water-works, School building, etc., with dates from Aug. 17 to Aug. 31.

Sept. 18. Reservoir, Bucyrus, O. .... Sept. 14  
 Advertised, Engineering News, Aug. 31.  
 Sept. 18. Paving, Dayton, O. .... Sept. 11  
 Sept. 18. Paving, St. Paul, Minn. .... Sept. 14  
 Sept. 19. Buildings, National Military Home, O. .... Sept. 14  
 Sept. 19. Bridge, South Bend, Wash. .... Sept. 14  
 Sept. 19. Sewers, Trenton, N. J. .... Sept. 14  
 Sept. 19. Asphalt paving, New York, N. Y. .... Sept. 14  
 Sept. 19. Tubular boilers, Norwalk, Conn. .... Sept. 14  
 Sept. 19. Paving, Harrison, N. J. .... Sept. 14  
 Sept. 19. Macadamizing, Crookston, Minn. .... Sept. 11  
 Sept. 19. Tubular boilers, Binghamton, N. Y. .... Sept. 14  
 Sept. 19. Sewers, paving, Philadelphia, Pa. .... Sept. 11  
 Sept. 19. Sewers, Billings, Mont. .... Sept. 14  
 Sept. 19. Reservoir, Irvington, N. Y. .... Sept. 7  
 Advertised, Eng. News, Sept. 7 and 14.  
 Sept. 19. Cement, etc., Washington, D. C. .... Sept. 7  
 Sept. 19. Tubular boilers, Binghamton, N. Y. .... Sept. 7  
 Sept. 19. Advertised, Eng. News, Sept. 7 and 14.  
 Sept. 19. Machinery, Puget Sound, Wash. .... Aug. 31  
 Sept. 19. Stand-pipe, Wilmington, Del. .... Aug. 31  
 Advertised, Eng. News, Aug. 31 and Sept. 7.  
 Sept. 20. Post Office building, Canton, O. .... Aug. 31  
 Sept. 20. Buys, etc., Tompkinsville, N. Y. .... Aug. 31  
 Sept. 20. River improvement, Galveston, Tex. .... Aug. 24  
 Advertised, Eng. News, Aug. 24 to Sept. 14.  
 Sept. 20. Superstructure to bridge, Chicago, Ill. .... Aug. 3  
 Advertised, Engineering News, Aug. 3.  
 Sept. 20. Sulphite mill, Sault Ste. Marie, Ont. .... Sept. 7  
 Advertised, Eng. News, Sept. 7 to 21.  
 Sept. 20. Bridges, Delphi, Ind. .... Sept. 7  
 Sept. 20. Electric plant, Heckmondwike, England. .... Sept. 7  
 Sept. 20. Bridges, Merced, Cal. .... Sept. 7  
 Sept. 20. Dry-dock, Levis, Que. .... Sept. 14  
 Sept. 20. Sewers, Chicago, Ill. .... Sept. 14  
 Sept. 20. Wharf, Cacoana, Que. .... Sept. 14  
 Sept. 20. Sewers, New York. .... Sept. 11  
 Sept. 20. Trunk sewers, South Nyack, N. Y. .... Sept. 14  
 Advertised, Engineering News, Sept. 14.  
 Sept. 20. Sewer, Lima, O. .... Sept. 11  
 Sept. 20. Main sewers, Lorain, O. .... Sept. 14  
 Advertised, Eng. News, Sept. 14 and 21.  
 Sept. 20. Water bonds, White Plains, N. Y. .... Sept. 14  
 Sept. 20. Water pipe, valves, etc., Honolulu, H. I. .... Sept. 14  
 Sept. 20. Macadamizing, Sewickley, Pa. .... Sept. 14  
 Sept. 20. Garbage crematory, Louisville, Ky. .... Sept. 14  
 Sept. 20. Paving, Indianapolis, Ind. .... Sept. 14  
 Sept. 21. Army barracks, Charleston, S. C. .... Sept. 11  
 Sept. 21. Tramway, Southampton, England. .... Sept. 14  
 Sept. 21. Museum building, etc., New York. .... Sept. 14  
 Sept. 21. Park entrances, etc., New York. .... Sept. 14  
 Sept. 21. Water pipe, stand-pipe, etc., Philadelphia. .... Sept. 14  
 Sept. 21. Sewer in Hamburg Canal, etc., Buffalo, N. Y. .... Sept. 14  
 Sept. 21. Electric plant, etc., Shelburne, Ont. .... Sept. 7  
 Sept. 21. Lighting, Charleston, W. Va. .... Sept. 7  
 Sept. 22. Jail building, Grand Junction, Colo. .... Aug. 31  
 Sept. 22. Electric plant, Dyersburg, Tenn. .... Sept. 7  
 Sept. 22. Electric plant, Luton, England. .... Sept. 7  
 Sept. 23. Dredging, Scltuate Harbor, Mass. .... Aug. 31  
 Advertised, Eng. News, Aug. 31 to Sept. 21.  
 Sept. 23. Block paving, Port Clinton, O. .... Aug. 31  
 Sept. 23. Heating apparatus, Marietta, Ga. .... Aug. 31  
 Sept. 22. School building, Chicago, Ill. .... Sept. 11  
 Sept. 22. Reformatory building, Bedford, N. Y. .... Sept. 11  
 Advertised, Eng. News, Aug. 21 to Sept. 7.  
 Sept. 23. Building, Nashua, N. H. .... Sept. 11  
 Sept. 23. School building, Washington, D. C. .... Sept. 14  
 Sept. 23. Cement sidewalks, Washington, D. C. .... Sept. 14  
 Sept. 23. School building, Gettysburg, S. Dak. .... Sept. 7  
 Sept. 25. Electric plant, Iffracombe, England. .... Sept. 7  
 Sept. 25. County buildings, Los Angeles, Cal. .... Sept. 7  
 Sept. 25. Bridge, Reno, Nev. .... Sept. 7  
 Sept. 25. Well (300 ft.), Cullman, Ala. .... Sept. 7  
 Sept. 25. Purchase of boilers, etc., Denbigh, Wales. .... Sept. 14  
 Sept. 25. Hospital building, New York. .... Sept. 14  
 Sept. 25. Electric plant, De Witt, Ark. .... Sept. 14  
 Sept. 25. Sewer bonds, Belvedere, Cal. .... Sept. 14  
 Sept. 25. Levee work, New Orleans, La. .... Sept. 14  
 Sept. 25. Stone building, Brownwood, Tenn. .... Sept. 11  
 Sept. 25. Sewers, Ben Avon, Pa. .... Sept. 14  
 Sept. 26. School building, Trenton, N. J. .... Sept. 14  
 Sept. 26. Paving, New York, N. Y. .... Sept. 14  
 Sept. 26. Dam, Grand Island, Neb. .... Sept. 14  
 Sept. 26. Dredging, Sayville, N. Y. .... Aug. 31  
 Advertised, Eng. News, Aug. 31 to Sept. 21.  
 Sept. 26. Jetty work, Port Jefferson Inlet, N. Y. .... Aug. 31  
 Advertised, Eng. News, Aug. 31 to Sept. 21.  
 Sept. 26. School building, Oneida, Wis. .... Sept. 7  
 Sept. 27. Electric plant, New London, Conn. .... Aug. 31  
 Advertised, Eng. News, Aug. 31 to Sept. 21.  
 Sept. 27. Sewers, Lorain, O. .... Sept. 7  
 Sept. 27. Manufacturing plant, London, England. .... Sept. 14  
 Sept. 28. Bridge, Washington, Ia. .... Sept. 14  
 Advertised, Eng. News, Sept. 14 and 21.  
 Sept. 28. U. S. building, Bristol, Tenn. .... Sept. 7  
 Sept. 28. Removal of wreck, Barnegat Inlet, N. J. .... Sept. 7  
 Sept. 28. Brick paving, Ripon, Wis. .... Sept. 7  
 Sept. 28. Machinery, New Orleans, La. .... Aug. 24  
 Sept. 28. Heating, etc., St. Paul, Minn. .... Aug. 24  
 Sept. 29. River work, New York, N. Y. .... Aug. 31  
 Advertised, Eng. News, Aug. 31 to Sept. 21.  
 Sept. 29. Jetty, Los Angeles, Cal. .... Sept. 7  
 Sept. 29. Street improvement, Greenville, O. .... Sept. 7  
 Sept. 29. Street improvement, Cincinnati, O. .... Sept. 7  
 Sept. 29. Improvement bonds, Greenville, O. .... Sept. 14  
 Advertised, Eng. News, Sept. 14 and 21.  
 Sept. 29. Army barracks, Pensacola, Fla. .... Sept. 14  
 Sept. 30. Dike work, Seattle, Wash. .... Sept. 14  
 Sept. 30. Water-works, St. Mary's, W. Va. .... Sept. 14  
 Sept. 30. Railroad grading (6 miles), Moultrie, Ga. .... Sept. 7  
 Advertised, Eng. News, Sept. 7 to 21.  
 Sept. 30. Shop buildings, Norfolk, Va. .... Sept. 7  
 Sept. 30. Steel building, hollers, etc., Turin, Italy. .... July 27  
 Sept. 30. Quay wall, Mare Island, Cal. .... Aug. 31  
 No date. Bridge, Pomeroy, Wash. .... Sept. 11  
 " Tunnel, San Francisco, Cal. .... Sept. 14  
 " Water pipe, etc., Lufkin, Tex. .... Sept. 14  
 " Stone mill building, Sault Ste. Marie, Ont. .... Sept. 7  
 Advertised, Eng. News, Sept. 7 and 14.

RAILWAYS.

ABBOTSFORD & NORTHEASTERN—Surveys have been made and the right of way obtained for an extension to this line from Athens, Wis., to a timber tract 12 miles north. Grading has been commenced, and it is expected to complete the work this year. F. Rietbrock, Gen. Mgr. and Purchasing Agt., Milwaukee, Wis.

ALTON & EASTERN—This company was incorporated in Illinois, Sept. 6, with \$15,000 capital stock, to build a line from Alton to Vandalia, Ill. E. M. Dorsey, Alton, Ill.; Henry S. Dorsey, Gillespie, Ill., and J. S. Alexander, Columbia, Mo., are directors.

BURLINGTON, CEDAR RAPIDS & NORTHERN—Surveys are under way for a projected extension of this system from Worthington to Hardwick, Minn., a distance of 25 miles. Work is now said to be in progress by Robert Elzy on the extension from Armstrong to Estherville, Ia., 18 miles. H. F. White, Ch. Engr., Cedar Rapids, Ia.

Thomas H. Brown, General Townsite and Right-of-Way Agent, Sioux Falls, S. Dak., informs us that about 20 miles have been surveyed, but no right of way has been obtained. Capital for construction has been secured, and it is expected to let contracts in September.

BALTIMORE, CHESAPEAKE & ATLANTIC—This system of railway between Chalkbone and Ocean City, Md., 87 miles, is reported to have been sold to the Pennsylvania R. R. Co. John S. Wilson, Baltimore, Md., was the president.

BOSTON & ALBANY—This company is said to contemplate an important change in its roadbed between the 23d and 24th mile posts, beginning just east of the Winter St. bridge in Framingham, Mass., and running west to a point inside the boundaries of Ashland. The new grade would be a trifle over 23 ft. a mile, with a net elevation of 3 3/10 ft.; estimated cost, \$12,763, of which amount \$2,000 is for land damages. W. Shepard, Ch. Engr., Boston.

CENTRAL OF NEW JERSEY—Reports state a survey for a branch of this system has been made between Gateville and Chimney Rock, west of Bound Brook, N. J.

CRIPPLE CREEK—This company has been incorporated, with \$1,000,000 capital stock, by Geo. H. Proctor, Alfred C. Phelps and others, and, together with the new Old Colony Co. and the Finance Co., it is proposed to construct a large railway tunnel, to end 4,000 ft. below Victor, Colo., with branches encircling the Cripple Creek district, the total length being 50 miles. The tunnel will enter the mountains at Colorado City and emerge at Marlboro, passing under Pike's Peak. On the way a steam line will be built to Canyon City from Cripple Creek, and a cyanide mill of 500 tons daily capacity and a 200-room hotel building are expected to be built four miles out from Canyon City.

DELAWARE & HUDSON—Reports state that about 100 men commenced grading at Scranton, Pa., Sept. 5, for the proposed new line along the abandoned section of the Delaware & Hudson Canal. C. R. Manville, Supt., Carbondale, Pa.

DENVER & OKLAHOMA—This company has been incorporated in Oklahoma to construct a line from Denver, Colo., in a southeasterly direction to Batesville, Ark., about 800 miles. B. P. Waggener, Atchison, Kan.; T. J. Beebe, Anthony, Kan., and T. J. Brockaway, Augusta, Okla., are incorporators.

DETROIT & TOLEDO SHORE LINE—This company is reported to have secured all the right of way for its proposed line from Detroit, Mich., to Toledo, O., about 50 miles, and to have completed grading as far as Monroe. Work is now being pushed on the bridges, and as soon as they are erected it is expected to lay the rails. Joseph K. Duffy, Vice-Pres. and Gen. Mgr., Toledo, O.

DETROIT COPPER MINING CO.—James Douglas, Pres., 90 John St., New York, informs us that nothing has yet been done towards letting contracts for constructing this proposed line from Morend to Guthrie, Ariz., about 18 miles. Surveys have been made; the maximum grade is 3 1/2%.

GAINESVILLE, OCALA & CHARLOTTE HARBOR—This company was incorporated in Florida, Sept. 4, with a capital stock of \$3,250,000, to construct a railway from the Georgia and Florida line in Columbia county through Alachua, Marion, Sumter, Polk and Hillsboro counties, to Charlotte Harbor, Fla., about 325 miles.

GREAT NORTHERN—It has been announced that this company has decided to construct an extension at once from Wilbur, Wash., up the Sans Poll River to Republic. There will be but little grading and rock work to be done.

HAWTHORNE, NEBAGAMON & SUPERIOR—F. L. Wilkins, Audr., Lake Nebagamon, Wis., informs us that this new road has been completed from Hawthorne to Lake Nebagamon, Wis., 7 1/2 miles. It is reported that a northern extension is contemplated. Edward Rutledge, Pres., Chippewa Falls, Wis.; Wm. O'Neal, Ch. Engr., Nebagamon Lake.

KUTZTOWN & READING—Incorporated in Pennsylvania, Sept. 12, with a capital stock of \$150,000, to construct a steam railway from Kutztown to Reading, Pa. H. J. Schmelk, Pres., Hamburg, Pa.; John M. Kutz, Mahoney City, and J. S. Trexler, Kutztown, are incorporators.

LEAGUE ISLAND NAVY YARD—Bids are asked by the bureau of yards and docks, Washington, D. C., until Sept. 16, for the labor and material required to lay about 6,913 lin. ft. for railway track at the navy yard, League Island, Philadelphia, Pa.

MASONTOWN & NEW SALEM—Incorporated in Pennsylvania, Sept. 11, with a capital stock of \$80,000, to construct a steam railway between Masontown and New Salem, Fayette county, Pa. John P. Brennan, Pres., Scottsdale, Pa.; Jas. A. Cowan, Mount Pleasant, Pa., and Wilbur M. Judd, Masontown, are incorporators.

MOBILE & WEST ALABAMA—Reports state that this company is now securing the right of way for its proposed line from Florence, on the Tennessee River, to Mobile, via Tuscaloosa, Ala. It is expected to let contracts for construction by Jan. 1. H. Austill, Pres., Mobile, Ala.; J. A. Milner, Ch. Engr.

MONONGAHELA & WASHINGTON—Reports state that work has begun on this new railway, which is to connect with the Pittsburg, Virginia & Charleston at Washington, Pa., and extend about 15 miles up Pigeon Creek to the new town of Ellsworth. The contract has been let to D. T. Keenan, Philadelphia, Pa., who will employ between 1,500 and 2,000 men. In accordance with the present contract the line will extend from the Pittsburg, Virginia & Charleston tracks at Washington, crossing Main St., where a bridge is to be built, stretching across the creek at its widest point, thence following Pigeon Creek through the numerous promontories of the Ellsworth coal vein. The railway yards will be on the Marsh and Yorty farms. Stone for the bridges is being quarried as rapidly as possible, and it is expected to build the line at once. Samuel Rea, Pres.; Jos. M. Crawford, Ch. Engr., both of Philadelphia, Pa.

NORFOLK & WESTERN—L. H. Vaughan & Co., Shawsville, Va., and 9 Campbell Ave., Roanoke, Va., inform us that they have the work of constructing the second track for this company covered with full forces from Shawsville to Houchins, Va. About 300 laborers are at work, besides steam drill men, masons, etc., and good progress is being made. It is reported that the work is very heavy, and that two tunnels will have to be blown out. Chas. S. Churchill, Engr. Maintenance of Way, Roanoke, Va.

PERSIA—A new line of railway has just been completed between Resht, 18 miles southeast of Enzeli on the Caspian Sea, to Teheran, Persia, a distance of 218 miles. It has been built by the Russian government during the past three years. It is reported that there is now renewed activity on the part of the British syndicate with regard to building the projected line of railway from Konieh, in Asia Minor, to Alexandretta, thence to Bagdad, and through the Valley of the Euphrates to Bassorah, or Bassra, a port on the Shatel-Arab, 70 miles from its mouth in the Persian Gulf. This railway would not only make it possible to reach India in eight days after leav-

ing London, but such a line, it is pointed out, would greatly improve Great Britain's position in Asia Minor and Persia, and would open new fields for British enterprise and commerce.

ST. JOHNS & ATLANTA—H. M. Flagler, Pres. Florida East Coast Ry. Co., 26 Broadway, New York, is reported to have purchased this 22-mile line of railway running to Pablo, Fla. It is said that heavy rains will be laid, and that Pablo will be fitted up as a winter resort.

SEARCY & DES ARC—This company has been formed from the consolidation of the Searcy & West Point Ry., now operated between Searcy and West Point, Ark., and the Des Arc & Northern Ry., between Higginson and Des Arc, Ark. It is proposed to build a continuous line from Searcy to Des Arc. W. M. Watkins, John T. Hicks and John E. Lightle, all of Searcy, Ark., are directors.

SHAWNEE, OKLAHOMA & INDIAN TERRITORY—The charter of this company, which proposes to construct a railway from Denison, Tex., to Shawnee, Okla., and from Shawnee to Stroud, Okla., has been amended so as to terminate the road at Wichita, Kan., according to an agreement of the Wichita Commercial Club with C. N. Points, Shawnee, the promoter, two months ago. This action is based on a pledge from the Commercial Club to raise \$50,000 aid for terminal facilities. The promotion of the road is the outcome of a movement by Receiver Wolf, of the Kansas Midland; W. A. Caldwell, Cincinnati, O.; W. H. Arnold and C. N. Points, Shawnee.

SIAM—Press reports state that the Siamese government has decided not to raise a foreign loan at present; but the survey for the Chimalay Ry. is to be commenced immediately by the Royal Ry. Department, under the management of a board of control. About 3,000,000 (about \$1,815,000) will continue to be allowed annually for railway construction. H. Gehris, Ch. Engr., Royal Siamese State Ry. (Nagara Rajastina), Bangkok, Siam.

SOUTHPORT, WILMINGTON & WESTERN—This company has been incorporated in North Carolina, with a capital stock of \$10,000 a mile, to construct a railway from Southport to Wilmington, N. C., about 30 miles. Surveys are to begin soon. James Warrington, J. Carpenter Rhodes and Horace G. Kimes, of Philadelphia, Pa., are incorporators. Geo. H. Guthrie, Durham, N. C., represents the company.

WEST VIRGINIA SHORT LINE—Goch, Rinehart & Dennis, Richmond, Va., are reported to be rushing work on this new coal railway from New Martinsville to Clarksburg, W. Va., 59 miles. The maximum grade is 15 ft. a mile, and there will be three tunnels, the longest to be 3/4 of a mile in length. About 2,000 men are now at work; mostly negroes from Virginia and Kentucky. The grading is virtually completed, but no track has yet been laid. The contractors have agreed to complete the road from the Harrison county line to New Martinsville by Jan. 1. This will open up a means of transportation to and from the Piney Fork oil field. G. A. Burt, Pres., Parkersburg, W. Va.; J. V. Davies, Ch. Engr., 32 Nassau St., New York.

STREET AND ELECTRIC RAILWAYS.

BROCKTON, MASS.—The Brockton, Canton & Dedham St. Ry. Co. has been granted a franchise to build in this city. A \$1,000 forfeit is demanded.

HOLYOKE, MASS.—The aldermen have granted a franchise to the Holyoke St. Ry. Co. to extend its Oakdale line through Northampton St.

LYNN, MASS.—The Lynn & Boston R. R. Co. is reported to be at work building a new roadbed for double tracks between this city and Boston; estimated cost, \$130,000. E. C. Foster, Gen. Mgr., Lynn.

TEMPLETON, MASS.—Plans have been prepared by J. William Patston, Arch., 41 Front St., Worcester, Mass., for a brick and stone power station, 50-70 ft. to be erected for the Templeton St. Ry. Co. by the New England Electric Railroad Construction Co. It is proposed to install two 100-HP. boilers and two 80-HP. engines.

WILLIMANTIC, CONN.—Surveys are about to begin, according to reports, for the street railway projected by J. M. Pettis, Boston, Mass., and others. The company's office is in the Hayden Bldg., Willimantic.

ELMIRA, N. Y.—The Elmira & Seneca Lake Ry. Co. is pushing the construction of its line. The American Engineering Co., Philadelphia, Pa., is the general contractor for the road, and has placed the order for the 17 bridges required with the Berlin Iron Bridge Co., East Berlin, Conn.

NEW YORK, N. Y.—The Municipal Quick Transit Co. applied to the council Sept. 5 for a franchise to construct a 4-track elevated railway on both the East and North River water fronts, with cross-town lines from Desbrosses St. Ferry to Grand St., and across 14th and 42d Sts., and along the southern shore of the Harlem River. It is also proposed to build further extensions, and a line to Brooklyn.

PENN YAN, N. Y.—It is reported that the Penn Van, Kenka Park & Branchport Ry. is contemplating the extension of its line to Pulteney this fall, providing the right of way can be secured. C. L. B. Tyler, Supt.

LAKE HOPATCONG, N. J.—C. C. Vermeule, Civil Engr., 203 Broadway, New York, informs us that the newspaper reports regarding the proposed electric railway from Montclair to Morristown and Lake Hopatcong, are premature. Such a line, however, is located, and the right of way is being contracted for.

MONTCLAIR, N. J.—The council granted a franchise Sept. 11 to the North Jersey St. Ry. Co. for a street railway through Elm St. and Orange Road to the Orange line. David Young, Gen. Mgr., 29 Exchange Place, Jersey City.

PHILADELPHIA, PA.—The Philadelphia & West Chester Traction Co. has been granted a right of way over Gay St., West Chester. The company has also been granted a franchise in Downingtown. The contract for erecting a new \$17,000 car barn at Lanerch has been awarded to John R. Wiggins. A. N. Taylor, Pres., Philadelphia, Pa.

PITTSBURG, PA.—Reports state that the Munhall branch of the Monongahela St. Ry. Co., which connects Homestead with Munhall, will be improved and extended another mile. W. L. Mellon, Pres.—The Suburban Rapid Transit St. Ry. Co., which was merged with the 92d St. Ry., has a large force at work constructing a 2-mile extension to Whitehall. It is said that a new power house will be erected at once.

NEW CASTLE, DEL.—The New Castle & Delaware City Ry. Co. was incorporated Sept. 7, with a capital stock of \$100,000, to build a trolley system. Fred H. Treat and John G. Vogler, of Philadelphia, are incorporators.

GREENVILLE, S. C.—The Greenville Traction Co., composed of stockholders in the American Pine Co., Philadelphia, Pa., which already owns the city water and electric lighting plants here, have applied for a charter in this state to build an electric street railway system in this city. The new concern is capitalized at \$200,000, and will build five miles of line at once. It is proposed later to run a spur up to Paris Mountain, a summer resort six miles from here, and about the same time to build an extension

connecting this city with the Piedmont and Pelzer cotton mills. By the contract actual work must be begun within six months from the date of the franchise, which was granted in June, and five miles of the road completed within 12 months.

SAVANNAH, GA.—Two surveys have been completed for an extension of the Savannah, Thunderbolt & Isle of Hope Ry., from this city to Warsaw Island, 1 1/2 miles, at an estimated cost of \$19,700, exclusive of the electrical equipment and an additional power plant at Isle of Hope. Geo. Parsons, Pres., New York; Edw. J. Thomas, Engr., Savannah.

AKRON, O.—The Northern Ohio Traction Co. is reported to have placed a \$3,000,000 mortgage on its property, for the purpose of paying off mortgages on the Akron, Bedford & Cleveland R. R., and the Akron street car lines, and for constructing an extension to Barberton.

CHAGRIN FALLS, O.—The Cleveland & Chagrin Falls Electric R. R. Co. has been granted a franchise to build up Washington St. Geo. W. Hulbert, Ch. Engr.

GREENVILLE, O.—The commissioners of Darke county have granted a franchise to J. E. Lowes and J. E. Feight, of Dayton, to construct an electric line from Dayton to Greenville, via Brookville, Gordon and Jays.

TOLEDO, O.—The Chase Construction Co., Detroit, Mich., is reported to have been awarded the contract for constructing the Toledo, Fremont & Norwalk Electric Ry. from Toledo to Fremont, via Genoa and Woodville, including all work outside of the power house and bridges. The completed line will run from Toledo to Norwalk, 60 miles. Between Fremont and Toledo there will be 24 bridges to erect, the longest of which will have two 80-ft. spans over the Portage River. The contract for equipping the power house at Fremont has been let to the Westinghouse, Church, Kerr Co., Detroit, Mich. It is said that the Comstock Construction Co., which is behind the project, will string the wires and do its own electrical work. Work is expected to be completed by Dec. 1. Riggs & Sherman, Engrs., The Nasby, Toledo.

YOUNGSTOWN, O.—The commissioners of Mahoning county have granted a franchise to James Goodell, Ralph C. Ely and W. C. Manchester of Detroit, Mich., who propose to construct an electric line from Salem to Youngstown, via Canfield.

GOSHEN, IND.—The Goshen & Indiana Traction Co. was incorporated Sept. 5, with a capital stock of \$200,000, to build an electric line from Goshen to Angola, via Stouben, Lagrange and Elkhart counties, a distance of 54 miles. John F. Shuman, S. A. Wood and W. W. Hatch are directors.

DECATUR, ILL.—The property of the City Electric Ry. was sold in chancery, Sept. 6, to David S. Shellberger, Pres., for \$120,500. Considerable improvements will be needed.

WICHITA, KAN.—J. O. Davidson and T. G. Fitch, Wichita, and J. O. Goddard, Chicago, have been granted a franchise to construct 15 miles of street railway.

JOPLIN, MO.—Henry Kublo, St. Louis, Mo., is said to be interested in the construction of a proposed electric railway system in this city.

KANSAS CITY, MO.—The Metropolitan St. Ry. Co. has received the first installment of material for its many projected extensions. Construction on the Boulevard extension will soon be begun. It is the intention of the company to complete the reconstruction of the Brooklyn Ave. line as soon as possible. The changing of the Westport cable line to electricity will be finished by Dec. 15. D. W. Dozier, Engr.

DENVER, COLO.—An ordinance has been prepared for introduction in the council granting to the Denver City Tramway Co. the right to change its cable line to an electric system, to extend an electric line on East 8th Ave., from Broadway to Congress Park, to replace the one-horse car line on the north side by an electric line and to make other improvements. J. A. Butler, Engr. of Construction.

MURRAY, UTAH.—The commissioners of Salt Lake county have granted a franchise to the Salt Lake Rapid Transit Co. to extend its line from Murray to Sandy.

SALT LAKE CITY, UTAH.—Edmund Wilkes, Ch. Engr. of Valley Ry. Co., Salt Lake City, informs us that the proposed 15-mile line will run from this city to Bingham. About 15 miles have been graded, and 7 1/2 miles laid with track. James Campbell, Pres., Salt Lake City.

HAMILTON, ONT.—It is reported that the deal has been consummated which gives the Cataract Power Co. the possession of the Hamilton St. Ry., the Hamilton Radial Electric Ry. and the Hamilton & Dundas Ry. Extensions to Salt, Guelph and Brantford are projected. John M. Gibson, John Dickinson and John Kammerer, of Toronto, Ont., are interested.

MEXICO, MEX.—We are informed that the Gillett-Herzog Mfg. Co. Minneapolis, Minn., has been awarded the contract for erecting a car barn, 500x180 ft., for the District St. Ry., City of Mexico.

BARKING, ENGLAND.—Bids are asked by the council until Oct. 24 for the erection of the following plant: Section A—Water-tube boiler, with fittings, economizer, feed pump, etc.; B—Pipework, etc., in engine and boiler house; C—Two 100-K-W. steam dynamos (vertical enclosed high-speed engines); D—Main switchboard and connections; E—Motor and trailer cars, trucks and electrical equipment; F—Overhead line equipment, posts, etc.; G—Underground feeder cables, conduits, road work, etc. W. C. C. Hawtayne, Consult. Engr., 9 Queen St. Place, London, E. C.; Edwin H. Lister, Clk.

SOUTHAMPTON, ENGLAND.—Bids are asked by this city until Sept. 21 for the reconstruction of about 2 1/2 miles of tramways between the Southampton docks station and Portsmouth. R. R. Linthorne, Town Clk.

ELECTRIC LIGHT AND POWER.

ROCHESTER, N. H.—Reports state that parties are making efforts to purchase the Waumbeck property at Milton Mills, where it is proposed to build a light plant.

CHESTER, MASS.—The Chester Electric Light Co. proposes to put in a storage battery in connection with the generating plant this fall. Address E. Le Roy Gardner.

AMSTERDAM, N. Y.—J. Geo. Kaehler, Pres. and Mgr. Empire State Power Co., Rochester, N. Y., writes us that bids were wanted up to Sept. 5 for furnishing the machinery and for constructing the plant here; estimated cost, about \$2,500,000. W. C. Johnston, Niagara Falls, N. Y., has been engaged to build one plant at Schoharie Falls to develop 3,500 HP. No selection has been made as yet for the other four or five power sites. Reports dated Sept. 9 state that McDonough & Cunningham, Troy, N. Y., have been awarded the contract, at about \$75,000, for a dam for the plant near Mill Point. The dam will be 300 ft. long and 12 ft. high, and must be completed by Dec. 1. Sam'l Bolton, Jr., Lansingburg, N. Y., is interested.

MIDDLEPORT, N. Y.—The village board has declared the franchise granted last February to the Middleport Power Co. as forfeited. The board has granted a franchise for electric lights to G. F. Thompson and W. J. Sterritt, of this village, and Frank G. Lott, of Niagara Falls. The

board has also entered into a contract to light the village streets with 30 arc lights at an annual rental per arc light of \$56.66; the streets to be lighted on or before Dec. 1.

BROOKLYN, N. Y.—Local papers state that the Standard Oil Co. is to introduce electricity as the motive power in place of steam in its works on Newtown Creek. The expense of the change will be \$30,000, and if the experiment is successful, electricity will be used for driving pumps and operating machinery in the other works of the company.

ENGLEWOOD, N. J.—Shepley, Rutan & Cooledge, Boston, Mass., and Chicago, Ill., have completed plans for an electric light and power-house at Englewood for the Commonwealth Electric Light Co., now a branch of the Edison company. The roof will be supported by structural iron, and there will be cast-iron finish to all doors and windows. It will measure 112x210 ft., and is estimated to cost, including equipment, about \$200,000.

BELLEVUE, PA.—Bids are asked until Oct. 4 for constructing a power house at Davis Island dam, Ohio River. Wm. Martin, Resident Engr., Bellevue; Maj. W. H. Bixby, U. S. Engr., Cincinnati, O.

PHILADELPHIA, PA.—A. Raymond Raff has been awarded contracts for new work and additions, to cost over \$30,000, which will include the new distributing station to be erected at 1622 North 18th St., for the Pennsylvania Heat, Light & Power Co., to cost \$17,000.

WILMINGTON, DEL.—It is stated that 12 properties adjoining the property of the Wilmington Coal Gas Co. have been purchased by the Bay State Gas Co., to be used for the erection of a light, heat and power plant.

HAMPTON, VA.—Plans for the power house and ice plant for the Newport News & Old Point Comfort Ry. & Electric Co. have been completed by Henry Brauns, Builders' Exchange Bldg., Baltimore. The building will be 100 ft. wide and 172 ft. deep, to be built of brick. The foundations and piling have already been completed. There will be a boiler capacity of 2,000 HP., and generators and dynamos of 3,000 HP.

BRIDGEPORT, W. VA.—The Bridgeport Electric Light Co., it is stated, will build a new plant here.

WADESBORO, N. C.—This place has voted to issue bonds for a plant and water-works to cost \$25,000.

DALTON, GA.—Dr. John W. Green, Dalton, has been granted a franchise for a plant.

MILLEDGEVILLE, GA.—A plant is to be built to develop Fruman's Shoals water power; estimated cost, \$400,000; J. F. Wilson is reported as interested.

UNIONTOWN, ALA.—The Westinghouse Electric & Mfg. Co., Pittsburg, Pa., have been awarded the contract for a plant at about \$14,000.

CUMBERLAND FALLS, KY.—Arrangements are being made by the Cumberland Falls Power Co. to build the proposed plant here, at a cost of about \$150,000. Capital stock, \$500,000. C. W. Banta, Pres.; L. H. Morgan, Treas., Louisville, Ky.; Jas. C. Allin, Secy., Louisville.

GIRARD, O.—It is probable that this place will vote at the coming election on the question of a municipal plant, to cost \$6,000.

ST. PARIS, O.—The following contracts for a plant have been let: Dynamos, etc., the Ridgeway Dynamo & Engine Co., Ridgeway, Pa., \$6,550; the electrical equipment, the Triumph Electrical Co., Cincinnati, O., \$2,330; pole line, H. M. & M. B. Saxby, Columbus, O., \$5,140.

HOWARD CITY, MICH.—The plant owned by the city was destroyed by fire Sept. 4, causing a loss of \$5,000.

SAGINAW, MICH.—It is stated that the Bartlett Illuminating Co. has acquired the property of the A. F. Bartlett Co., and has an option on the Saginaw Electric Light & Power Co., of the west side. It is expected a deal will be shortly consummated and the three plants merged into one.

TUSCULA, ILL.—J. S. Culver, Treas., Springfield, Ill., writes us that the city has granted a franchise to the Culver Electric Co. for the construction of a plant, water-works and hot air or steam-heating plant. Plans are being made for the station to be built on grounds the company has purchased in the heart of the city, and excavations have been begun on the reservoir. The water supply is from an artesian well 3,080 ft. deep. It is the intention of the company to have the entire plant installed by December 1. It is in the market for cast-iron pipe, pumping machinery, dynamos, engines, boilers, etc. J. H. Culver, Pres., Decatur, Ill.

DULUTH, MINN.—The council has made an appropriation for securing the services of an expert electrical engineer to prepare plans and specifications for a 500-light street lighting plant. J. H. Crowley, Chn. Com.

STILLWATER, MINN.—The following bids were received Sept. 5 for lighting the city for one year, the bids, however, being based on a 5-year contract: River Power Co., New Richmond, Wis., \$5,700; Stillwater Gas & Electric Light Co., \$6,000; Excelsior Electric Light Co., \$5,000; A. T. Jenks, of the Gas & Electric Co., \$4,225.

HASTINGS, NEB.—Another election will soon be held to vote on the question of issuing \$20,000 in bonds for a plant.

DE WITT, ARK.—Bids are asked until Sept. 25 for furnishing the materials and for constructing a plant. The plant will have capacity for eight 1,200-c. p. arc and 200 16-c. p. incandescent lights. There will be required a boiler of 30 HP., engine of 25 HP., one dynamo of 250 lights of 16-c. p., one ten-light machine, 1,200-c. p. each, wire insulators, cross arms, pins, etc., and the necessary equipment for a power house. Address R. A. Houston, Owner and Engr., De Witt.

CRIPPLE CREEK, COLO.—Press reports state that Chicago interests have secured control of the Fremont Electric & Power Co. M. L. Stern, Elec. Engr.; H. N. Siegfried, Secy. and Gen. Mgr.

CRIPPLE CREEK, COLO.—Reports state that a company proposes to build a plant in this district. R. M. Jones, Elec. and Civil Engr., Bingham Tunnel Co., Bingham, Utah, is interested.

VIRGINIA CITY, NEV.—The Truckee River General Electric Co. has acquired title to both sides of the Truckee River for four miles, and will put in a plant to furnish power to the Comstock mines. Pres., Mortimer Fleishacker; Vice-Pres., S. D. Rosenbaum; Secy., Herbert Fleishacker.

TACOMA, WASH.—Local papers state that Commissioner of Public Works Hacker will advertise for bids at once for the electric power service of the city. The bids are to be on a meter basis, and to figure on a basis of 2,000,000-K-W. hours per year. Contractors may bid on supplying current, using the plant which the city owns at present, or they may supply current through a plant outside.

SAN FRANCISCO, CAL.—Bids are asked until 2.30 p. m., Sept. 18, for lighting the streets with electricity and gas for one year. J. A. Russell, Clk. Bd. Supervisors.—The Independent Electric Light & Power Co. has filed its specifications for the proposed conduits for its wires. The

conduits will be constructed on every important street in the city. Address Claus Spreckles and A. B. Spreckles.

SANTA ANA, CAL.—Reports state that the franchise for a plant granted by the trustees a month or more ago to Belmont Perry, has been accepted by President Barker of the Edison Electric Co., who says that work on new plant will be commenced immediately; cost, \$60,000.

ALMONTE, ONT.—This place will vote Sept. 25 on the question of issuing \$25,000 in bonds for a plant.

NIAGARA FALLS, ONT.—The power house and the machinery therein, belonging to the Niagara Falls Park & River Ry. Co., was destroyed by fire Sept. 4, causing a loss of about \$75,000.

QUEBEC, QUE.—The Engineering Contract Co., 71 Broadway, New York, is reported to have been awarded the contract by the Canadian Electric Light Co. for building the concrete dam 900 ft. long for the power plant at Chaudiere Falls. Besides this dam, the company will construct gates, bridges, earthen embankments, levees and race, the whole to be completed and in running order by March 10. With these the company guarantees to supply a minimum of 5,000 HP., and will supply electric light and Chaudiere Valley Railway Co. will be operated with the company's power, and other lines will be constructed in the counties of Levis, Dorchester, Bellechase and Lotbiniere. John Breakey, Pres. Canadian Electric Light Co., Quebec.

NEW COMPANIES.—Monroe Light & Power Co., 705 Broad St., Newark, N. J.; \$10,000; John S. Day, Geo. S. Day, Newark, N. J.; Ignatius Weltner, New York, N. Y.; Vincennes Electric Lighting Co., Vincennes, Ind.; \$75,000; J. H. Brown, G. Mayer, R. O. Mayer.

BRIDGES.

ROCKLAND, ME.—We are informed that a new steel bridge 160 ft. long and 18 ft. wide will be built across the Blackington and Ulmer quarries.

EXETER, N. H.—We are informed that the proposed bridge across Hampton River will not be built until an appropriation is made by the next Legislature in 1901.

EAST HAMPTON, CONN.—Local papers state that the contract for several small bridges in this town has been awarded to C. W. Bakesiee & Co., New Haven.

BROOKLYN, N. Y.—Plans will soon be prepared for the proposed viaduct across Newtown Creek, from Manhattan Ave., Greenpoint, to Vernon Ave., Long Island City. The structure will be 24 ft. high.

CLINTON, N. Y.—Local papers state that a new bridge will be constructed across the old canal on Cottage St. to replace the present one, which has been condemned. Street Commissioner F. A. Gruman has charge of the work.

ELMIRA, N. Y.—The Berlin Iron Bridge Co., East Berlin, Conn., has been awarded the contract for furnishing 17 bridges for the new Elmira & Seneca Lake Ry., which is being built by the American Engineering Co., Philadelphia.

HUDSON, N. Y.—The New York Central & Hudson River R. R. Co. will construct a new iron bridge across the outlet to the South Bay below Standard Oil Station, according to reports.

SARATOGA, N. Y.—The Saratoga Traction Co. has awarded to the Berlin Iron Bridge Co., East Berlin, Conn., the contract for constructing its new viaduct at this place.

PATERSON, N. J.—At a meeting of the freeholders on Sept. 9 it was voted to ask for bids for the construction of a steel bridge at West St.

PITTSBURG, PA.—It is stated that the Pittsburg, Cincinnati, Chicago & St. Louis R. R. Co. will reconstruct three spans of the Temperanceville viaduct and three spans of the Monongahela bridge.

PITTSBURG, PA.—We are informed that the contract for the Marietta bridge has been let to the Pittsburg Bridge Co.—Plans for the proposed steel trestle approach to connect Hawkins Station with the West Braddock bridge are being prepared by Wilkins & Davison, Engrs.

READING, PA.—The Montgomery county commission has awarded the contracts for the construction of bridges in the county as follows: Towamencin, W. H. Gulek, \$1,800; Frederick, Pittsburg Bridge Co., \$2,085; Lower Salford, Pittsburg Bridge Co., \$2,085.

SHARPSBURG, PA.—Plans for the proposed reconstruction of Butler St. bridge have been approved by the secretary of war.

WILMINGTON, DEL.—The war department has approved of the proposed bridge across the Brandywine Creek at Seventh St., to cost \$25,000, according to reports.

BALTIMORE, MD.—Bids will soon be asked for constructing a new bridge on the road that leads from Ruxton to the Falls Road, to replace the one recently destroyed.

FREDERICK, MD.—Bids are asked by the county commissioners until Sept. 14 for constructing an 80-ft. bridge over the Catactin Creek at this place; estimated cost, \$35,000.—The contract for constructing a steel bridge over Catactin Creek at Leatherman's Ford has been awarded by the county commissioners to the Groton Bridge Co.

KEYSER, W. VA.—A new bridge is to be erected across New Creek at Ree's Tannery, according to reports.

ATLANTA, GA.—It is stated that Alderman I. S. Mitchell will at the next meeting of the council introduce resolutions authorizing the acceptance of the Collins Park & Belt R. R. Co.'s offer of \$50,000 toward the construction of the proposed Whitehall St. viaduct.

ST. AUGUSTINE, FLA.—A new bridge of cypress, 600 ft. long, over Deep Creek, has been decided as necessary by the county commissioners who have authorized the construction.

BROOKHAVEN, LA.—The Indiana Bridge Co., Muncie, Ind., received on Sept. 5 a contract from the board of supervisors for constructing an iron bridge across Homochitto River, on the Brookhaven and Union Church Road.

LOUISVILLE, KY.—Bids are asked until Sept. 15 for constructing two bridges. R. H. Young, County Engr., writes that the bridges will be 24 ft. and 20 ft. in length, with either steel or concrete arches; also that the construction of several concrete arches in the near future is quite probable. The contract for 3,500 yds. of broken stone will be let at the same time.

BIRMINGHAM, O.—The county commissioners received on Sept. 5 the following bids for the new bridge across the Vermillion River at this place: Bridge and viaduct—Toledo Bridge Co., \$9,875; Massillon Bridge Co., \$9,500; Pittsburg Bridge Co., \$15,200; Brackett Bridge Co., \$9,900; Canton Bridge Co., \$10,900; Variety Iron Works, \$11,423; Iron Substructure Co., \$9,975; King Bridge Co. (accepted), new bridge, old viaduct, \$8,038; new span, old floor, beams and viaduct, \$5,008; new bridge and viaduct, \$9,198; Grading—Clary & Lambert, \$1,542; J. C. Parker, \$1,070; Masonry—Riekeman & Croft, \$2,427; E. Schumer, \$2,194; J. C. Parker, \$1,066; Trullitt & Britton, \$2,461.

CINCINNATI, O.—City Engineer Punshon estimates the cost of constructing a viaduct at Liberty St. at \$23,822.

CLEVELAND, O.—The council has authorized the director of public works to advertise for bids for the reconstruction of the Willson Ave. bridge; cost, \$40,000.

INDIANAPOLIS, IND.—Plans have been completed by City Engineer Jett for the bridges over Fall Creek at Illinois St. and Indiana Ave., over the canal at Wabash St. and over Pague's Run at Pine St. and Market St. Bids will be asked soon for the work.

MARQUETTE, IND.—Local papers state that the Indiana, Illinois & Iowa R. Co. will construct a bridge across the Illinois River at this place, to be about one mile long; estimated cost, \$1,000,000.

JOLIET, ILL.—It is stated that the question of erecting a temporary bridge at Jefferson St., so as to complete the repairs to the Cass and Jackson St. bridges, is being considered by the sanitary board.

JOLIET, ILL.—It is stated that two new bridges will be erected at this place to replace the present structures.

HUDSON, WIS.—The Chicago, Milwaukee & St. Paul Ry. Co. will raise its three wooden bridges which connect some of the leading streets of the city; estimated cost, \$6,000.

MILWAUKEE, WIS.—Plans for the proposed new viaduct at Grand Ave. have been completed by County Engineer Frederick Kirchmann and will be submitted at the next meeting of the county board; estimated cost, \$150,000.

DES MOINES, IA.—Plans for the proposed steel bridge over the Des Moines River on North Sixth St. have been completed by the city engineer; estimated cost, \$45,000. Bids will soon be asked.

WASHINGTON, IA.—Bids are asked until Sept. 28 for constructing a bridge across the Iowa River between Washington and Johnson counties at Hollands Ferry, as stated in our advertising columns. T. L. Crowley, County Auditor, Iowa City.

DULUTH, MINN.—We are informed that Judge Ensign has designated the amount of work to be done by the respective railway companies on the Garfield Ave. viaduct, which will be 4,868 ft. long, as follows: The St. Paul & Duluth R. R. and the Northern Pacific Ry. will jointly build the 792 ft. of the north end of the viaduct. The next 319 ft. will be built by the Duluth Transfer Ry. Co. and the remaining 757 ft. by the Northern Pacific Ry.

ST. PAUL, MINN.—City Engineer Clausen is preparing an estimate of the cost of replacing the Western Ave. bridge, which has been condemned and closed, by one of the spans of the Wabasha St. bridge.

RED LODGE, MO.—We are informed that the county commissioners have awarded the contract for a three span wagon bridge across the Yellowstone, between Laurel and Park City, to a Leavenworth company, at \$9,980.

ROSELDALE, MO.—It is stated that a new steel bridge will be erected across the 102 River at this place.

COLUMBUS, TEX.—Reports state that an election will probably be held soon to vote on the question of issuing \$30,000 in bridge bonds.

GLENDIVE, MONT.—Bids are asked until Oct. 14 for taking down swing span, for taking down spans 1 and 3, and for the purchase of the iron work of the old bridge over Yellowstone River, as stated in our advertising columns. James McCormick, County Clerk.

POMEROY, WASH.—We are informed that bids are asked for constructing a 60-ft. bridge on lower Deadman.

SOUTH BEND, WASH.—Bids are asked until Sept. 19 for constructing a bridge across the Willapa River on the county road at Lilly-Moran crossing; also for constructing 648 ft. of bridge approach. J. H. Dayton, County Clerk.

CHICO, CAL.—The following bids have been received by the board of supervisors for constructing a stone pier to the Feather River bridge at Oroville: T. W. Reese, complete stone and iron bridge, \$70,000; Cotton Bros., stone pier, \$4,250; Cal. Bridge & Constn. Co., stone pier, \$8,962.

LOS ANGELES, CAL.—It is reported that City Engineer Olmstead is quoted as stating that the Santa Fe Pacific Ry. proposes to construct a steel bridge to replace the wooden structure now in use at Buena Vista St.

NATIONAL CITY, CAL.—Bids are asked until Oct. 2 for constructing a bridge on National Ave., near 18th St. O. W. Grant, City Clerk.

SAN FRANCISCO, CAL.—It is stated that the construction of a steel truss bridge, 85 ft. long, over the railroad tracks at San Jose Ave., has been proposed.

WILLOWDALE, ONT.—P. S. Gibson & Son, Engrs., write us that the following bids have been received for the superstructure of a 100-ft. steel bridge over the forks of the River Don in York county: Hamilton Bridge Co., \$1,200 (accepted); Dominion Bridge Co., \$1,385; Dixon Bros., \$1,380; Stratford Bridge & Iron Works, \$1,400; King Bridge Co., \$1,411; Imperial Bridge & Iron Works, \$1,425.

#### BUILDINGS.

NASHUA, N. H.—Bids are asked by the U. S. fish commission, Washington, D. C., until Sept. 23, for constructing a superintendent's dwelling on the commission's property at Nashua. Geo. M. Bowers, Commr.

PORTSMOUTH, N. H.—The following bids were received by the bureau of yards and docks, Washington, D. C., Sept. 2, for constructing an electric light building and boiler room at the navy yard at Portsmouth: Guy C. Emerson and William H. Penn, Boston, Mass., and Jersey City, N. J., \$36,400; if crane is used, \$42,500. Meade, Mason & Co., Boston, Mass., \$29,870. Connors Brothers, Lowell, Mass., \$33,000. P. O'Hearn, Lowell, Mass., \$37,520.

POULTNEY, VT.—Bids are asked until Sept. 16 for erecting the C. M. Church building; bond, \$4,000. Address Thos. T. Jones.

BOSTON, MASS.—Bids are asked by the park commissioners, 64 Pemberton Square, until Sept. 15, for erecting a locker and lavatory building at the Christopher Gibson playground in Dorchester; bond, \$2,000. Wales & Holt, Archts., 22 Congress St.

NEWTON, MASS.—Bids are asked by this city until Sept. 15 for erecting a brick school building on Park St. Address Geo. H. Elder, Pub. Bldgs. Comr., West Newton; Hartwell, Richardson & Driver, Archts., 62 Devonshire St., Boston, Mass.

NORTH ADAMS, MASS.—The council has authorized the city to borrow \$55,000 for the erection of a new school building on the north side.

WORCESTER, MASS.—Frost, Briggs & Chamberlain, People's Savings Bank Bldg., are perfecting plans for a new high school building to be built on Richards and Freeland Sts.

WARWICK, R. I.—The taxpayers of Warwick have voted to issue \$300,000 in town bonds, \$20,000 of which will be used in erecting a high school building.

BRIDGEPORT, CONN.—Bids are asked by the committee on new city buildings until Oct. 7 for constructing a new building for the departments of police and charities on Fairfield Ave. Carroll B. Adams, Clk.; Warren R. Briggs, Archt., 338 Main St.

BROOKLYN, N. Y.—The following bids were received by the department of parks, New York city, Sept. 7, for erecting a greenhouse in Prospect Park, with all appur-

tenances; all hidders of New York: T. W. Weathered, 46 Marion St., \$21,000; Hitchings & Co., 233 Mercer St., \$19,270; Lord & Burnham Co., St. James Bldg., \$17,830.

BEDFORD, N. Y.—Bids are asked until Sept. 22, postponement from Sept. 15, for grading, excavating, road-making, masonry work, retaining walls, etc., at the New York State Reformatory for Women, as previously advertised in Engineering News. Jas. Wood, Pres. Bd. Mgrs.

BINGHAMTON, N. Y.—Bids are asked until Sept. 19 for installing and connecting two horizontal tubular boilers in the boiler house of the Binghamton State Hospital. John B. Stanbrough, Pres. Bd. of Mgrs.

ELLENVILLE, N. Y.—Bids are asked by the Eastern New York Reformatory until Sept. 18 for erecting a heating system, boiler, plumbing and electrical works for the central building and north wing. George Deyo, Chn. Bd. of Mgrs.

GARDEN CITY (L. I.), N. Y.—The Garden City Hotel, owned by the A. T. Stewart estate, was destroyed by fire Sept. 7, causing a reported loss of \$200,000; insurance, about \$100,000. George L. Hubbell, Gen. Supt.

NEW YORK, N. Y.—Bids are asked by the board of education, 146 Grand St., until Sept. 18, for alterations and repairs at public schools 11, 47, 54 and boys' high school, Borough of Manhattan; for heating additional story to public school 338, Borough of the Bronx; for alterations and addition to heating and ventilating apparatus at public school 17, Borough of Richmond; for alterations, repairs, etc., at public schools 7 and 31, Borough of Queens; also for completing the work of erecting new public school 44, Borough of Manhattan; also for erecting additions to public schools 30 and 58, Borough of Queens.—Plans have been filed by John McKelvey, 412 West 47th St., for an 8-story brick flat building at 50th St. and 7th Ave., to cost \$140,000. Thom & Wilson, Archts.; by Chas. H. Beer, 317 East 125th St., for five 5-story brick flat buildings on 17th St., near Washington Ave., to cost \$127,000. Neville & Bagge, Archts., 217 West 125th St.; by Wm. E. Deiler, 62 West 98th St., for a 4 and 5-story brick dwelling on 72d St., near West End Ave., to cost \$75,000. G. A. Schellenger, Archt., 130 Fulton St.—The following bids were received by the department of parks, Arsenal Bldg., Sept. 7, for erecting the new southwest corner wing and lecture hall, etc., for the American Museum of Natural History: Thomas Cockerill & Son, 220 4th Ave., \$181,000; Jas. R. Smith, 251 West 71st St., \$241,753; Thomas Dwyer, 34 West 16th St., \$229,200.

NEW YORK, N. Y.—Bids are asked by the department of parks, Arsenal Bldg., until Sept. 21, for constructing four toilet buildings in the New York Zoological Park in Bronx Park; for 200 park settees; also for erecting the new lecture hall wing and other works of the enlargement of the American Museum of Natural History, Manhattan Square.—Bids are asked by the department of public charities, foot of East 26th St., until Sept. 25, for the installation of a pressure water system, fire lines and hose, the laying of Croton water mains, the alterations to coal yard and present surface railway tracks, the construction of a new platform weighing apparatus, derrick engine, etc., at Bellevue Hospital and grounds.

PORT JERVIS, N. Y.—The erection of a new public building to furnish accommodations for the board of education, the public library and the village trustees is contemplated. Wm. L. Cuddeback, Chn. of Com.

WEST POINT, N. Y.—We are informed that the following bids were received Sept. 4 for the reconstruction and remodeling of the library building for the U. S. Military Academy, West Point, as advertised in Engineering News: Lieut. Malvern-Hill Barnum, Asst. Q.-M.; Otis & Campbell, Kingston, N. Y., \$69,787; alternate bids: A, deduct \$273; B, add \$1,230; C, add \$943; D, add \$9,127; E, add \$865; F, add \$3,125; G, deduct \$151; H, add \$2,312; I, deduct \$492. Richard L. Walsh, 47 Cedar St., New York, \$72,724; A, deduct \$500; B, add \$1,000; C, add \$1,500; F, add \$2,500; G, deduct \$500; H, add \$1,500; I, deduct \$500; using Fenton book stack; if Green hook stack is used, add \$3,000.

YONKERS, N. Y.—A new 2½-story brick dormitory, 45 x 70 ft., will be erected in this city by the Leake & Watts Orphan Asylum, 82 William St., New York, to cost about \$30,000.—It is reported that the Flynt Building Construction Co., Palmer, Mass., has been awarded the contract for erecting a new 2-story storehouse, 100 x 110 ft., for the Otis Elevator Co., to cost about \$45,000; also a machine shop, 250 x 70 ft., to cost about \$75,000.

ENGLEWOOD, N. J.—At a special election in this city Sept. 5 the proposition to issue \$45,000 in bonds for a new city hall, \$60,000 in school bonds, \$25,000 street improvement bonds and \$10,000 in sanitary improvement bonds was defeated.

MOUNT HOLLY, N. J.—The freeholders of Burlington county have adopted a committee's report providing for the erection of a new insane asylum building to accommodate 150 patients; estimated cost, \$60,000.

NEWARK, N. J.—The governors of the Newark Athletic Club have adopted the plans of Boring & Tilton, 57 Broadway, New York, for the proposed new 3-story club house, to cost about \$50,000.

TRENTON, N. J.—Bids are asked by the commissioners of public instruction, 220 East Hanover St., until Sept. 26 for erecting a new high school building, with and without heating and ventilation. H. E. Finch, Archt., 144 East State St.

PHILADELPHIA, PA.—Bids are asked by the bureau of yards and docks, Washington, D. C., until Sept. 16, for the steel work for a 2-story building, about 51 x 272 ft., at the League Island navy yard.—It is reported that John McCrea, Lippincott Bldg., will erect an apartment building at 37th and Ludlow Sts., to cost about \$200,000.

PITTSBURG, PA.—W. F. Trimble & Co. have been awarded the contract for erecting an 8-story storage warehouse, 48 x 136 ft., at 12th and Penn Sts., for the J. N. McCullough heirs, to cost about \$200,000.

SCRANTON, PA.—Plans are asked until Oct. 15, according to reports, for the new 4-story Y. M. C. A. building, 100 x 158 ft., to cost about \$150,000.

TURTLE CREEK, PA.—D. K. Miller, Pittsburg, is preparing plans for a business block for A. H. Sias and J. B. Holland.

WARREN, PA.—Bids are asked until Sept. 15 for constructing two buildings at the State Hospital for the Insane at Warren. R. B. Stone, Chn. Comr.

WASHINGTON, D. C.—Bids are asked by the district commissioners until Sept. 23 for constructing a manual training school building at Rhode Island Ave. and 7th St., N. W.—Plans are being prepared, according to reports, for a convent and chapel to be erected in this city for the Sisters of the Perpetual Adoration by Mrs. Thos. F. Ryan, 229 West 72d St., New York.

WASHINGTON, D. C.—Alonzo O. Bliss has awarded to W. E. Spelr the contract for erecting a 30-apartment flat at 1st and B Sts., N. W., at an estimated cost of \$75,000.—The district commissioners have awarded the contract for constructing two truck houses to John Hughes, Jr., of Baltimore; that on Whitney Ave. to cost \$12,489, and the Georgetown house to cost \$12,638.

NORFOLK, VA.—The contract for erecting the Taylor building on Granby St. has been awarded to E. Tattersall, at \$25,800.

RICHMOND, VA.—Wirt A. Chesterman, Richmond, has been awarded the contract for erecting the new station building in this city for the Southern Ry., at a total cost of \$60,000. F. P. Milburn, Archt., Charlotte, N. C.

CHARLESTON, S. C.—Bids are asked by John Simpson, Q.-M. Gen., Atlanta, Ga., until Sept. 21, for constructing a barrack building at Fort Sumter.

ALBANY, GA.—The commissioners of Dougherty county have decided to erect a new jail building, to cost \$15,000.

ELLENVILLE, GA.—Algeron Blair, Macon, Ga., has been awarded the contract for erecting the new court house for Schley county at Ellenville.

PENSACOLA, FLA.—Bids are asked by John Simpson, Q.-M. Gen., Atlanta, Ga., until Sept. 30, for constructing one barracks building and two sets of officers' quarters at Fort Pickens.

NEW ORLEANS, LA.—Bids are asked until Sept. 25 for erecting school buildings in the 6th and 7th districts. W. S. Douglas, Comptroller.

DICKSON, TENN.—The council has accepted the bid of the Pauly Jail Bldg. & Mfg. Co., St. Louis, Mo., for erecting a workhouse and jail building in Court Square, at \$5,400.

KNOXVILLE, TENN.—Bids are asked until Sept. 15 for erecting a city hospital building, after plans by Baumann Bros., Knoxville. Jos. T. McTeer, Chn. of Com.

DAYTON, O.—Bids are asked by the fire commissioners until Oct. 9 for erecting a 2-story brick engine house at 34 and Euclid Sts. E. F. Pryor, Pres.; Peters, Burns & Pretzinger, Archts.

NATIONAL MILITARY HOME, O.—Bids are asked by the National Home D. V. S. until Sept. 19 for erecting a brick addition to the post store and barrack No. 21. Address M. McCoy, Treas.; Peters, Burns & Pretzinger, Archts., Dayton, O.

JULIETTA, IND.—The commissioners of Marion county have awarded the following contracts for work in connection with the construction of the new county asylum at Julietta: Steam heating, George W. Keyser, \$6,524; steel beams, Hetherington & Berner, \$593; laundry fixtures, F. M. Watkins Co., Cincinnati, O., \$2,100; plumbing and sewerage, Freaney Bros., \$6,768; electrical work, Charles W. Meikel, \$2,580; well 6 ins. in diameter, 125 ft. deep or more, Charles Krauss, \$275 a ft.

MARSHALL, MICH.—The school district has voted to issue \$20,000 of bonds for erecting a new high school building.

CHICAGO, ILL.—Bids are asked by the board of education, 109 Randolph St., until Sept. 22, for erecting an addition to Dore school building on West Harrison St., near Halsted St. W. B. Mundie, Archt., 1117 Schiller Bldg.—A building permit has been granted for erecting the proposed 6-story Wesley building at Dearborn and 25th Sts., to cost \$225,000.

OTTAWA, ILL.—A fire here Sept. 8 destroyed St. Xavier's Academy and the Sisters of Mercy convent buildings. Reported loss, \$75,000; insurance, \$40,000.

AMES, IA.—Plans are being prepared for two new large buildings for the state agricultural school at Ames, according to reports. Liebbe, Nourse & Rasmussen, Archts., Des Moines, Ia.

CEDAR RAPIDS, IA.—Contracts will be let this month for erecting a brick and stone auditorium building, 106 x 136 ft., for the Cedar Rapids Auditorium Co., to cost about \$20,000. Chas. A. Dieman, Archt.

COUNCIL BLUFFS, IA.—The board of education has decided to award the contract for erecting the new high school building to George F. Hughes, at \$57,700. Cox & Schoentzen, Archts.

MASON CITY, IA.—The proposition of erecting a new court house at this place for Cerro Gordo county will probably be voted on at the November election.

MINNEAPOLIS, MINN.—John Wunder, Lumber Exchange, has been awarded the contract for erecting the new east side high school building after revised plans by E. S. Stebbins, at \$67,600.

PARK RAPIDS, MINN.—A special election will be held here Sept. 21 to vote on the proposition of erecting a new court house for Hubbard county to cost \$15,000.

AUBURN, NEB.—William Rowells & Co., Colfax, Ia., have been awarded the contract for erecting the new Nemaha county court house, work to be completed within 180 working days. The Johnson Stone Co. will furnish a white limestone for the building.

WARSAW, N. DAK.—Bids are asked until Oct. 2 for erecting a Roman Catholic church building for the Polish congregation of St. Stanislaus, at Warsaw, 5½ miles east of Minto. Address Rev. Frank Garolowier, Warsaw.

CANTON, S. DAK.—Plans have been prepared for a 2-story brick and stone government asylum building, 114 x 184 ft., to be erected here for insane Indians; estimated cost, \$4,000. John Charles, Archt., Menomoni, Wis.

BROWNWOOD, TEX.—Bids are asked by the Temple Grocer Co. until Sept. 25 for erecting a 1-story and basement stone building, 125 x 80 ft.

GALVESTON, TEX.—Bids are asked until Sept. 25 for erecting a 5-story building for the Improvement, Loan & Trust Co. George H. Stowe, Archt., 220 22d St., Galveston.

SHOSHONE AGENCY, WYO.—Bids are asked by the office of Indian affairs, Washington, D. C., until Oct. 5, for erecting a stone laundry building at the Shoshone boarding school, Shoshone Agency. H. G. Nickerson, U. S. Indian Agent, Shoshone Agency.

OAKLAND, CAL.—The council has accepted the offer of Andrew Carnegie to give \$50,000 for a new library building, provided that at least \$4,000 be given yearly for its maintenance.

SAN FRANCISCO, CAL.—The board of regents of the University of California accepted the plans of M. Bernard, of Paris, Sept. 7, for the new buildings for the university, to be constructed at the expense of Mrs. Phoebe Hearst. It is estimated that the new buildings will cost between \$7,000,000 and \$8,000,000, and competition for the contract has been opened to the world. A great number of plans were submitted, which were finally sorted out by the international commission, until only seven sets remained.

DENBIGH, WALES.—Bids are asked until Sept. 25 for the purchase of the following boilers, etc., at the North Wales Asylum: One Robey's 10-HP. nominal loco. type tubular boiler, nearly new, 80 lbs. working pressure; one Clayton & Shuttleworth ditto; one Cornish boiler (old), 50 lbs. ditto; one large saddle boiler for heating apparatus; three small vertical boilers for ditto; one tubular boiler for high-pressure heating, and quantity of pipes; one 8-HP. steam engine, modern construction, turned flywheel for two driving belts, cylinder 10 ins. diameter with 10-in. stroke, high-speed governors, force pump, etc., complete. Wm. Barker, Clk.

TALGARTH, WALES.—W. Williams, Pontypridd, has been awarded the contract for erecting the Brecon and Radnor joint asylum building at £110,008 (\$55,040).

## WATER-WORKS.

MILTON, N. H.—We are informed that this place will put in its own works.

PROCTOR, VT.—The village trustees have been granted authority to enlarge the works, at a cost of about \$10,000.

WILLIAMSTOWN, MASS.—The Williamstown Water Co. proposes to increase its water supply. H. M. Geer, Engr., Ballston Spa, N. Y.

ADAMS, N. Y.—The Adams Water Co. has been granted an extension of 25 years to its franchise. A number of improvements to the works will be made at once, as the present water supply is considered inadequate. Address F. H. C. Reynolds.

CANANDAIGUA, N. Y.—This place voted Sept. 5 against improving the works at a cost of \$10,000.

DUNKIRK, N. Y.—The water board has decided to purchase a 250-HP. water tube boiler and to lay mains in six streets. Councilman Hequeembourg, Chn. Com.

LANCASTER, N. Y.—An election will be held early next month to vote on the question of accepting the proposition for a water supply to be furnished by the Crystal Spring Water Co., Dr. F. P. Vandenberg, Pres., Erie County Bank Bldg., Buffalo.

LANSINGBURG, N. Y.—McDonough & Cunningham, Troy, are reported to have been awarded the contract for building a new dam and reservoir, at about \$60,000.

LIMA, N. Y.—An election will be held Sept. 22 for constructing works, to cost about \$23,000.

NEW YORK, N. Y.—Mayor Van Wyck has signed the resolution authorizing the issue of bonds to the amount of \$570,000 to pay for the franchise and plant of the Long Island Water Supply Co. This is one of the resolutions which the council was forced to pass after mandamus proceedings had been brought. The company is not in a position at present to fulfill its contract, and its mains have been connected with the Brooklyn water supply.

ITICA, N. Y.—Reports state that negotiations are in progress for the purchase by the Baltimore Trust & Guarantee Co., of Baltimore, Md., of the two water companies of Itica. A new company will be formed to take over the properties. It will issue 5% bonds to the amount of \$3,000,000, of which \$950,000 will be reserved for future extensions, leaving \$2,050,000 to be issued. The stock issues will include \$2,500,000 of preferred and \$500,000 of common.

WHITE PLAINS, N. Y.—Bids are asked until Sept. 20 for the purchase of 800,000 of 3/4% water bonds. Wm. B. Sutherland, Cy. Clk.; S. C. Miller, Pres.

ORANGE, N. J.—The water committee has been directed to advertise for new bids for a pump to cost about \$18,000 and water pipe, gates, etc., to cost \$3,000, for the pumping station at Campbell's Pond.

FORD CITY, PA.—Bids are asked until Sept. 15 for furnishing and laying 2,000 ft. of 10-in. and 1,100 ft. of 6-in. pipe. R. M. Douglas, Engr.; R. G. Naysmith, Secy.

LEWISBURG, PA.—The water company, just organized, with a capital stock of \$250,000, will soon begin the construction of the proposed works, according to reports. J. Thompson Baker may be addressed.

PHILADELPHIA, PA.—Bids are asked until Sept. 21 for breeches pipes; 30 x 30-in. curve pipes; 30-in. straight pipes; erecting stand-pipe at the Frankford high-service station, and relocating suction mains at Queen Lane pumping station. Wm. C. Haddock, Dir. Dept. Pub. Wks.

ROCHESTER, PA.—Plans for the proposed works for the President Water Co. are being prepared and construction will soon be begun.

STEELETON, PA.—This city voted Sept. 5 to issue \$175,000 in bonds for the purchase of the works of the Home Water Co.

TYRONE, PA.—J. L. Liden Henry, Engr., Tyrone, writes us that the council has purchased One-Hundred Springs Run from R. S. Seeds for a water supply. The borough engineer has been directed to make surveys, plans, etc.

WARREN, PA.—The Warren Water Co. has submitted a proposition for a new contract for five years. At the end of that time the city is to have the privilege of purchasing.

CRISFIELD, MD.—The following bids were received Aug. 31 for furnishing the materials and for constructing the works: Chandley Bros. & Co., Beaver Falls, Pa., \$18,000; Alcott & Matthias, Mount Holly, N. J., \$19,150; Bolton G. Coon, Kingston, Pa., \$17,171; E. F. Kiltson, Reading, Pa., \$16,457 (accepted); W. Riley Weaver Contracting Co., Baltimore, Md., \$17,991; M. F. McNamara & Co., Washington, D. C., \$17,990; Erbeck Bros., Homestead, Pa., \$19,990. The plant is to be completed Dec. 1.

WOODSTOCK, VA.—P. S. Roler, Cy. Engr., has completed surveys for works. The water supply will be secured from a spring 5 1/2 miles from the town.

ELKINS, W. VA.—D. G. Adelsberger, 722 Pennsylvania Ave., Baltimore, Md., has completed plans for works to cost about \$50,000. The water will be secured from springs four miles from town.

ST. MARYS, W. VA.—Jackson & Knox, Parkersburg, W. Va., are preparing plans and specifications for works. The contract will be let about Oct. 1.

ROCKY MOUNT, N. C.—Contracts amounting to \$39,000, for the works, to be commenced at once, have been awarded as follows: Moore & McCrary, Atlanta, Ga., construction; Tompkins & Co., Charlotte, N. C., pump; Cole Mfg. Co., Newnan, Ga., boilers and stand-pipes; Jackson & Co., St. Louis, Mo., filter; R. D. Wood & Co., Philadelphia, Pa., pipes and hydrants.

WADESBORO, N. C.—This place voted Aug. 31 to issue \$25,000 in bonds for works and an electric plant.

SPARTANBURG, S. C.—The works of the Spartanburg Water-Works Co. will be sold at auction next month.

ELBERTON, GA.—The mayor writes us that this place voted Sept. 2 against issuing bonds for works.

PRATT CITY, ALA.—This place sold \$25,000 of 20-year 8% bonds for the proposed works to Chas. H. Coffin, Chicago, at 102 1/10. In our issue of Aug. 24 we stated that bids for constructing works would be received until Aug. 28. This seems to have been a mistake, however. This information, together with other data about the improvement, was sent to us by E. J. Hudnall, Mayor. It is now evident that the bids were asked for the purchase of the bonds and not for constructing the works. Alber & Byrne, Engrs., Birmingham, Ala.

SARDIS, MISS.—Phillip T. Porter, Columbia Bldg., Louisville, Ky., has been awarded the contract for works at about \$15,000. The plans call for a stand-pipe 12 x 100 ft., with a capacity of over 87,000 gallons. Alber & Byrne, Engrs., Birmingham, Ala.

LANCASTER, KY.—At the election Nov. 7 this place will vote on the question of issuing \$11,000 in bonds for works. Address Mayor Kinnaird.

BATAVIA, O.—Bids are asked until Sept. 16 for the services of an engineer for the proposed works, and until Oct. 7 for the purchase of the bonds; estimated cost, \$18,000. Chas. Belt, Chn. Comrs.; John Hillen, Mayor.

OWENTON, KY.—The Owenton Water-Works Co. has been incorporated with a capital stock of \$5,000 by Wm. Lindsay and W. B. Swope.

HUCYRUS, O.—Bids are asked by the Bucyrus Reservoir Co. until noon, Sept. 18, for constructing the 60,000-gallon reservoir, as advertised in our issue of Aug. 31. (Postponement from Sept. 7.)

FREEPORT, O.—S. C. Keely, of the committee, writes us that bids for constructing the works will not be asked until February. There will be a 3,000-gallon reservoir, iron pipe, etc.; estimated cost, \$4,000. Population, 800.

PONTIAC, MICH.—Sylvester Cole, of the board public works, writes us that nothing has yet been done towards an increased water supply, except to call the city's attention to the needs of extending the works. It is considered doubtful if the council will authorize more than ordinary extension this year.

ROCKLAND, MICH.—Wm. B. Jeffs, Supervisor, writes us that the city has not decided to put in works.

EUREKA, ILL.—Jacob A. Harman, Peoria, Ill., is reported as preparing plans for works to cost \$30,000.

MARSEILLES, ILL.—The question of works is again being considered, according to reports.

TUSCOLA, ILL.—We are informed that the council has granted a franchise for works and a light plant to the Culver Electric Co. It is in the market for water pipe, pumping machinery, etc., as noted under Electric Light and Power, Address J. S. Culver, Secy., Springfield, Ill., or J. H. Culver, Pres., Decatur, Ill.

TREMPEALEAU, WIS.—The council is reported to have voted to build works to cost \$7,000.

CEDAR RAPIDS, IA.—The council proposes to purchase the works of the Cedar Rapids Water Co., whose franchise expires Feb. 19, 1900. John W. Hill, Consult. Engr., Cincinnati, O.

CLINTON, IA.—The Continental Filter Co., 35 Wall St., New York, has been awarded the contract for a pressure filter plant; daily consumption, 2,000,000 gallons.

OSKALOOSA, IA.—Proposals for a new water supply for this city were submitted Sept. 5 by J. P. Miller & Co., the Municipal Construction Co., the Seckner Contracting Co., all of Chicago. The Oskaloosa Water Co. did not submit a proposition. The works will cost about \$254,000. G. L. McKibben, Engr., Van Wert, O.

ROCKWELL, IA.—Bids are asked until Oct. 9 for constructing works, as stated in our advertising columns. J. E. Redding, Clk.

ALVA, OKLA.—An election will be held Oct. 2 to vote on the question of issuing \$16,000 of 30-year 6% bonds for works. It is said that the machinery of the Greensburg, Kan., works has been purchased.

FORT WORTH, TEX.—It is stated that the committee on a better water supply has recommended the construction of a storage reservoir to cost about \$130,000; the installation of meters, etc. If the reservoir is not built it is recommended that a well be sunk to cost \$5,000, a dam at the junction of two streams be built at a cost of \$15,000, that a filter be put in at a cost of \$13,500, etc. Councilman Spencer, Chn. Com.; J. B. Hawley, Cy. Engr.

LUFKIN, TEX.—Bids are wanted at once for 1 1/2 miles of 6-in. water pipe, to be laid 22 ins. under ground, lead, etc. W. M. Glenn, Mayor.

DENVER, COLO.—Plans for municipal works are said to have been completed by a Boston engineer. The city has refused to buy the works of the Denver Union Water Co. for \$9,000,000 and proposes instead to build a new work for about \$7,000,000. Address: Councilmen Golder and Kelley, and J. M. Hunter, Cy. Engr.

DAVENPORT, WASH.—Jas. C. Broad, Spokane, Wash., has been awarded the contract for the mains and for constructing works at \$16,499. W. J. Roberts, Engr., Pullman, Wash.; Adam Knox, Mayor.

SANTA BARBARA, CAL.—The council has been asked to advertise for bids for extending the water tunnel through the Santa Ynez Valley.

ALBUQUERQUE, N. MEX.—It was reported Aug. 5 that contracts would be let at once for about 16 miles of 6, 7 and 8-in. water pipe for carrying water to the mills at Minas Prietas and La Colorada, as well as for the pumping machinery and a reservoir.

MATANZAS, CUBA.—The Matanzas Water-Works Co. is stated, has been incorporated at Dover, Del., by New York parties, to construct works here; capital stock, \$600,000. The company will also furnish electric lights.

HONOLULU, H. I.—Bids are asked until Sept. 20 for furnishing pipe, castings, valves, lead, etc., for the works. Jas. A. King, Minister Interior.

FRASERVILLE, QUE.—The New York Filter Mfg. Co., 26 Cortlandt St., New York, has been awarded the contract for a filter plant, while its Western associate, the O. H. Jewell Filter Co., Chicago, has the contract for the filter plants for Dennison, Ohio, and Dunville, Ont.

BRANTFORD, ONT.—Fred W. Frank, Secy. Bd. Pub. Wks., writes us as follows regarding the proposed extensions to the works: The water commissioners contemplate putting in a 5,000,000 Imperial gallon, high duty, pumping engine. Bidders will be expected to examine location, submit drawings and specifications showing the engine in position, also giving boiler capacity required and specific information as to foundations, etc., with cost for same complete. The conditions under which the pump will be called upon to work will be for domestic pressure of from 80 to 85 lbs. and a fire pressure up to 150 lbs. with 85 lbs. of steam. The engine to be placed on suitable foundations, and connected with the suction and discharge mains within the pump house in the city. The pump may be either vertical or horizontal steam compound expansion engines. (System direct pressure.) Plans, specifications and details of the pump to be submitted to the commissioners up to Oct. 1. T. Harry Jones, Cy. Engr.

GRAND FORKS, B. C.—A report on Aug. 26 stated that bids would be wanted at once for improving the works, at a cost of \$24,000, and for extending the electric plant, at a cost of \$11,000. The bonds have been sold to the Merchants' Bank of Halifax. B. C. Rickert, Engr., Spokane, Wash.

ANGLESEY, WALES.—R. G. Thomas, Arch. and Surv., Chn. Mer. Board, has proposed a plan for furnishing a number of towns in Carnarvonshire with water from Snowdon Mountain. Estimated cost, \$1,500,000.

HOWDEN, ENGLAND.—The district council has invited plans, specifications and estimates for a water supply for the townships of North Cave, Wallingfen and Broomfleet, in the East Riding, county of York. The successful competitor to receive £10 10s. Henry Green, Clk.

## SEWERAGE.

BOSTON, MASS.—Bids are asked by the board of metropolitan sewerage commissioners until Oct. 7 for building sections 65, 66, 68 and 69 of the High-Level sewer in Hyde Park and West Roxbury, as described in our advertising columns.

LOWELL, MASS.—The council has passed the ordinance authorizing the loan of \$30,000 for completing the sewers.

TAUNTON, MASS.—The aldermen have appropriated \$30,000 for new sewers.

NEW BRITAIN, CONN.—City Clerk Cadwell has been directed to have surveys made at once for sewerage filtration in Beckley Quarters, and also near Sunset Heights, Plainville. Sam'l M. Gray, Consult. Engr., Providence, R. I.

STRATFORD, CONN.—It is proposed to build a sewer to abate the nuisances in the vicinity of the property belonging to the Hydraulic company.

WEST HARTFORD, CONN.—The sewer commissioners have been authorized to make surveys for a system. C. Edward Beach, Engr.

ALBANY, N. Y.—Bids are asked until Sept. 18 for a pipe sewer and 3,700 lin. ft. of brick paving in Horton St. T. J. Lanahan, Clk. Bd. of Contract.

BUFFALO, N. Y.—Bids are asked by the board of public works until Sept. 21 for sewerage and filling in the Hamburg Canal. This is the first step towards the abatement of the nuisance.

LANSINGBURG, N. Y.—H. S. Eveline, 1st St., Waterford, N. Y., has been awarded the contract at \$15,500 for a sewer.

MOUNT VERNON, N. Y.—Harry P. McTague, Contr. Pub. Wks., informs us that no bids were received Sept. 5 for water-proofing the sewage receiving basin, advertised in Engineering News Aug. 31. The city officials are very desirous of having this work done at once, and would like to have the names and addresses of such firms capable of carrying on the work.

NEW YORK, N. Y.—Bids are asked by the department of sewers, 21 Park Row, until Sept. 20 for constructing sewers in seven streets in Bronx and Richmond.

SOUTH NYACK, N. Y.—Bids are asked until Sept. 20 for constructing a trunk sewer and a main outfall sewer, etc., as stated in our advertising columns. G. N. Houston, Engr.; Jos. T. Kelly, Village Clk.

WATERTOWN, N. Y.—The board of public works has directed the city engineer to dig test pits for the proposed trunk sewer. Address Commissioners Clare and Having.

NEWARK, N. J.—Bids are asked until 3.30 p. m. Sept. 14 for constructing about 6,500 ft. of 92 to 26 x 30-in. brick sewers, and about 4,500 ft. of 24 to 10-in. pipe sewers, etc. J. Crowell Mundy, Gen. Supt. of Works.

TRENTON, N. J.—Bids are asked until Sept. 19 for constructing a sewer in Pashley Ave. C. E. Murray, Clk. Union, N. J.—The Union township committee has voted to build a sewer to carry the sewage of the township to the Elizabeth system.

ASPENWALL, PA.—Bids are asked until noon Sept. 16 for pipe sewers in Center Ave. S. A. Taylor, Engr.

BEN AVON, PA.—Bids are asked until Sept. 25 for constructing pipe sewers in four streets. Trimble & Miller, Engrs, 450 Fourth Ave., Pittsburgh, Pa.

PHILADELPHIA, PA.—Bids are asked by the department of public works until Sept. 19 for branch sewers, inlets, manholes, laterals, etc., for the entire city; Race St. Pier, dredging, bulkhead and substructure; Mingo Creek Pumping Station, lowering forchay and extending suction pipes; Pennsylvania Ave. subway and tunnel; Contract No. 56, paving, repaving and curb setting, etc., on Hamilton and adjacent streets.

SCRANTON, PA.—City Engineer Phillips has submitted estimates for new sewers, to cost about \$180,000.

WAYCROSS, GA.—The city is making renewed efforts to construct the system, to cost \$10,000.

BIRMINGHAM, ALA.—We are informed that Julian Kendrick, Cy. Engr., will soon ask for bids for extending the 2d Ave. storm sewer, estimated to cost \$50,000.

JACKSON, MISS.—Ford, de la Hunt & Yeater, Cedar Rapids, Ia., have been awarded the contract at \$89,000 for constructing the system, to consist of 24 miles of pipe. The following are the other bidders: H. & J. B. Nix, Chattanooga, Tenn.; C. W. Burkhalter & Co., Birmingham, Ala.; F. J. Shea, Mobile, Ala.; Wolf, Martin & Curtis, Alton, Ill.; Greenville Construction Co., Greenville, O.; Myers Construction Co., St. Louis; D. J. Coyle, Washington, D. C.

VICKSBURG, MISS.—Frank M. Andrews, Secy. Bd. of Trade, writes us that no definite steps have yet been taken with reference to the construction of a system.

CHATTANOOGA, TENN.—The following bids were received Sept. 5 for extending the Washington St. sewer: J. B. Neely, \$8,863; Wm. Dowling, \$10,005; Noll & Thompson, \$9,988.

KNOXVILLE, TENN.—It is proposed to extend the Federal sewer. W. A. Gay, Cy. Engr.

BUCYRUS, O.—New bids have been asked by the city clerk for constructing the Gallion Ave. sewer.

COLUMBUS, O.—The following submitted bids Sept. 1 for sewers for the Columbus Barracks: S. S. Knight, \$4,780; Jones & Crow, \$5,801; C. L. Cameron, \$6,038.

LIMA, O.—Bids are asked until Sept. 20 for constructing a sewer in Cole St. C. E. Lynch, Cy. Clk.

LORAIN, O.—Bids are asked until Sept. 27 for constructing three main sewers, to cost about \$45,000, as stated in our advertising columns. G. A. Resek, Cy. Clk.; E. C. Looftbourrow, Cy. Engr.

TOLEDO, O.—The following are the lowest bids received Sept. 1 for certain sewers: Maumee Ave., G. H. Bodette, \$5,444; Forsyth St., O'Sullivan & Sheehan, \$3,356; Wintrop St., J. B. O'Neill, \$1,271; Oakwood Ave., H. S. Jennison, \$2,117; Griffin St., H. G. Jennison, \$1,522.

CRAWFORDSVILLE, IND.—The council has voted to build a sewer 2,300 ft. long, at a cost of \$6,000.

DELRAY, MICH.—B. L. Barton, Port Huron, Mich., has been awarded the contract at \$19,000 for the second section of the system.

DETROIT, MICH.—Bids are asked until 10 a. m., Sept. 15, for furnishing the material and constructing the Dubois street outlet and sewer from dock line to Larned St.; length of 3-way, 1,351 ft.; bellmouth, 18 ft.; 8-ft. cylinder, 557 ft.; total length, 1,900 ft.; 8 manholes; check, \$3,000. D. W. H. Moreland, Pres. Bd.—Engineer Ashwell, Highland, has completed plans for 2,825 ft. of sewers to cost \$5,283.

FORT MEADE, S. DAK.—Bids are asked until Sept. 18 for constructing a system at this fort. Geo. E. Pond, Ch. Q. M., U. S. A. St. Paul, Minn.

CHICAGO, ILL.—Local papers state that new bids will be asked for building the southern arm of the intercepting sewer. Patrick H. Nash submitted the lowest bids for both sections Aug. 7, at \$531,556 for section one, and at \$332,097 for section two. It is probable that if new bids are asked the work will be made into three sections.

CHICAGO, ILL.—Bids are asked until Sept. 20 for pipe sewers in a number of streets. L. E. McGann, Pres. Bd.

KAUKAUNA, WIS.—M. C. Connors, Kaukauna, has been awarded the contract for 2,610 ft. of sewer at \$6,300. J. Mathies, Milwaukee, bid \$6,311, and J. H. Green & Sons, Appleton, Wis., \$7,500.

**BILLINGS, MONT.**—Bids are asked until Sept. 19 for constructing about 13,700 ft. of 15, 12 and 8-in. pipe sewers, 20 manholes, 13 tanks, etc. J. B. Herford, Cy. Clk.

**CORSICANA, TEX.**—The council has been petitioned to build sewers in the western portion of the town.

**BEAVERDE, CAL.**—Bids are asked until Sept. 25 for the purchase of \$10,000 of 5% 40-year bonds. H. F. Buhmeister, Clk.

**LACHINE, QUE.**—Bastien, Valiquette & Parker, Montreal, Que., are reported to have been awarded the contract at \$153,000 for the proposed system.

**GARBAGE DISPOSAL—STREET CLEANING**

**ALBANY, N. Y.**—The council wants to ask for new bids for a plant. Last week we noted a report on a plant submitted by Dr. F. C. Curtis, Chm. Com. Bd. of Health. The matter has been postponed indefinitely.

**UTICA, N. Y.**—Henry Stappenbeck, of Utica, has been awarded the contract for destroying the garbage for 10 years, at \$5,000 a year, it having been signed by Acting Mayor Geo. Beatty.

**LEXINGTON, KY.**—The question of a better method of garbage disposal is being considered, according to reports.

**LOUISVILLE, KY.**—Bids are asked until noon Sept. 20 for a crematory, the bids received Aug. 29 having been rejected as too high, as noted in our issue of last week. The bids were as follows: Thackery Incinerating & Fertilizing Co., Cincinnati, \$33,423; Dixon Garbage Crematory Co., Toledo, O., \$39,500 to \$34,500; American Sanitary Engineering Co., Detroit, Mich., \$46,073. Chas. F. Granger, Chm. Com., Bd. Pub. Wks.

**CANTON, O.**—The matter of putting in a crematory is reported as being considered.

**YOUNGSTOWN, O.**—The commissioners have been asked to immediately adopt a plan for the better collecting and disposing of the garbage.

**MENOMINEE, MICH.**—Reports state that the city may erect a garbage disposal plant.

**MILWAUKEE, WIS.**—It is proposed to build a garbage dock, as well as the disposal plant.

**SACRAMENTO, CAL.**—The board of health has asked for an appropriation of \$20,000 for a disposal plant.

**STREETS AND ROADS.**

**RUTLAND, VT.**—H. B. Whittier, Clk., writes us that the proposed macadamizing of West St. will not be done this year, as previously stated.

**BOSTON, MASS.**—Bids are asked by the Massachusetts highway commissioners, 4 Mount Vernon St., until Sept. 14 for constructing about 2,200 ft. of highway in Erving, about 3,400 ft. in Blackstone, and about 1,800 ft. in Chester. The commissioners received on Sept. 8 the following bids: For 1,100 ft. of highway in Westminster, James Welch & Co., Salem, \$4,510; A. J. Wellington, \$4,251 (accepted); for a portion of highway in West Brookfield, J. S. Lane & Co., Springfield, submitted the only bid, at \$4,906 (accepted).

**BOSTON, MASS.**—Bids are asked until Sept. 15 for macadamizing Waldeck and Newburg Sts. Benj. W. Wells, Supt. Sts.

**GLOUCESTER, MASS.**—Bids are asked by the board of park commissioners until Sept. 15 for constructing a road 2,500 ft. long and 30 ft. wide through Stage Fort Park.

**NEWPORT, R. I.**—The council on Sept. 5 appropriated \$8,000 for the improvement of streets.

**FARMINGTON, CONN.**—Bids are asked by the board of selectmen until Sept. 14 for macadamizing a section of the road, from the bridge over the Farmington River along Main St. turnpike.

**POMFRET, CONN.**—Bids are asked by the board of selectmen until Sept. 15 for macadamizing a section of road, about 2,629 ft. long, in this town.

**SOUTH NORWALK, CONN.**—Bids are asked by the street commissioners until Sept. 19 for laying about 1,800 sq. yds. of pavement in North Water St.

**SUFFIELD, CONN.**—Bids are asked by the board of selectmen until Sept. 16 for constructing about 4,500 ft. of the Crooked Lane turnpike, and for macadamizing two sections of road in this town.

**WATERBURY, CONN.**—Commissioners Guilfoile and Goss and City Engineer Cairns compose the committee appointed by Mayor Barlow to consider the advisability of extending Jewelry St. instead of Liberty St., as originally proposed. There will be a meeting of the board of aldermen on Sept. 15 to decide the question of paving North Main St.

**WINDSOR LOCKS, CONN.**—Bids are asked by the board of selectmen until Sept. 15 for macadamizing a section of North Main St. and a section of South Main St.

**WOODBURGH, CONN.**—Bids are asked until Sept. 14 for the improvement of roads in this town and in the town of North Branford. A. B. Hill, Engr.

**ALBANY, N. Y.**—Bids are asked until Sept. 18 for paving Mortou St., from Clifton St. to Delaware Ave., with brick. Thomas J. Lanahan, Clk. Bd. Contract.

**BROOKLYN, N. Y.**—The board of public improvements on Sept. 6 adopted resolutions asking Comptroller Coler to authorize an appropriation of \$25,000,000 for street improvements.

**BUFFALO, N. Y.**—The board of public works on Sept. 7 received the following bids for the paving of Forest Ave., between West and Delaware Aves.: Barber Asphalt Paving Co., asphalt, \$37,315; German Rock Asphalt Co., asphalt, \$38,962; American Contracting Co., asphalt, \$37,500; Henry P. Burgard, asphalt, \$36,395; John Mumm, brick, \$29,500; Louis H. Gipp, brick, \$31,250; Christopher Smith, brick, \$35,000; Pliny B. McNaughton, brick, \$34,970; Henry P. Burgard, brick, \$35,000.

**NEW YORK, N. Y.**—Bids are asked by the department of highways until Sept. 19 for paving 84th St., from Madison to Park Aves., with asphalt. Bids are asked until Sept. 26 for paving four streets with Belgian block and reflagging sidewalks on two streets in the Borough of Brooklyn. James P. Keating, Comr. Highways.

**OLEAN, N. Y.**—Bids are asked by the commissioners of public works until Oct. 2 for grading about 2,000 cu. yds. and setting about 3,750 lin. ft. of curbing on W. Sullivan St., as stated in our advertising columns.

**GLOUCESTER CITY, N. J.**—An election will be held on Oct. 4 to vote on the question of issuing \$100,000 in bonds for street improvements.

**HARRISON, N. J.**—Bids are asked until Sept. 19 for paving South Fourth St. with trap-rock block. B. P. Walsh, Town Clk.

**UNION HILL, N. J.**—The council on Sept. 6 received the following bids for asphaltizing Third St. and Hudson Ave.: New Jersey Mexican Asphalt Co., \$19,219; Atlantic Alcatraz Asphalt Co., \$20,223; Barber Asphalt Paving Co., \$19,297; Seltian Asphalt Co., \$17,127.

**READING, PA.**—The board of public works will recommend to the council the acceptance of the Pennsylvania Asphalt Co.'s bid of \$129,207 for street paving.

**BRADDOCK, PA.**—The council on Sept. 5 awarded to Rossert & McCreedy the contracts for paving John and Second Sts., Corey Ave., and Quince and July Alleys, to cost about \$10,000.

**SEWICKLEY, PA.**—Bids are asked until Sept. 20 for about 14,000 sq. yds. of macadam paving in Thorn St. H. T. Hirst, Borough Engr.

**BALTIMORE, MD.**—The board of public works at its meeting on Aug. 29 decided that Duval St. should be paved with Volusia shell. The city engineer is authorized by the board to prepare estimates for the pavement of several streets with brick.

**WASHINGTON, D. C.**—Bids are asked by the district commissioners until Sept. 23 for laying cement sidewalks, as stated in our advertising columns.

**MOBILE, ALA.**—The county commissioners received on Aug. 29 the following bids for constructing the new Conception St. road: Zeman & Jackson, \$8,648 (accepted); Tingle & Mitternacht, \$9,688; J. E. Buck, \$9,700; McCala & Gay, \$11,303; Hayes & Pulliam, \$17,375; Kearney & Fischer, \$29,829.

**ATHENS, GA.**—Local papers state that the work on Clarke county roads will be begun next spring.

**LAKE CITY, FLA.**—An election will be held on Sept. 14 to vote on the question of issuing \$7,500 in bonds for street improvement.

**DAYTON, O.**—Bids are asked until Sept. 18 for paving five alleys. Robt. H. Ferguson, Cy. Comptroller.

**GALLIPOLIS, O.**—Bids are asked until Sept. 18 for the purchase of \$1,000 in bonds for street improvements. T. E. Bradbury, Cy. Clk.

**GREEN SPRING, O.**—The contract for macadamizing two sections of the streets in this town was awarded to Harry J. Hall on Aug. 31, by the council, at \$8,000.

**GREENVILLE, O.**—Bids are asked until Sept. 29 for improving Broadway, Fifth, Fourth, Third and Main Sts., as stated in our advertising columns. Eliot M. Miller, Cy. Clk.

**INDIANAPOLIS, IND.**—Bids are asked by the board of public works until Sept. 20 for paving Hudson St.

**ROCKVILLE, IND.**—Bids are asked until Oct. 3 for the improvement of five highways in Wabash. S. S. Pike, County Andr.

**BAY CITY, MICH.**—The council on Sept. 5 awarded to Hugh Campbell the contract for paving South Union St., at \$7,068.

**GRAND RAPIDS, MICH.**—The council has passed resolutions providing for the improvement of Crescent Ave. and Bostwick St. by grading and graveling.

**CHICAGO, ILL.**—The question of the advisability of extending Ogden Ave. from Union to Lincoln Parks, at the cost of \$1,800,000, will be discussed at the meeting of the council on Sept. 14.—At a meeting of the council on Aug. 31 it was voted to lay 20 miles of new sidewalk.

**MILWAUKEE, WIS.**—Bids are asked until Sept. 14 for paving Grand Ave. with brick, and until Sept. 15 for paving three streets with asphalt. G. W. Porth, Deputy Comptroller.

**CROOKSTON, MINN.**—Bids are asked until Sept. 19 for constructing about 28,434 sq. yds. of macadam and about 9,100 ft. of curbing. O. L. Hamery, Cy. Engr.

**ST. PAUL, MINN.**—The board of public works on Sept. 5 received the following bids for paving: Summit Ave., hick, John Lundquist, \$9,120; Fielding & Shepley, \$4,780; Summit Ave., asphalt, Hennessy & Cox, 7,063; Warren-Scharf Co., \$7,240; Farrington Ave., asphalt, Hennessy & Cox, \$10,332; Warren-Scharf Co., \$10,612; Sherburne Ave., asphalt, Hennessy & Cox, \$4,041; Warren-Scharf Co., \$4,147.

**ST. PAUL, MINN.**—Bids are asked until Sept. 18 for paving Sherburne, Summit and Nelson Aves. C. H. Bronson, Ck. Bd. Pub. Wks.

**KANSAS CITY, MO.**—The judges of the adjacent counties are considering the question of macadamizing the roads of their respective county to connect with those of this county.

**MANUFACTURING PLANTS.**

**EASLEY, S. C.**—It is reported that the Piedmont Mfg. Co., Greenville, S. C. will probably let contracts Oct. 15 for erecting a 10,000-spindle mill at this place.

**LONDON, ENGLAND.**—Bids are asked by the Tredegar Iron & Coal Co., Ltd., 7 Fenchurch Ave., London, E. C., until Sept. 27, for erecting the following plant: One pair of compound engines; one approved type of fan; one pair of compound winding engines with Corliss valves and gear; two sets of three-throw plunger pumps; one dynamo and engine for driving the above plant; one complete lighting plant for furnaces, steel works and shops; two 30 x 8-ft. Lancashire boilers; eight 30 x 8½-ft. Lancashire boilers, and six 30 x 7-ft. new or second-hand Lancashire boilers.

**MISCELLANEOUS CONTRACTS.**

**RETAINING WALL.**—Cincinnati, O.—Bids are asked until Oct. 3 for a retaining wall. G. H. Spellmire, Clk.

**TUNNEL.**—San Francisco, Cal.—Bids are asked for constructing a tunnel 100 ft. to 500 ft. long. Address Room 30, Montgomery Block.

**WHARF.**—Cacana, Que.—Bids are asked until Sept. 20 for building an extension to a wharf. E. F. E. Roy, Secy. Bd. Pub. Wks., Ottawa, Ont.

**REVIETMENT.**—Judith, Mont.—Bids are asked until Sept. 15 for constructing a revetment at this place. Capt. J. C. Sanford, U. S. Engr., Sioux City, Ia.

**DREDGING.**—Newark, N. J.—Bids are asked until Sept. 14 for dredging about 5,500 cu. yds. from the Peddie St. ditch. J. Crowell Mundy, General Supt. Wks.

**IMPROVEMENT BONDS.**—Greenville, O.—Bids are asked until Sept. 29 for the purchase of bonds, as stated in our advertising columns. Eliot M. Miller, Cy. Clk.

**DRY-DOCK.**—Levis, Que.—Bids are asked until Sept. 20 for constructing the extension of the Levis dry-dock. E. F. E. Roy, Secy. Dept. Pub. Wks., Ottawa, Ont.

**JETTY WORK.**—Port Clinton, O.—Bids are asked until Oct. 2 for reinforcing the jetties at the entrance to the harbor with stone. Col. Jared A. Smith, U. S. Engr.

**DREDGING.**—Cleveland, O.—Bids are asked until Oct. 2 for dredging at Monroe Harbor, Mich., and at Black River Harbor, Lorain, O. Col. Jared A. Smith, U. S. Engr.

**DOCK.**—Seattle, Wash.—The Pacific Clipper Line is reported to have purchased land on which it is proposed to build a dock 168 x 300 ft. Capt. E. E. Caine, Mgr.

**DAM.**—Grand Island, Neb.—Bids are asked until Sept. 26 for constructing a dam across a branch of the middle channel of the Platte River. C. H. Menck, County Clk.

**DRY-DOCK.**—Philadelphia, Pa.—Reports state that the navy department has rejected the bids on the League Island dry-dock and will advertise for bids. The bids for the dock and its approaches were over the appropriation limit of \$25,000.

**WHARF.**—Tompkinsville (S. I.), N. Y.—Bids are asked until Oct. 2 for constructing the last face of North Wharf, as stated in our advertising columns. Col. D. P. Heap.

**DIKE WORK.**—Seattle, Wash.—Bids are asked until Sept. 30 for constructing and repairing pile brush and stone dikes in Swinomish Slough. Capt. Harry Taylor, U. S. Engr.

**FILLING IN, ETC.**—Buffalo, N. Y.—Bids are asked by the department of public works until Sept. 21 for filling in and sewerage the Hamburg Canal, at a cost of about \$750,000.

**REMOVAL OF WRECK.**—Lynn Harbor, Mass.—Bids are asked until Oct. 6 for removing the wreck of the schooner "Elen Maria," lying off the entrance of main ship channel in this harbor. Col. Chas. R. Suter, U. S. Engr., Boston.

**SODA WATER FOUNTAINS.**—London, England.—Circulars, estimates, etc., for a dozen or more soda water fountains, averaging 10 ft. in length, are wanted at once by G. H. Frost, 1 Arandel St., Strand, London.

**LEVEE.**—Brownsville, Tenn.—It is stated that a levee will be constructed through the Forked Deer bottom, from Jones Station, on the road that leads to Bells, in Crockett county. The South Hatchie Levee Co. has received a contract for a portion of the work.

**DREDGING.**—Oconomowoc, Wis.—All bids received by the directors of the Oconomowoc Waterways Co., for dredging the channel between Fowler and Oconomowoc lakes, have been rejected. It is proposed to let the contract and pay for the work by the day.

**TUNNEL.**—Pittsburg, Pa.—It is stated that work will soon be begun on the proposed coal tunnel, running from Pittsburg to Wilson Station by the Pittsburg Coal Co. The tunnel, which is owned by the Keeling Coal Co., will be 9½ miles in length.

**LEVEE WORK.**—New Orleans, La.—Bids are asked until Sept. 25 for 683,520 yds. of levee work in the Atchafalaya district, 11 contracts, and for work in the Pontchartrain and Barataria districts, about 1,400,000 cu. yds. Col. G. McC. Derby, U. S. Engr., New Orleans.

**DREDGING.**—New York, N. Y.—Bids are asked by the department of docks and ferries, Pier A, North River, until Sept. 18, for about 200,000 cu. yds. of mud dredging in the North River, between the Battery and West 34th St., and for furnishing about 2,000 tons of anthracite coal.

**PARK ENTRANCES, ETC.**—New York, N. Y.—Bids are asked by the department of parks, Arsenal Bldg., until Sept. 21, for constructing four entrances to the New York Zoological Park in Bronx Park, and for constructing four toilet buildings, and for furnishing 200 park settees at the Bronx Park, Borough of Bronx.

**GATE CHAMBER.**—Boston, Mass.—We are informed that the following bids were received by the Boston Park Commission on Sept. 6 for constructing a gate chamber and sea wall at Charlesgate: (1) for gate chamber with granite piers and division walls; (2) for concrete piers and division walls:

	(1)	(2)
William L. Miller, Boston, Mass.	\$47,974	\$45,974
R. D. Shanahan, Boston, Mass.	55,998	53,998
George M. Bacon, Boston, Mass.	55,685	53,685
William J. Lawler, Charlestown, Mass.	57,194	55,194
D. F. O'Connell, Boston, Mass.	59,400	57,400
W. H. Keyes & Co., Boston, Mass.	74,941	74,941

**QUAYS, EMBANKMENTS, ETC.**—Alexandria, Egypt.—Bids are asked by this municipality until Dec. 31 for constructing along the east harbor of the Bay of Anfehieh quays, embankments, towpaths, earthwork and interceptors, as well as finishing the outer wall of Kaid Bey. Most of the works are to be maintained for five years after being completed by the builder. Bidders must deposit 25,000 Egyptian pounds. Address either the U. S. Consul-General, Cairo, Egypt, or the Commercial Department, Board of Trade, 7 Whitehall Gardens, S. W., London, England.

**CONTRACT PRICES.**

**WATER-WORKS.**—Vernon, B. C.—F. H. Latimer, Cy. Engr., informs us that the following contracts were let Aug. 31, 1899, for furnishing the materials and for constructing water-works to be completed Dec. 31: Dam and reservoir, T. E. Crowell, Vernon, \$2,623; laying pipes, setting valves, hydrants, McQuarrie & Co., New Westminster, B. C., \$9,819 (all material f. o. b. Vernon, duty free); cast pipe, 4, 6 and 8-in., 116½ tons, Gartshore, Thompson Co., Hamilton, Ont., \$52 per 2,000 lbs.; specials, 11,575 lbs., ¾ cts.; 160 service boxes, \$1.50; 62 valve boxes, \$4.50; steel pipe (converse lock joint), 700 ft. 8-in., 3,442 6-in., 12,600 ft. 4-in., total, \$9,100; Boyd, Burns & Co., Vancouver, B. C., \$5,683; 10,814 ft. 2-in. water pipe, 15.87 cts.; 700 2-in. unions, 38¼ cts.; 6 2 x 2-in., 33 cts.; 155 2 x ¾-in., 37¼ cts.; 25 plugs, 2-in., 57 cts.; 250 plugs, ¾-in., 168 cts.; 2,650; 33 4-in. gates, \$9.20; 2 6-in. gates, \$14.30; 2 8-in. gates, \$25.45; 2 4-in. relief valves, \$31.00; 5 2-in. air valves, \$8; \$192; 400 ½-in. corporation cocks, 88.4 and 93 cts.; 8 1-in. corporation cocks, \$1.35; 170 ¾-in. sidewalk cocks, 75 cts.; 8 1-in. sidewalk cocks, \$1.13; \$514; 17 4-in. post hydrants, 2 nozzles, 4½-ft., Ludlow, \$36.85 = \$626. Total, \$3,682. Grand total (approximate), \$31,400.

**DREDGING, ETC.**—Union River, Me.—The U. S. Engineers, Portland, received the following bids Sept. 7, 1899, for dredging and excavating ledge in the Union River; Geo. A. Rogers, Plattsburg, N. Y., and S. J. Donovan, Winthrop, Mass., only bid on excavating ledge at \$7.80 and \$10.25 a cu. yd.; (1) being for dredging wall waste, etc., 137,000 cu. yds.; (2) dredging gravel, hard pan and boulders, 30,000 cu. yds.; (3) dredging mouth of river, 45,000 cu. yds.; (4) excavating ledge, 8,000 cu. yds.:

	1	2	3	4
A. B. Martin, Boston.	\$0.36	\$0.81	\$0.37	.....
International Co. ....	.35	.98	.25	\$7.65
A. R. Wright, Portland.	.25	.75	.18	6.40
C. W. Johnston, Lewes.	.27	.47	.16	7.90

\*International Wrecking Salvage & Sub-Marine Co., Atlantic City, N. J.

**REMOVING SNOW, ETC.**—New York, N. Y.—The following bids were received by the street cleaning department Sept. 8, 1899, for removing snow and ice from the paved streets, etc., from the period beginning with the date of execution of contract and ending April 15: all bidders of New York: Uvalde Asphalt Paving Co., 1 Broadway, 35 cts.; Bart Dunn, 444 E. 68th St., 30 cts.; The United Co., 17 Park Row, 36¼ cts.; G. W. Furnan, 39 cts.; Eugene Lentilhon, 11 Broadway, 42¼ cts.; E. J. Schafer, 44 cts.

**MACADAMIZING.**—Plainfield, N. J.—Andrew J. Gavett, St. Clair, writes us that the following bids were received Sept. 5, 1899, for macadamizing, the depth of the work to be 6 ins. at the center, and 4 ins. at the sides; E. T. Barrows, Chm. Com.:

	Macadam	
Bidder.	10 ft. wide.	40 ft. wide.
Phillips & Co., Kenneth Square, Pa.	\$0.69	\$1.14½
C. M. Meeke, Plainfield.	.68	1.18
P. Christmas, Plainfield.	.73	1.44

RIP-RAP WORK.—Larchmont, N.Y.—The following bids were received by the U. S. Engineers, Sept. 11, 1899, for rip-rap work: J. B. Conklin, 5189 Broadway, New York, 51 cts.; Hudson Construction Co., 57 cts.; S. F. Itandolph, 63 cts.; J. H. Bouker, 63 cts.; Daniel Touney, 69 cts.; Jno. Heattie, \$1.10.

DITCH.—Wabash, Ind.—The contract for the drainage ditch, 20 miles long, in Kosciusko county, known as the Yellow Creek ditch, has been awarded to John H. Hughes, Nappanee, at about 5 cts. a cu. yd. The work calls for about 500,000 yds. of earth excavation, and the total cost will be about \$25,000.

STREET SIGNS.—Minneapolis, Minn.—The following bids were received Sept. 8, 1899, for furnishing 5,000 street signs: Petersen & Naurer, Minneapolis, signs, 4 x 18-in., painted on No. 20 con. steel, 14 to 16 cts. each; skylight glass, 21 cts.; 3 1/2 x 12-in., 16 cts. Pittsburgh Plate Glass Co., Pittsburgh, Pa., 5,000 colored glass, etched, 3 x 15-in., 20 cts.; 2,500, 2 1/2 cts.; less than 2,500, 25 cts. Minneapolis Stamp & Stencil Co., Minneapolis, woven wire and marble, 5 x 24-in., 26 cts. each; 5 x 18-in., 22 cts.; blue enamel, 4 x 18-in., 32 cts. Aluminum Metal Stamping Co., 4 x 16-in., 23 cts.; 4 x 12-in., 24 1/2 cts. Geo. J. Sheffer Sign Co., Minneapolis, blue enamel, 4 x 16 to 24-in., 38 cts.; F. M. Burdick & Co., Chicago, Ill., blue enamel, 3 1/2 x 14, 18 and 21-in. letter, 2 1/2 ins. high, 26 cts.; 4 x 14, 18 and 21-in., 3 ins. high, 28 cts.; Enamel Iron Co., Beaver Falls, Pa., blue enamel, 6 x 26-in. with border, 33 cts. each; without border, 38 cts.; 4 x 28-in., and under, with border, 28 cts.; and under, without border, 26 1/2 cts.

BLOW-OFF SEWERS, WATER PIPE, ETC.—New York, N. Y.—The following bids were received by the aqueduct commissioners Sept. 6, for constructing overflow and blow-off sewers, water pipe, etc., in connection with the Jerome Park reservoir:

cts.: (20) \$1.25; (21) \$1; (22) 40 cts.; (24) \$1,000. J. A. Swingle, (9) \$7.60; (10) \$5; (11) \$6; (12) 50 cts.; (13) 60 cts.; (14) \$20; (15) \$35; (16) \$10; (17) \$3; (18) 50 cts.; (19) 20 cts.; (20) 85 cts.; (21) \$1; (22) 50 cts.; (24) \$300. The bridge will consist of one span of 119 ft. and two of 21 ft. each, fixed, and one draw span of 230 ft.; a roadway 32 ft. wide and two sidewalks 6 ft. wide each. Herman Lamb, Consult. Engr., Pittsburg, Pa.

INDUSTRIAL NOTES.

CENTRAL STATES WATER-WORKS ASSOCIATION.

The following exhibits were made by the firms named at the second annual convention of the Central States Water-Works Association, held at the Grand Hotel, Cincinnati, O., Sept. 5, 6 and 7:

THE THOMPSON METER CO., 79 to 83 Washington St., Brooklyn, N. Y., exhibited the Lambert water meter in various sizes.

THE NEPTUNE METER CO., 253 Broadway, New York, had on view at its booth Trident water meters in sizes from five-eighths to 2 ins.

THE SEIBEN MFG. & SUPPLY CO., Kansas City, Mo., was represented by Mr. Henry Sieben, and showed numerous specimens of its ball-bearing stop and curb cocks.

THE PAYNE TAPPING MACHINE CO., Fostoria, O., exhibited its tapping machine, corporation, stop and curb cocks. Mr. Walter S. Payne represented the company.

THE HERSEY MFG. CO., South Boston, Mass., showed a full line of Hersey, Disc and Torrent water meters, the working of the latter type being fully shown by a sectional working model.

roofings, etc., and has installed all the steam pipe and boiler coverings for the Cincinnati water-works for the past ten years. The company also exhibited its special single air chamber ammonia and brine pipe coverings. It was represented by Mr. Geo. D. Crabbs, Pres. and Gen. Mgr., and Mr. R. E. Kramig.

THE H. MUELLER MFG. CO., Decatur, Ill., was represented by Mr. Fred B. Mueller and Mr. F. L. Hark Jr., and exhibited a full line of the Mueller water and gas tapping machines, water-works and plumbing supplies, the Gow improved meter tests, which is made to test all meters from 1/2 to 2 ins. under any size stream from 1-64 to 2 ins. in diameter, corporation cocks and stop and waste cocks, both straight and roadway, and roadway inverted key curb cocks, which are coming into use among water-works officials. The company presented all delegates and visitors to the convention with small gold pins representing the water-pressure regulator which it makes.

THE THOMPSON-NUBRING CHEMICAL CO., Cincinnati, O., exhibited the Thompson-Nubring water chemicalizer for fire extinguishing, disinfecting and fertilizing. The apparatus consists of six vertical cylinders, 10 ins. in diameter and 20 ins. in height, connected in a series and having a rubber hose attached to either end, one of which is coupled to the fire hydrant and the other terminating in a nozzle. The whole apparatus is mounted upon a four-wheeled hand truck and is intended for "chemicizing" the stream of water as it comes from the fire plug or hydrant. The company also exhibited a small chemicalizer of two cylinders, intended for use in dwellings, public buildings, etc.

THE LORAIN STEEL CO., Johnstown, Pa., is reported to have a contract for 50 miles of steel rails for the Honolulu Traction Co., Honolulu, H. I.

BIDS RECEIVED AT NEW YORK, N. Y., SEPT. 6, 1899, FOR BLOW-OFF SEWERS, WATER PIPE, ETC.

Table with multiple columns listing quantities and prices for various construction materials like Earth excavation, Brick masonry, etc., with a total sum at the bottom.

DITCH.—Algona, Ia.—M. P. Weaver, County Audr., writes us that the following bids were received Sept. 4, 1899, for constructing a ditch: S. F. Moeller, Corwith, Ia., first 36,000 cu. yds., 23 cts. a cu. yd.; second 36,000 yds., 21 cts.; Gremes Dredging Co., 178 South Water St., Chicago, 11.7 cts. for all the work; Garner Construction Co., Garner, Ia., 11 cts. for all.

RUBBLE STONE.—Sandy Bay, Mass.—Col. C. R. Suter, U. S. Engr., Boston, received the following bids Sept. 5, 1899, for rubble stone for the breakwater at Sandy Bay: Rockport Granite Co., Rockport, Mass., 43 cts. a ton of 2,000 lbs.; Pigeon Hill Granite Co., Rockport, 43 cts.; Cape Ann Granite Co., Boston, 63 cts.; Edwin Canney, Pigeon Cove, 71 cts.; Sam'l F. Randolph, New York, 67.5 cts.

BREAKWATER.—Oswego, N. Y.—The following bids were received Sept. 11, 1899, by Capt. Graham D. Fitch, U. S. Engr., for constructing a breakwater at Cape Vincent:

Table listing items and prices for breakwater construction materials like Hemlock, White oak, Screw bolts, etc., with a total sum.

BRIDGE.—Marietta, O.—The following bids were received Aug. 28, 1899, for furnishing the materials and for constructing the Putnam St. bridge over the Muskingum River: (1) being for superstructure, plan on file; (2) to 7, inclusive, hand-rail; masonry; (3) 1st class; (4) 2d class; (5) concrete, piling; (6) foundation; (7) fender, timber; (8) in foundation; (9) in fender pier; (10) iron in foundation; (11) rip-rap; (12) embankment; excavation (13) dry; (14) wet; (15) brick paving; (16) stone curbing; (17) old bridge; (18) old stone; J. G. Wagner Co., (1) \$84,000, does not include removal of old bridge; (2) Penn Bridge Co., (1) \$70,000, price to advance after Sept. 1. New Columbus Bridge Co., (1) \$69,900, price to advance after Aug. 1; (2) \$150, Pittsburgh Bridge Co., (1) \$75,000; (2) to 6, inclusive) \$85,817, \$89,350, \$88,917, \$79,391, \$82,945, \$81,111; (15) \$23; (17) \$1. Canton Bridge Co., (1) \$77,750, add for advance in price of material. Wrought Iron Bridge Co., (1) \$59,000; (2) \$2; (3) \$8; (10) \$8; (11) \$5; (12) 35 cts.; (13) 40 cts.; (14) \$21; (15) \$24; (16) \$5; (17) \$1.83; (18) 20 cts.; (19) 25 cts.; (20) \$2; (21) \$1.24; (22) 36 cts.; (23) \$3,000. Toledo Bridge Co., (1) \$58,810; (2) \$64,647; (3) \$55,070; (8) \$2; (9) \$1.80; (10) \$5.30; (11) \$3.75; (12) 45 cts.; (13) 35 cts.; (14) \$20; (15) \$25.50; (16) \$5; (17) 80 cts.; (18) 30 cts.; (19) 30 cts.; (20) \$1.50; (21) \$1.25; (22) 40 cts.; (23) \$15. Massillon Bridge Co., (1) \$84,300; (2) \$82. Willard & Corndell, (9) \$7.75; (10) \$5.25; (11) \$3.75; (12) 45 cts.; (13) 35 cts.; (14) \$20; (15) \$25.50; (16) \$5; (17) 90 cts.; (18) 30 cts.; (19) 30 cts.; (20) \$1.50. F. M. Townsend, (9) \$5.90; (10) \$4.80; (11) \$6.50; (12) 45 cts.; (13) 40 cts.; (14) 20 cts.; (15) \$25; (16) \$8; (17) \$1.10; (18) 25 cts.; (19) 50

THE LEAD-LINED IRON PIPE CO., Wakefield, Mass., showed specimens of its lead-lined iron water pipe, elbows, tees and fittings. Mr. Thos. E. Dwyer, Gen. Mgr., represented the company.

THE LUNKENHEIMER CO., Cincinnati, O., represented by Mr. Frank Schneider and Mr. S. L. Meyer, exhibited brass and iron steam valves, lubricators, oil cups and steam specialties.

THE WASHINGTON-GOODWIN METER CO., 1 Broadway, New York, was represented by Mr. F. C. Goodwin, and had on exhibit its adjustable-cam water meters in five-eighths to 1-in. sizes.

HENRY R. WORTHINGTON, 120 Liberty St., New York, exhibited specimens of the water meters made by this house, which was represented by Mr. Geo. W. Galbraith, Cleveland, and Mr. Lehman B. Halt.

THE NATIONAL METER CO., 84 and 86 Chambers St., New York, exhibited Crown, Nash and Empire water meters in several sizes each, including a 4-in. Crown meter. Mr. Geo. H. Carr represented the company.

THE PITTSBURG METER CO., East Pittsburg, Pa., was represented by Mr. A. G. Holmes, Secy., and Mr. A. J. Pray, and had on exhibition Pittsburg disc meters in sizes from five-eighths to 6 ins. and Westinghouse fish traps.

THE CLEVELAND RUBBER WORKS, Cleveland, O., was represented through its Cincinnati branch by Mr. W. G. Brown, Mgr. The exhibit included specimens of gaskets in various sizes, sheet and piston packing, valves, etc., and woven hose of various diameters.

MR. JACOB BAKER, 27 North 9th St., Richmond, Ind., had on view a full-size working model of a pump, constructed and operated in an original manner by the use of centrifugal force, for which he claims a very high efficiency with a small amount of power.

THE STANDARD OIL CO. was represented by Mr. W. C. Elliott and Mr. Geo. H. Hirst, both of Cincinnati, O. The exhibit of the company comprised a full line of samples of its vacuum, valve and cylinder oils, Renown engine oil and a display of ornamental and decorated candles.

THE MICHIGAN BRASS & IRON WORKS, Detroit, Mich., exhibited a full-size Michigan fire hydrant, with pipe connections, of the type adopted by the city of Louisville, Ky.; also gate valves for water, steam, gas, oil, etc., gate and compression hydrants and special valves and fittings. Mr. V. M. Wellman represented the company.

THE KEASBEY & MATTISON CO., Ambler, Pa., showed a full line of magnesia sectional pipe coverings, samples of the Ambler asbestos air-cell fire board, asbestos paper and mill board, asbestos weather-proof cold water paint, sectional air-cell pipe coverings, besides specimens of asbestos fiber and magnesia. Mr. Geo. H. McDermid, Mgr., and Mr. E. C. Wulfeck, Jr., represented the company.

CAPT. JOHN LINK, Newport, Ky., Chief of the Fire Department of that city for the past 27 years, had on view a small model of his patent frost jacket for protecting fire hydrants, consisting of a cast-iron cylinder or casing slipped down over the stock of the hydrant or plug and held in place by four adjustable guide-screws, the base resting upon the shoe of the hydrant. The device is in use by the Newport, Ky., fire department.

THE PHILLIP CAREY MFG. CO., Lockland, O., exhibited its various brands of asbestos magnesia, sectional steam pipe and boiler coverings, magnesia flexible cement roofing and asbestos retort cement. The company was established 25 years ago to manufacture asbestos coverings,

THE NATIONAL ELECTRIC CAR LIGHTING CO. announces that its New York office has been removed to the office of the Electric Axle, Light & Power Co., 109 Broadway.

THE GILLETTE-HERZOG MFG. CO., Minneapolis, through its representative, Mr. C. A. P. Turner, has received the contract for a car barn, 500 x 180 ft., for the District Street Ry., City of Mexico.

THE CONTINENTAL FILTER CO., 35 Wall St., New York, reports that it is at work upon a recent order for a pressure filter plant for the water-works at Clinton, Iowa; daily consumption, two million gallons.

THE AMERICAN BRIDGE CO. is being organized as a consolidation of 90% of the bridge building concerns in the United States; capital stock, \$65,000,000. The new company will be financed by J. & W. Seligman & Co., 21 Broad St., New York.

EL AGHA, Aleppo, Turkey, Asia, has been established with the sanction of the Ottoman Government and under the patronage of Ralf Pacha, Governor-General of the Vilayet of Aleppo, as a commercial house to import and distribute all kinds of modern irrigating and agricultural machinery. Catalogues and quotations are solicited.

THE NEW YORK FILTER MFG. CO., 26 Cortlandt St., New York, reports that it has just received an order from Fraserville, Canada, for water-works filter plant for that place; also that its Western associate, the O. H. Jewell Filter Co., of Chicago, has recently closed contracts for water-works filter plants for the towns of Dennison, Ohio, and Dunville, Ontario.

THE PITTSBURG BRIDGE CO., Pittsburg, through Collins & Norton, Springfield, Mass., its New England Agents, have recently received an order from the Raritan Copper Works, Perth Amboy, N. J., to build a large steel addition to its present tank building. It has also received from the towns of Marshfield and Norwell, Mass., a contract to build a three-span drawbridge over the North River between the two towns.

THE BIRMINGHAM CAST-IRON PIPE CO., Birmingham, Ala., is reported to have been organized by James Bowen, Vice-Pres. and Treas., Tennessee Coal, Iron & Ry. Co.; J. R. P. Dimmick, formerly of the U. S. Cast-Iron Pipe Co., and others, and it is stated that a \$250,000 plant will be erected at once in the vicinity of Birmingham. The reports say that Mr. Dimmick is now in the North purchasing machinery for the new plant.

THE F. D. CUMMER & SON CO., Cleveland, Ohio, reports recent sales of its mechanical dryers to the following: Laffin & Rand Powder Co., Pleasant Prairie, Wis.; United States Navy, Indian Head, Md.; Trent Valley Fuel Co., Peterboro, Ont.; Warren-Burnham Cement Co., Craigsville, Va.; Peeries Portland Cement Co., Union City, Mich. Recent shipments include: John McGillen, Chicago, one Cummer portable railway asphalt paving plant, guaranteed to lay 2,000 yds. of 2-in. topping a day of 10 hours; Societe Anonyme de Ciments de Vise, Brussels, Belgium, one dryer to dry 15 tons of chalk an hour, and one to dry 4 tons of clay an hour; T. Herbert Wymonde, Vancouver, B. C., one dryer, to dry 50 tons of fish scrap a day; Pennsylvania Salt Mfg. Co., Natrona, Pa., one 3-tunnel, 6-track tunnel system complete for drying iron ore briquettes; Vulcanite Portland Cement Co., Phillipsburg, N. J., one dryer for drying 75 tons of slack coal a day; Wm. Krause & Sons Cement Co., Martins Creek, Pa., one dryer for drying 2 1/2 tons of coal an hour; Premier Tripolite Co., North Sydney, N. S., one special dryer for drying tripolite.

The Circulation of ENGINEERING NEWS among Prominent Contractors Probably EXCEEDS that of any other FIVE PAPERS.



PERSONAL  
 Obituar  
 ENGINEER  
 Coming  
 Coming  
 TRADE P  
 CONSTRU  
 Condem  
 Railwa  
 Street  
 Electric  
 Bridges  
 Buildin  
 Water-  
 Irrigati  
 Sewera  
 Garbag  
 Streets  
 Manuf  
 Gas P  
 Miscel  
 Contru  
 INDUSTRI

Mr. Ch  
 dent of t  
 l'e has b

Mr. Ge  
 sistant E  
 moved h

Mr. Br  
 elected H  
 sociation

Mr. Gu  
 tric Ligh  
 in New  
 conventi

Mr. C.  
 Presiden  
 tion, has  
 annual

Mr. W  
 neering  
 Superint  
 Steel M

Mr. J.  
 the Chic  
 the mal  
 Junction

Mr. H  
 an asso  
 architec  
 vising  
 held at

Mr.  
 Wilkes  
 cently  
 vice M  
 connec

Mr.  
 partme  
 now in  
 quiry  
 into A  
 forcea.

Mr.  
 resign  
 gan L  
 and h  
 Falls  
 Pring  
 ing E

Mr.  
 Omaha  
 Omaha  
 has be  
 burne  
 tion.  
 and t

Mr.  
 point  
 F. M.  
 of th  
 man  
 topog  
 Wey

Mr.  
 hono  
 aged

Mr.  
 Man  
 at K

Mr.  
 died  
 year  
 orga

Mr.  
 bur  
 at

Mr.  
 nap

Mr.  
 Sec  
 He  
 pro

Mr.  
 kil  
 He

RIP-RAP WORK.—Larchmont, N. Y.—The following bids were received by the U. S. Engineers, Sept. 11, 1899, for rip-rap work: J. B. Conklin, 5189 Broadway, New York, 51 cts.; Hudson Construction Co., 57 cts.; S. F. Randolph, 63 cts.; J. H. Bouker, 63 cts.; Daniel Tooney, 63 cts.; Jno. Beattie, \$1.10.

DITCH.—Wabash, Ind.—The contract for the drainage ditch, 20 miles long, in Kosciusko county, known as the Yellow Creek ditch, has been awarded to John H. Hughes, Nappanee, at about 5 cts. a cu. yd. The work calls for about 500,000 yds. of earth excavation, and the total cost will be about \$25,000.

STREET SIGNS.—Minneapolis, Minn.—The following bids were received Sept. 8, 1899, for furnishing 5,000 street signs: Petersen & Naurer, Minneapolis, signs, 4 x 18-in., painted on No. 20 com. steel, 14 to 16 cts. each; skylight glass, 21 cts.; 3 1/2 x 12-in., 16 cts. Pittsburg Plate Glass Co., Pittsburg, Pa., 5,000 colored glass, etched, 3 x 15-in., 20 cts.; 2,500, 22 1/2 cts.; less than 2,500, 25 cts. Minneapolis Stamp & Stencil Co., Minneapolis, woven wire and marble, 5 x 24-in., 26 cts. each; 5 x 18-in., 22 cts.; blue enamel, 4 x 18-in., 32 cts. Aluminum Metal Stamping Co., 4 x 16-in., 23 cts.; 4 x 12-in., 24 1/2 cts. Geo. J. Sherer Sign Co., Minneapolis, blue enamel, 4 x 16 to 24-in., 38 cts. F. M. Burdick & Co., Chicago, Ill., blue enamel, 3 1/2 x 14, 18 and 21-in. letter, 2 1/2 ins. high, 26 cts.; 4 x 14, 18 and 21-in., 3 ins. high, 28 cts. Enamel Iron Co., Beaver Falls, Pa., blue enamel, 6 x 26-in. with border, 39 cts. each; without border, 38 cts.; 4 x 28-in., and under, with border, 28 cts.; and under, without border, 26 1/2 cts.

BLOW-OFF SEWERS, WATER PIPE, ETC.—New York, N. Y.—The following bids were received by the aqueduct commissioners Sept. 6, for constructing overflow and blow-off sewers, water pipe, etc., in connection with the Jerome Park reservoir:

cts.; (20) \$1.25; (21) \$1; (22) 40 cts.; (24) \$1,000. J. A. Swingle, (9) \$7.60; (10) \$5; (11) \$6; (12) 50 cts.; (13) 60 cts.; (14) \$20; (15) \$35; (16) \$10; (17) \$3; (18) 50 cts.; (19) 20 cts.; (20) 85 cts.; (21) \$1; (22) 50 cts.; (24) \$300. The bridge will consist of one span of 119 ft. and two of 21 ft. each, fixed, and one draw span of 230 ft. a roadway 32 ft. wide and two sidewalks 6 ft. wide each. Herman Lamb, Consult. Engr., Pittsburg, Pa.

INDUSTRIAL NOTES.

CENTRAL STATES WATER-WORKS ASSOCIATION.

The following exhibits were made by the firms named at the second annual convention of the Central States Water-Works Association, held at the Grand Hotel, Cincinnati, O., Sept. 5, 6 and 7:

THE THOMSON METER CO., 79 to 83 Washington St., Brooklyn, N. Y., exhibited the Lambert water meter in various sizes.

THE NEPTUNE METER CO., 253 Broadway, New York, had on view at its booth Trident water meters in sizes from five-eighths to 2 ins.

THE SIEBEN MFG. & SUPPLY CO., Kansas City, Mo., was represented by Mr. Henry Sieben, and showed numerous specimens of its ball-bearing stop and curb cocks.

THE PAYNE TAPPING MACHINE CO., Fostoria, O., exhibited its tapping machine, corporation, stop and curb cocks. Mr. Walter S. Payne represented the company.

THE HERSEY MFG. CO., South Boston, Mass., showed a full line of Hersey, Disc and Torrent water meters, the working of the latter type being fully shown by a sectional working model.

roofings, etc., and has installed all the steam pipe and boiler coverings for the Cincinnati water-works for the past ten years. The company also exhibited its special single air chamber ammonia and brine pipe coverings. It was represented by Mr. Geo. D. Crabbs, Pres. and Gen. Mgr., and Mr. R. E. Kramig.

THE H. MUELLER MFG. CO., Decatur, Ill., was represented by Mr. Fred. B. Mueller and Mr. F. L. Hays, Jr., and exhibited a full line of the Mueller water and gas tapping machines, water-works and plumbing supplies. The Gow improved meter tests, which is made to test all meters from 1/2 to 2 ins. under any size stream from 1-64 to 2 ins. in diameter, corporation cocks and stop and waste cocks, both straight and roundway, and roundway inverted key curb cocks, which are coming into use among water-works officials. The company presented all delegates and visitors to the convention with small gold pins representing the water-pressure regulator which it makes.

THE THOMPSON-NUBRING CHEMICAL CO., Cincinnati, O., exhibited the Thompson-Nubring water chemicalizer for fire extinguishing, disinfecting and fertilizing. The apparatus consists of six vertical cylinders, 10 ins. in diameter and 20 ins. in height, connected in a series and having a rubber hose attached to either end, one of which is coupled to the fire hydrant and the other terminating in a nozzle. The whole apparatus is mounted upon a four-wheeled hand truck and is intended for "chemizing" the stream of water as it comes from the fire hose or any of two cylinders, intended for use in dwellings, public buildings, etc.

THE LORAIN STEEL CO., Johnstown, Pa., is reported to have a contract for 50 miles of steel rails for the Honolulu Traction Co., Honolulu, H. I.

BIDS RECEIVED AT NEW YORK, N. Y., SEPT. 6, 1899, FOR BLOW-OFF SEWERS, WATER PIPE, ETC.

Thiel-Farrell & A. C. Wm. Chas. W. The John P. J. Pil- Frawley  
mann & Hopper, Chen- J. J. Hart Kelly Dalton, Collins, The Mc- John P. J. Pil- Frawley  
Smith, 215 W. oweth, & Co., & Kelley, 338 Webster Co., Donald, Ft. Wash-Rooney,

- Earth  
Rock  
Refill  
Brick  
Vitrif  
Concr  
Rubbl  
Dry r  
Blues  
Masoi  
Masoi  
Telfoi  
Cast-l  
Spech  
Spech  
Layin  
"  
"  
12-in.  
8-in.  
6-in.  
Wrou  
Heml  
Plue  
Pine

DITCI  
writes a  
1880, fo  
la., first  
yds., 21  
Chicago,  
Co., Gar  
RUBB  
U. S. E  
1880, fo  
Rockpol  
2,000 lb  
Ann Gr  
Cove, 71  
BREA  
were re  
U. S. E  
cent:

Items.	Donnelly, Buffalo.	Allen, Oswego.	Co., Oswego.
Hemlock a M. ft.	\$21.00	\$24.00	\$26.50
White oak a M. ft.	40.00	39.00	41.50
White pine a M. ft.	30.00	33.00	35.50
Screw bolts and washers, a lb.	.04	.04 1/4	.0685
The rods a lb.	.05	.05	.0496
Drift bolts a lb.	.04	.04	.0530
Wire spike a lb.	.05	.04 1/2	.05
Steel plate a lb.	.15	.04	.08
Mooring posts, each.	20.00	45.00	40.00
Trench excavation, a cu. yd.	.40	.64	.65
Stone in trench, a short ton.	.90	.94	.98 1/2
In cribs and superstructure.	.90	.94	.98 1/2
Total	\$35,993	\$39,996	\$44,696

BRIDGE.—Marietta, O.—The following bids were received Aug. 28, 1899, for furnishing the materials and for constructing the Putnam St. bridge over the Muskingum River: (1) being for superstructure, plan on file; (2) to 7, inclusive) being for superstructure, plan submitted; (8) hand-rail; masonry, (9) 1st class; (10) 2d class; (11) concrete, piling; (12) foundation; (13) fender, timber; (14) in foundation; (15) in fender pier; (16) iron in foundation; (17) removal of old bridge; (18) \$2, Penn Bridge Co., (1) \$70,000, price to advance after Sept. 1. New Columbus Bridge Co., (1) \$69,900, price to advance after Aug. 1; (8) \$1.50. Pittsburg Bridge Co., (1) \$75,000; (2) to 6, inclusive) \$86,867, \$89,950, \$88,917, \$79,561, \$82,945, \$81,111; (15) \$23; (17) \$1. Canton Bridge Co., (1) \$77,750, add for advance in price of material. Wrought Iron Bridge Co., (1) \$59,000; (8) \$2; (9) \$8; (10) \$8; (11) \$5; (12) 35 cts.; (13) 40 cts.; (14) \$21; (15) \$24; (16) \$5; (17) \$1.85; (18) 20 cts.; (19) 25 cts.; (20) \$2; (21) \$1.24; (22) 30 cts.; (23) \$3,000. Toledo Bridge Co., (1) \$58,810; (2) \$64,647; (3) \$55,670; (8) \$2; (9) \$1.50; (10) \$5.20; (11) \$3.75; (12) 45 cts.; (13) 35 cts.; (14) \$20; (15) \$25.50; (16) \$5; (17) 80 cts.; (18) 30 cts.; (19) 30 cts.; (20) \$1.50; (21) \$1.25; (22) 40 cts.; (23) \$15. Massillon Bridge Co., (1) \$84,500; (8) \$2. Willard & Cornell, (9) \$7.75; (10) \$5.25; (11) \$3.75; (12) 45 cts.; (13) 35 cts.; (14) \$20; (15) \$25.50; (16) \$5; (17) 90 cts.; (18) 30 cts.; (19) 30 cts.; (20) \$1.50. F. M. Townsend, (9) \$5.90; (10) \$4.80; (11) \$6.50; (12) 45 cts.; (13) 40 cts.; (14) 20 cts.; (15) \$25; (16) \$8; (17) \$1.10; (18) 25 cts.; (19) 50

THE PITTSBURG METER CO., East Pittsburg, Pa., was represented by Mr. A. G. Holmes, Secy., and Mr. A. J. Pray, and had on exhibition Pittsburg disc meters in sizes from five-eighths to 6 ins. and Westinghouse fish traps.

THE CLEVELAND RUBBER WORKS, Cleveland, O., was represented through its Cincinnati branch by Mr. W. G. Brown, Mgr. The exhibit included specimens of gaskets in various sizes, sheet and piston packing, valves, etc., and woven hose of various diameters.

MR. JACOB BAKER, 27 North 9th St., Richmond, Ind., had on view a full-size working model of a pump, constructed and operated in an original manner by the use of centrifugal force, for which he claims a very high efficiency with a small amount of power.

THE STANDARD OIL CO. was represented by Mr. W. C. Elliott and Mr. Geo. H. Hirst, both of Cincinnati, O. The exhibit of the company comprised a full line of samples of its vacuum, valve and cylinder oils, Renown engine oil and a display of ornamental and decorated candles.

THE MICHIGAN BRASS & IRON WORKS, Detroit, Mich., exhibited a full-size Michigan fire hydrant, with pipe connections, of the type adopted by the city of Louisville, Ky.; also gate valves for water, steam, gas, oil, etc., gate and compression hydrants and special valves and fittings. Mr. V. M. Weisman represented the company.

THE KEASBEY & MATTISON CO., Ambler, Pa., showed a full line of magnesia sectional pipe coverings, samples of the Ambler asbestos air-cell fire board, asbestos paper and mill board, asbestos weather-proof cold water paint, sectional air-cell pipe coverings, besides specimens of asbestos fiber and magnesia. Mr. Geo. H. McDermid, Mgr., and Mr. E. C. Wulfeck, Jr., represented the company.

CAPT. JOHN LINK, Newport, Ky., Chief of the Fire Department of that city for the past 27 years, had on view a small model of his patent frost jacket for protecting fire hydrants, consisting of a cast-iron cylinder or casing slipped down over the stock of the hydrant or plug and held in place by four adjustable guide-screws, the base resting upon the shoe of the hydrant. The device is in use by the Newport, Ky., fire department.

THE PHILLIP CAREY MFG. CO., Lockland, O., exhibited its various brands of asbestos magnesia, sectional steam pipe and boiler coverings, magnesia flexible cement roofing and asbestos retort cement. The company was established 25 years ago to manufacture asbestos coverings,

distribute all kinds of modern irrigating and agricultural machinery. Catalogues and quotations are solicited.

THE NEW YORK FILTER MFG. CO., 26 Cortlandt St., New York, reports that it has just received an order from Fraserville, Canada, for water-works filter plant for that place; also that its Western associate, the O. H. Jewell Filter Co., of Chicago, has recently closed contracts for water-works filter plants for the towns of Dennison, Ohio, and Dunville, Ontario.

THE PITTSBURG BRIDGE CO., Pittsburg, through Collins & Norton, Springfield, Mass., its New England Agents, have recently received an order from the Raritan Copper Works, Perth Amboy, N. J., to build a large steel addition to its present tank building. It has also received from the towns of Marshfield and Norwell, Mass., a contract to build a three-span drawbridge over the North River between the two towns.

THE BIRMINGHAM CAST-IRON PIPE CO., Birmingham, Ala., is reported to have been organized by James Bowen, Vice-Pres. and Treas., Tennessee Coal, Iron & Ry. Co.; J. R. P. Dimmick, formerly of the U. S. Cast-Iron Pipe Co., and others, and it is stated that a \$250,000 plant will be erected at once in the vicinity of Birmingham. The reports say that Mr. Dimmick is now in the North purchasing machinery for the new plant.

THE F. D. CUMMER & SON CO., Cleveland, Ohio, reports recent sales of its mechanical dryers to the following: Lafin & Rand Powder Co., Pleasant Prairie, Wis.; United States Navy, Indian Head, Md.; Trent Valley Peat Fuel Co., Peterboro, Ont.; Warren-Burnham Cement Co., Craigsville, Va.; Peerless Portland Cement Co., Union City, Mich. Recent shipments include: John McGillen, Chicago, one Cummer portable railway asphalt paving plant, guaranteed to lay 2,000 yds. of 2-in. topping a day of 10 hours; Societe Anonyme de Ciments de Vise, Brussels, Belgium, one dryer to dry 15 tons of chalk an hour, and one to dry 4 tons of clay an hour; T. Herbert Wymonde, Vancouver, B. C., one dryer, to dry 50 tons of fish scrap a day; Pennsylvania Salt Mfg. Co., Natrona, Pa., one 3-tunnel, 6-track tunnel system complete for drying iron ore briquettes; Vulcanite Portland Cement Co., Phillipsburg, N. J., one dryer for drying 75 tons of slack coal a day; Wm. Krause & Sons Cement Co., Martins Creek, Pa., one dryer for drying 2 1/2 tons of coal an hour; Premier Tripolite Co., North Sydney, N. S., one special dryer for drying tripoli.

The Circulation of ENGINEERING NEWS among Prominent Contractors Probably EXCEEDS that of any other FIVE PAPERS.

ADVERTISE YOUR WORK IN ENGINEERING NEWS

Supple

PERSONAL  
Obituar  
ENGINEER  
Coming  
Coming  
TRADE P  
CONSTRU  
Conden  
Railwa  
Street  
Electri  
Bridges  
Buildin  
Water-  
Irrigat  
Sewers  
Garbag  
Streets  
Manuf  
Gas P  
Miscel  
Contra  
INDUSTY

Mr. Ch  
dent of t  
He has b  
Mr. Gee  
sistant E  
moved hi  
Mr. Br  
lected F  
sociation  
Mr. Gu  
tric Ligh  
in New  
convent  
Mr. C  
Preside  
Hon. J  
antral  
Mr. W  
nearing  
Superi  
Steel M  
Mr. J  
the Ch  
the res  
Justice  
Mr. T  
an asso  
archite  
vising  
held at  
Mr.  
Wisco  
essaly  
vice  
connec  
Mr.  
perma  
new b  
quity  
into  
forese  
Mr.  
reagin  
gon  
and  
Falls  
Pring  
ing E  
Mr.  
Omaha  
Omaha  
has be  
burne  
tion.  
and t  
Mr.  
point  
F. M  
of th  
man  
topog  
Wey  
Mr.  
home  
aged  
Mr.  
Man  
at K  
Mr.  
died  
year  
orga  
Mr.  
bur  
at  
nap  
Mr.  
Soc  
He  
pro  
Mr.  
kil  
He