

## CONTENTS OF SUPPLEMENT.

PERSONAL .....	25
Obituary .....	25
ENGINEERING SOCIETIES .....	25
Coming Technical Meetings .....	25
NEW PUBLICATIONS .....	26
Trade Publications .....	26
CONSTRUCTION NEWS:	
Condensed List of Contracts Pending .....	26
Railways .....	27
Street and Electric Railways .....	28
Electric Light and Power .....	28
Bridges .....	29
Buildings .....	30
Water-Works .....	30
Sewerage .....	31
Garbage Disposal and Street Cleaning .....	31
Streets and Roads .....	31
Manufacturing Plants .....	32
Miscellaneous Contracts .....	32
INDUSTRIAL NOTES .....	32

## PERSONAL.

Mr. J. Foucart has been appointed City Engineer of Guthrie, Okla.

Prof. E. E. Lawson has opened an office in Dayton, Pa., as a civil engineer and surveyor.

Messrs. Benj. G. Ingalls, Chas. S. Haskell and M. V. B. Jones have been appointed Water Commissioners of Swampscott, Mass.

Mr. Albert E. Loomis has been appointed a member of the Board of Sewer Commissioners, of Oneida, N. Y., to succeed Mr. John V. Richardson, resigned.

Mr. Clifford Lewis, Jr., City Surveyor of Utica, N. Y., has resigned to accept the position of Inspector of Bridges on the Middle Division of the New York Central & Hudson River R. R.

Mr. Peter J. Nichols, General Superintendent of the Union Pacific R. R., with headquarters at Omaha, Neb., has been appointed General Superintendent of the Omaha Bridge & Terminal Ry., a newly created position.

Mr. Ernest W. Bowditch, Jun. Am. Soc. C. E., of 60 Devonshire St., Boston, Mass., has resigned his position as Consulting Engineer and Landscape Gardener of the Park Board of Cleveland, O., which he has held for the past five years.

Col. Charles S. Riche, of the First U. S. Volunteer Infantry, until recently First Lieutenant in the Corps of Engineers, U. S. A., stationed at Galveston, Tex., was married July 16 in that city to Miss Susan Horton Gabberry, of Denison, Tex.

Mr. Fingal C. Black, formerly County Engineer of Spartanburg county, South Carolina, has been commissioned a First Lieutenant in the Third Regiment of United States Volunteer Engineers and has been appointed enrolling officer, with headquarters at Spartanburg.

Col. George E. Waring, Jr., M. Inst. C. E., of New York city, has declined the position which it was stated in this column last week had been offered him, of Consulting Engineer and New York representative of the Dunning Engineering & Construction Co., of Scranton, Pa.

Messrs. Charles A. Schleren, Andrew H. Green, Hugh Kelly, Christopher C. Shayne and Alexander R. Smith, all of New York city, have been appointed by Governor Black as a commission to inquire into the decline of the commerce of that city and suggest legislation to foster its increase.

Mr. Walter C. Allen, Superintendent of Lamps, of Washington, D. C., has been appointed by the District Commissioners Chief Electrical Engineer of the District of Columbia, in charge of the fire alarm, telephone and telegraph systems, electrical conduits, electric railways, etc.

Mr. William L. Darling, M. Am. Soc. C. E., Division Engineer of the Northern Pacific Ry., with headquarters at St. Paul, Minn., has been appointed Assistant Chief Engineer of that railway, a new position. He will have jurisdiction over all lines east of Billings, Mont., with headquarters as heretofore.

Mr. Ferdinand W. Peck, of Chicago, Ill., has been appointed Commissioner-General to the Paris Exposition by President McKinley. He is a graduate of the University of Chicago, of which he is a Trustee, and was Chairman of the Finance Committee of the World's Columbian Exposition of 1893. He will establish his offices at once in the Auditorium Bldg., Chicago.

Mr. Harry C. Southworth, civil engineer, of Stoughton, Mass., was married July 11 to Miss Elizabeth Josephine Hill, of Dedham Centre, Mass. Mr. Southworth was a member of the railway commission on the abolition of the grade crossings on the New York, New Haven & Hartford R. R. Miss Hill has been for some time Supervisor of Drawing in the public schools of Lexington and Braintree.

Mr. Gaylord Thompson, M. Am. Soc. C. E., has been appointed by the common council of Rochester, N. Y., as expert engineer to assist the city assessors in the preparation of the assessment for the East Side trunk sewer, which was designed by Mr. Emil Kuehling, M. Am. Soc. C. E., about ten years ago, and was built by a special commission created for that purpose. It cost nearly \$1,000,000, which amount, together with accumulated interest, has now to be assessed upon the territory benefited. Mr. Thompson recently completed the construction of the West Side trunk sewer, also built by a special commission, and which cost about \$600,000. The first assessment for the latter sewer, made in 1893, was the subject of

such bitter controversy that it was set aside by the legislature in 1895; the commission was reorganized, with Mr. Thompson as engineer, and a new assessment was made which has since met with general approval.

Mr. U. S. G. White, Civil Engineer, United States Navy, who has been recently tried by court-martial on the charge of culpable negligence in connection with the failure of the new Dry Dock No. 3 at the New York Navy Yard, Brooklyn, as stated in our issue of June 23, has been sentenced to be placed on furlough pay for three years and to retain his present position on the list of officers of the same rank, until he shall have lost two numbers. Mr. White was in temporary charge of the work during the absence of Mr. A. G. Menocal, M. Am. Soc. C. E., whose trial was referred to in our issue of June 9.

## OBITUARY.

Mr. Richard J. Kessler, contractor, of Reading, Pa., died July 16, aged 43.

Mr. Jesse Hubbard, contractor, of Milwaukee, Wis., died July 22, aged 86.

Mr. F. H. Holly, Superintendent of Water-Works, of Paducah, Ky., died July 23.

Mr. Shepard Allen, railway contractor, of Birmingham, Ala., died July 21, aged 47.

Maj. Wilbur D. Fiske, of the Knowles Steam Pump Co. and the George F. Blake Mfg. Co., died at Melrose, Mass., July 20. He was a veteran of the Civil War, and for many years was a member of the Melrose Water Board, most of the time as its Chairman.

Mr. Ezekiel W. Woodward, civil engineer, died at his home in Tatham, Mass., July 19. He was born in Westmoreland, N. H., Dec. 4, 1828, and at the age of 17 began his career on the preliminary survey of the Chesire R. R. in that state. He was employed as a rodman and assistant engineer until the early 50's, when he went to Cincinnati, O., and assisted in laying the first T-rail on the Little Miami Ry. He next served as Assistant Engineer of the location and construction of the Cincinnati, Hamilton & Dayton Ry. and on the surveys for the Dayton & Michigan R. R. In 1851 he became the Chief Engineer of the Cincinnati, Wilmington & Zanesville Ry., and in 1853, Superintendent of the Steubenville & Indiana R. R. He made the surveys for the La Crosse & Milwaukee R. R., and on its completion entered the service of the Ohio & Mississippi R. R., later being advanced to the Superintendency of the Eastern Division. In 1860 he was appointed Superintendent of the Little Miami Ry., and in 1867 was elected President of the company. He held this office for a year, and then resigned to take part in the organization of the Cincinnati & Newport Bridge Co., and was Consulting Engineer for the bridge built by that corporation across the Ohio River at Cincinnati. He was elected President of the Indianapolis & St. Louis R. R. in 1871, and held the office until July, 1875. On Dec. 20, 1878, he was appointed Commissioner to sell the St. Louis Bridge & Tunnel Company's property, after which he was elected Vice-President of the reorganized company, and held the office until Oct. 8, 1881, when he retired from active business.

## ENGINEERING SOCIETIES.

## COMING TECHNICAL MEETINGS.

- WESTERN SOCIETY OF ENGINEERS.  
Aug. 3. "Establishment of Street Grades," Chas. P. Chase, Secy., N. L. Litten, Monadnock Block, Chicago, Ill.
- OHIO INSTITUTE OF MINING ENGINEERS.  
Aug. 4. Summer meeting, Toledo, Ohio. Secy., Robert M. Hazeltine, Columbus, O.
- TECHNICAL SOCIETY OF THE PACIFIC COAST.  
Aug. 5. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.
- CIVIL ENGINEERS' CLUB OF CLEVELAND.  
Aug. 9. Secy., Wm. H. Searles, Case Library Bldg., Cleveland, O.
- MONTANA SOCIETY OF ENGINEERS.  
Aug. 13. Secy., A. S. Hovey, National Bank Bldg., Helena, Mont.
- ENGINEERS' CLUB OF MINNEAPOLIS.  
Aug. 15. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.
- ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.  
Aug. 16. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburgh, Pa.
- WESTERN FOUNDRYMEN'S ASSOCIATION.  
Aug. 17. Secy., B. M. Gardner, 1522 Monadnock Block, Chicago, Ill.
- NEW ENGLAND ROAD MASTERS' ASSOCIATION.  
Aug. 17. Annual meeting, Boston, Mass. F. C. Stowell, B. & M. R. Ware, Mass.
- SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.  
Aug. 18 to 20. Annual meeting at Massachusetts Institute of Technology, Boston, Mass. Secy., Albert Kingsbury, Durham, N. H.
- AMERICAN MATHEMATICAL SOCIETY.  
Aug. 19-20. Annual meeting, Boston, Mass. Secy., F. N. Cole, Columbia University, New York city.
- AMERICAN CHEMICAL SOCIETY.  
Aug. 22-23. Annual meeting, Boston, Mass. Secy., Albert C. Hale, 551 Putnam Ave., Brooklyn, N. Y.
- AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.  
Aug. 22-27. Annual meeting, Boston, Mass. Secy., F. W. Putnam, Salem, Mass.
- GEOLOGICAL SOCIETY OF AMERICA.  
Aug. 23. Annual meeting Boston, Mass. Secy., H. L. Fairchild, Rochester, N. Y.
- AMERICAN INSTITUTE OF MINING ENGINEERS.  
Oct. 18. Annual meeting Buffalo, N. Y. Secy., R. W. Raymond, P. O. Box 223, New York city.

ENGINEERS' CLUB OF MINNEAPOLIS.—A regular meeting of this club was held July 18, at which the report of the committee of the American Society of Civil Engineers on "Standard Specifications for Cement Testing" was considered.

ST. LOUIS RAILWAY CLUB.—The last meeting of this club was held June 25 on board the steam ferryboat "Andrew Christy." Mr. William H. Bryan read a paper entitled "Recent Improvement in St. Louis Ferries." The various improvements were inspected, the "Christy" carrying the party to and from the railway terminals.

THE AMERICAN INSTITUTE OF MINING ENGINEERS will hold its annual meeting at Buffalo, N. Y., commencing Oct. 18, 1898. The local committee of arrangements has been appointed from the Engineers' Society of Western New York, and communications may be addressed to the President of the Society and Chairman of the committee, Mr. W. C. Johnson, Niagara Falls, N. Y. Further particulars will be given in a later circular. An excursion, at reduced rates, to the Omaha Trans-Mississippi and International Exhibition will be organized at the close of the Buffalo meeting, provided that a sufficient number of members notify Secretary R. W. Raymond of their intention to join such an excursion.

AMERICAN STREET RAILWAY ASSOCIATION.—The following preliminary list of papers is announced by Secretary T. C. Pennington for the annual meeting scheduled for Boston, Sept. 6-9:

"Maintenance and Equipment of Electric Cars for Railways." M. S. Hotchkiss; "To What Extent Should Railway Companies Engage in the Amusement Business." W. H. Holmes; "The Carrying of United States Mail Matter on Street Railways." W. S. Dimmock; "The Comparative Earnings and Economy of Operation Between Single and Double Truck Cars for City Use." Richard McCulloch; "Inspection and Testing of Motors and Car Equipment by Street Railway Companies." Frederick B. Perkins; "Cost of Electric Power for Street Railways at Switchboard; Both Steam and Water." R. W. Conant.

NEW ENGLAND ROADMASTERS' ASSOCIATION.—The 16th annual convention of this association will be held at Boston, Mass., Aug. 17-18, with headquarters at the Revere House. It is desired that those wishing to exhibit models or samples of railway apparatus notify the secretary, Mr. F. C. Stowell, on or before Aug. 14.

The following topics will be discussed and later reported upon by committees:

Minimum and maximum opening at ends of rails in their renewal; length of rails; diameter of bolts and holes in rails and joint bars; number and position of bolts and slots used.

Switch targets: Shall they be double or single line? Shall they show or not show a target for main line? Should not switch targets for main line switches be differently colored than targets for sidetrack switches?

What is the best wood for railroad ties: at what season of the year should it be cut for the best preservation of the timber? What advantages, if any, have metal ties over wood?

Should gage of tracks be widened on curves? If so, what should be rate of increase per degree of curvature and what the maximum limit of increase? What is the best method of preventing rails from creeping?

The use of cast or wrought-iron pipe for replacing box culverts. How large pipe can be used with safety: the greatest as well as the least amount of material advisable ton of pipe. Cost compared with first and second-class masonry.

Mr. F. C. Coates, N. Y., N. H. & H. R. R. will read a paper on "Recent Experiments in Tamping Ties by Compressed Air." F. C. Stowell, Secy.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE: Mechanical Science and Engineering Section.—The following is the preliminary programme of this section as given out by Prof. John J. Flather, Lafayette, Ind., who is acting secretary. The regular secretary, Prof. W. S. Aldrich, is at present on the U. S. repair ship "Vulcan." "High-speed Influence Machines." Chas. W. Warner, Cambridge, Mass.; "The Development of the Topographic Work of the United States Geological Survey and its Application to the Solution of Economic and Engineering Problems." Charles D. Walcott, Washington, D. C.; "Instruments and Methods of Hydrographic Measurements used by the United States Geological Survey." F. H. Newell, Washington, D. C.; "Proposed Methods of Determining the Frequency of Alternating Currents." Carl Kinsley, Falls Church, Va.; "On the Efficiency of Refrigerating Plants." Prof. Storm Bull, Madison, Wis.; "Some Experiments on a New Form of Impact Testing Machine." Prof. W. K. Hatt, Lafayette, Ind.; "On a Dynamometer Car and Its Equipment." Prof. L. P. Breckenridge, Champaign, Ill.; "An Integrating Dynamometer for Measuring the Work Done in Drawing a Train." Prof. Thomas Gray, Terre Haute, Ind.; "A Combined Absorption and Transmission Dynamometer for Laboratory Purposes." Prof. J. J. Flather, Lafayette, Ind.; "On the Measurement of Train Resistance by Dynamometer." Prof. F. C. Wagner, Terre Haute, Ind.; "On the Use of Platinum Resistance as a Pyrometer in Boiler Tests." Prof. F. C. Wagner, Terre Haute, Ind.; "A Comparison of the Efficiency of the Rheostat and the Series-Parallel Controller for Electric Cars." Prof. Thomas Gray, Terre Haute, Ind.; "Note on a Curious Example of Elastic Eolotropy in Steel." Prof. Thomas Gray, Terre Haute, Ind. Other papers will be presented, the subject of which will be announced later.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.—The program for the 6th annual meeting of this society to be held Aug. 18-20 in Boston, Mass., has just been announced. The meetings will be held at the

Massachusetts Institute of Technology, Room 22 Walker Bldg. During the three days the following papers will be presented:

Aug. 18: Address, President John B. Johnson; "The Mutual Adjustment of Class-room and Laboratory Instruction, Gaetano Lanza; "The Mounting of a Spherical Blackboard," A. E. Haynes; "Notes on the Organization of an Engineering Laboratory," H. B. Smith; "The Correct Theory and Method of Organization and Conduct of Professional Schools," R. H. Thurston; Report of the Committee on Entrance Requirements, H. W. Tyler, Chairman.

Aug. 19: "Some Phases of Engineering Education in the South," J. J. Wilmore; Report of the Committee on Uniformity of Symbols, T. C. Mendenhall (Chn.); "The Study of Electricity in Courses Other than Electrical," J. P. Jackson; "A Course in Industrial Chemistry for Technical Schools," F. L. Dunlap; "A New Laboratory Apparatus for Illustrating Longitudinal Impact," W. K. Hatt; "The Direct Study of Thermodynamics," S. A. Reeve; "Laboratory Instruction in Electrical Engineering," R. B. Owens; "A Course in Highway Engineering for Civil Engineers," W. R. Hoag; "Notes on Some Methods in Use in an Engineering Laboratory," F. C. Caldwell.

Aug. 20: "Sanitary Science as a Part of Every Science Course," W. T. Sedgwick; "The Conduct of Thesis Work," Edgar Marburg; "The Construction of Models by Students as an Aid in Teaching Descriptive Geometry," H. S. Jacoby; "The Training of Engineers for the Maintenance of Way Department on Railroads," J. C. Nagle.

The sessions will be held mornings and evenings, leaving the afternoons free for excursions or trips in inspection. Election of officers, appointment of committees and other general business will take place at the close of the last session.

PACIFIC COAST ELECTRIC TRANSMISSION ASSOCIATION.—The second annual convention of this association was held June 21 at the Cliff House, San Francisco, Cal. The first session, beginning 2.30 p. m., was executive, during which the various reports were read and acted upon, new members were elected, and the following officers were selected for the ensuing year:

President, W. Frank Pierce, Pres. of the Blue Lakes Water Co.; Vice-President, Carroll N. Beal, Secy. and Treas. of the Power Development Co.; Secretary, Geo. P. Low, editor and proprietor of "The Journal of Electricity;" Treasurer, William Angus, Secy. of the Standard Electric Co., of California; Executive Committee, the officers named, and Dr. C. Van Nordon, Pres. Central California Electric Co.

In opening the convention proper the president briefly stated the objects of the society which bore the same relation to the Pacific Coast electrical interests that the National Electric Association does towards Eastern electric companies.

The first paper, "Random Notes on Extremely High Potentials," by Leon W. Bly, was read by the secretary in the absence of the author. This was a brief review of some of the experiments with practical high tension transmission during the last two years and a statement of the conclusions to be drawn. These dealt mainly with the construction and insulation of the transformers and in a few words are: that manufacturers will guarantee transformers for services up to 60,000 volts, but 35,000 may be selected as a present safe limit. In very high tension work high efficiency is obtained by a sacrifice of insulation or regulation qualities; oil is an indispensable medium for insulation; a very high safety factor must be used in designing; in bringing out terminals the greatest care must be observed, and high tension coils should be subdivided and properly spaced.

In all apparatus, such as switches, instruments, etc., a liberal space allowance must be made to prevent arcing. In transmission circuits the pin and insulator should be considered an integral part, and while iron pins add strength they are a constant invitation to puncture. Capacity on high potential lines is receiving more attention, and while this could be balanced by reactance such a remedy affected the regulation of the line. The discussion which followed was practically all opposed to the author's recommendation of the use of oil, it being stated that air blast types of transformers were the most satisfactory and easiest repaired.

The fact, not heretofore properly considered, that the insulation materials used in transformer construction are subject to a somewhat rapid deterioration under the continuous strain of actual work was pointed out.

At the evening session a paper "On the Electrical Operation of Centrifugal Pumps," prepared by Mr. John Richards, was read by Mr. Robert McF. Dohie. This was a description of a plan submitted to the Drainage Commission of New Orleans, La. In a letter contributed by the author and read in connection with the paper, was given the following table, which he employs in designing centrifugal pumps. This table shows that the common opinion that these pumps can only be designed for a constant head is a mistake. From the table it will be seen that a pump running at a constant speed may operate at any head over a considerable range:

Head to produce the flow, ft.	Flow in ft. per minute.	Discharge, galls. per in. of area.
0.5	240	12
0.6	300	15
0.75	360	18
1.0	480	24
2.0	600	30
2.5	720	36
4.0	900	45
7.0	1,200	60

NEW PUBLICATIONS.

THE RELATION OF WATER TO TYPHOID FEVER.—A Lecture Delivered Before the Faculty and Students of the Ohio State University, Columbus, O., Feb. 7, 1898, and in Part Before the Denver and Arapahoe County Medical Society, Denver, Colo., March 8, 1898. By John W. Hill, C. E., Cincinnati, O. Printed for private circulation. Paper; 6 x 9 ins.; pp. 32; tables. This pamphlet makes available Mr. Hill's latest ideas and information on this important subject. It contains much interesting and valuable material.

NEW TESTS OF CERTAIN PUMPS AND WATER LIFTS USED IN IRRIGATION.—By Ozni P. Hood, Professor of Mechanics and Engineering at the State Agricultural College, Manhattan, Kan. No. 14, Water Supply and Irrigation Papers of the U. S. Geological Survey, Chas. D. Walcott, Director, Washington, D. C. Address the Director or Members of Congress. Paper; 6 x 9 ins.; pp. 89; one plate and 58 figures in the text; tables.

The first part of this pamphlet consists of descriptions of various types of simple lift pumps. Following this are descriptions and the results of tests of the Mark, Frizell, Van Voorhis and Cook pumps, and a discussion of the resistance to rotation offered by various crank-driven pumps. After this a few bucket and other forms of water lifts are described. The whole is amply illustrated and appears to be clearly written.

SANITARY CONVENTION at Detroit, Mich., Dec. 9 and 10, 1897. Supplement to the Report of the Michigan State Board of Health for the Year 1898. Paper; 6 x 9 ins.; pp. 160. Henry B. Baker, Secretary, Lansing, Mich.

Among the papers in this pamphlet the following may be named: "Streets and Alleys and Their Relation to the Public Health," by John McVicar, Detroit; "Typhoid Fever and the Water Supply of Detroit," by Gardner S. Williams, Detroit; "Bicycling, from Social, Business and Healthful Standpoints," by Theo. R. MacClure, Lansing. The paper by Mr. Williams contains a very interesting account of an abnormal increase in the deaths from typhoid fever in Detroit in 1892, which he believes was connected with dredging near the outlets of the sewers of Port Huron and dumping the material removed in the St. Clair River. Estimates indicate that the time required for the infected river water to flow to Detroit would be from 6 to 12 days. The number of deaths from typhoid fever in Detroit in 1892 was 209, or 19.9 per 10,000 living. In the other eight of the nine years from 1889 to 1897, inclusive, the greatest number of deaths occurred in the year following the outbreak named, being 97, or 3.95 per 10,000. In 1897 only 31 deaths, or 1.1 per 10,000, were reported.

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.)

STEAM AND HYDRAULIC PACKING.—La Favorite Rubber Mfg. Co., Paterson, N. J. Pamph.; 4 1/2 x 7 1/2 ins.; pp. 31.

A descriptive list of rubber compound packings for hollers, pipes, etc., and other rubber specialties.

SMALL ENGINES AND BOILERS.—Slip Machine Works, Paterson, N. J. Pamph.; 6 x 9 ins.; pp. 40. Engines and boilers from 1/4 to 2 HP. are illustrated in this catalogue; also castings for model engines for amateurs, students, etc. The Weed gas engine, and the Weed water motor are also illustrated.

MOTOR SUSPENSION—THE PATENT SITUATION.—The Walker Co., Cleveland, O.

The circular describes the points of difference between the General Electric method of suspending motors on electric cars and that of the Walker Co., with special reference to the patent litigation between the two companies.

PUMPING ENGINES.—Battle Creek Steam Pump Co., Battle Creek, Mich. Paper; 6 1/2 x 7 1/2 ins.; pp. 12 and 4.

The larger of these pamphlets contains a description of the Marsh deep-well engine, with lists of sizes and prices, and tables of capacity. The smaller pamphlet describes the Marsh sinking pump for sinking or recovering shafts and for general mining work.

BALDWIN LOCOMOTIVE WORKS.—Burnham, Williams & Co., Philadelphia, Pa.; pamph, 9 x 6 ins.; pp. 32; illustrated.

This pamphlet contains a brief description of the Baldwin Locomotive Works, illustrated by numerous half-tone engravings from photographs taken in and about the offices and shops.

ELECTRIC RAILWAY MOTOR SUSPENSION CASE.—Pamph.; 6 x 9 ins.

This pamphlet gives the full text of Judge Buffington's opinion in the case of the Sprague Electric Railway & Motor Co. vs. The Steel Motor Co., filed in the U. S. Circuit Court, Western District of Pennsylvania, July 12, 1898.

GRAPHITE AS A LUBRICANT.—Joseph Dixon Crucible Co., Jersey City, N. J. Pamph.; 5 x 7 ins.; pp. 32.

The contents of this pamphlet are chiefly the same as those of the 1897 edition, with a few additions. One of them is an account of the use of graphite for lubricating gas engine cylinders, and another describes an oil pump for feeding graphite into cylinders.

CHAPMAN'S PATENT ELECTRO-PNEUMATIC BRAKE.—The Miller, Du Brul & Peters Mfg. Co., 507 East Pearl St., Cincinnati, Ohio.

This pamphlet describes a French invention, consisting of an electric attachment to any ordinary air brake, by means of which the valves are operated by electricity. It is said that this invention is meeting with some favor on French railways, which is another example of the fondness for complicated machinery which is a noticeable feature of French mechanical engineering. We feel entirely safe

in saying that no American railway manager could be induced to add the complications of electric attachments of any sort whatever to the air brakes on his rolling stock.

AIR COMPRESSORS.—The Ingersoll-Sergeant Drill Co., 26 Cortlandt St., New York. Catalogue No. 22. Pamph.; 6 x 9 ins.; pp. 96.

This is an illustrated description, with lists of sizes, etc., of the air compressors built by this well-known firm. It contains much useful information on compressed air, which should be in the hands of every engineer who is interested in the subject.

ELECTRIC MINE HAULAGE.—Baldwin Locomotive Works and the Westinghouse Electric Mfg. Co., Philadelphia, Pa., or Pittsburgh, Pa. Pamph.; 6 x 9 ins.

This is a neat pamphlet, briefly describing a new form of electric locomotives for mine service in which a number of improvements have been introduced. A table is included giving the general dimensions for sizes from 20-HP. to 150-HP.

HYDRAULIC MACHINERY.—Chambersburg Engineering Co., Chambersburg, Pa. Catalogue No. 23. Pamph.; 6 x 9 ins.; pp. 16.

The machinery illustrated in this catalogue comprises hydraulic cranes, accumulators and ratchet, in different styles. The company makes a specialty of designing and building special machines to order, and also builds steam engines of several kinds.

GASOLINE LEAD-MELTING FURNACE.—Wm. E. Virtue, 59 Pennsylvania Ave., Newark, N. J. Paper; 3 1/2 x 6 ins.; pp. 6; illustrated.

This pamphlet describes a lead-melting pot mounted above a gasoline burner. The furnace is made in several sizes. Convenience and economy of time and fuel are claimed for the device, which is said to be in use in Newark, Washington and other cities.

GASOLINE ENGINES.—Waterous Engine Works Co., St. Paul, Minn. Pamph.; 9 x 6 ins.; pp. 19.

The engine described in this catalogue is of the horizontal type. It is built in many sizes. A combined gasoline engine and pump is illustrated, the pump being driven from the engine shaft through spur gearing. A gasoline fire engine is also shown. It appears to be suitable for the fire service of small villages.

CENTRIFUGAL PUMPS.—The Lawrence Machine Co., Lawrence, Mass. Catalogue No. 8. Pamph.; 8 x 5 ins.; pp. 48.

This pamphlet contains lists of centrifugal pumps in a variety of styles, both vertical and horizontal, driven by belt, steam engine or electric motor. Sizes up to 60 ins. are listed. On the cover the word pumps is spelled pmpms. This fad of using a V for a U should be left to the architects, and they ought to be ashamed of it.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
July 28.	Electric light plant, Gaylord, Minn.	Gaylord, Minn.	July 21
July 28.	Advertised, Engineering News, July 21.		July 21
July 28.	Street railway, Plymouth, Mass.	Plymouth, Mass.	July 21
July 28.	Sewers, North Braddock, Pa.	North Braddock, Pa.	July 21
July 28.	Stone flag, etc., Brooklyn, N. Y.	Brooklyn, N. Y.	July 21
July 28.	Pipe sewers, New York, N. Y.	New York, N. Y.	July 21
July 28.	Iron sewer pipe, etc., London, Ont.	London, Ont.	July 21
July 28.	Water mains, New York, N. Y.	New York, N. Y.	July 21
July 28.	Cleaning paved streets, Buffalo, N. Y.	Buffalo, N. Y.	July 21
July 28.	Iron bridge, New Philadelphia, O.	New Philadelphia, O.	July 21
July 28.	Masonry work, Louisville, Ky.	Louisville, Ky.	July 21
July 28.	Advertised, Eng. News, June 30 to July 21.		June 30
July 28.	Water pipe, hydrants, etc., Renovo, Pa.	Renovo, Pa.	July 14
July 28.	Advertised, Eng. News, July 14 and 21.		July 14
July 28.	Electric light plants, Syracuse, N. Y.	Syracuse, N. Y.	July 28
July 28.	Asphalt paving, Peoria, Ill.	Peoria, Ill.	July 28
July 28.	Granite paving, Lewiston, Me.	Lewiston, Me.	July 28
July 28.	Pipe sewers, Reading, Pa.	Reading, Pa.	July 28
July 28.	Sewers, Lima, O.	Lima, O.	July 28
July 28.	Asphalt sidewalks, Riverton, N. J.	Riverton, N. J.	July 28
July 28.	Artificial curb, etc., Minneapolis, Minn.	Minneapolis, Minn.	July 28
July 28.	Brick paving, Laporte, Ind.	Laporte, Ind.	July 28
July 28.	Ditch paving, Lafayette, Ind.	Lafayette, Ind.	July 28
July 28.	Hospital building, Atlanta, Ga.	Atlanta, Ga.	July 28
July 28.	Superstructure, Woodsfield, O.	Woodsfield, O.	July 28
July 28.	Hospital building, Cleveland, O.	Cleveland, O.	July 14
July 28.	Pike road, Spencer, Ind.	Spencer, Ind.	July 14
July 28.	Sluice gates, Cincinnati, O.	Cincinnati, O.	July 7
July 28.	Advertised, Eng. News, July 7 to 21.		July 7
July 28.	Pine timber, New York, N. Y.	New York, N. Y.	July 21
July 28.	Viaduct, Chicago, Ill.	Chicago, Ill.	July 21
July 28.	Sewers, Omaha, Neb.	Omaha, Neb.	July 21
July 28.	Telephone system, Mankato, Minn.	Mankato, Minn.	July 21
July 28.	Addition to school, Buffalo, N. Y.	Buffalo, N. Y.	July 21
July 28.	Grading, etc., Richmond, Ind.	Richmond, Ind.	July 21
July 28.	Paving, Omaha, Neb.	Omaha, Neb.	July 21
July 30.	Sewer system, disposal beds, Flemington, N. J.	Flemington, N. J.	July 21
July 30.	Advertised, Eng. News, July 21 and 28.		July 21
July 30.	Pipe sewers, Aurora, Ind.	Aurora, Ind.	July 21
July 30.	Bridge, St. Hermenegilde, Que.	St. Hermenegilde, Que.	July 7
July 30.	Brick paving, Ashland, O.	Ashland, O.	July 7
July 30.	Advertised, Eng. News, July 7 and 14.		July 7
July 30.	Iron bridge, Cincinnati, O.	Cincinnati, O.	July 14
July 30.	Buildings, Ellis Island, N. Y.	Ellis Island, N. Y.	July 14
July 30.	Court house and jail, Cando, N. Dak.	Cando, N. Dak.	July 14
July 30.	School building, Provo City, Utah.	Provo City, Utah.	July 14
July 30.	School building, Elbowoods, N. Dak.	Elbowoods, N. Dak.	July 14
July 30.	Electric lighting, Washington, D. C.	Washington, D. C.	July 14
July 30.	Advertised, Engineering News, July 14.		July 14
July 30.	Sewers, Winthrop, Mass.	Winthrop, Mass.	July 28
July 30.	Bridge repairs, Ukiah, Cal.	Ukiah, Cal.	July 28
July 30.	Bridge, Northfield, Mass.	Northfield, Mass.	July 28
July 30.	Stand-pipe foundation, Newburyport, Mass.	Newburyport, Mass.	July 28
July 30.	Brick paving, Jamestown, N. Y.	Jamestown, N. Y.	July 28
July 30.	Cedar block paving, Detroit, Mich.	Detroit, Mich.	July 14
July 31.	Brick paving, Independence, Kan.	Independence, Kan.	June 23
July 31.	Water supply, Tangier, Morocco.	Tangier, Morocco.	June 23
July 31.	Street bonds, Canton, O.	Canton, O.	July 21
Aug. 1.	Macadamizing, etc., Suffield, Conn.	Suffield, Conn.	July 21
Aug. 1.	Pipe sewers, Elizabeth, N. J.	Elizabeth, N. J.	July 21
Aug. 1.	School bonds, Taylorsville, Ill.	Taylorsville, Ill.	July 21
Aug. 1.	Lighthouse, New Haven, Conn.	New Haven, Conn.	July 21
Aug. 1.	Advertised, Eng. News, July 21 and 28.		July 21
Aug. 1.	Street bonds, Berea, O.	Berea, O.	July 21
Aug. 1.	Jail building, Richfield, Utah.	Richfield, Utah.	July 21
Aug. 1.	Asphalt paving, Buffalo, N. Y.	Buffalo, N. Y.	July 21

Aug. 1. Water pipe, etc., Rock Island, Ill. ....	July 14
Aug. 1. Bridge, Centralia, Wash. ....	July 21
Aug. 1. Bridges (3), Chehalis, Wash. ....	July 21
Aug. 1. Bridges (200 ft.), Claquato, Wash. ....	July 21
Aug. 1. Electric light plant, Charleston, S. C. ....	June 30
Aug. 1. Power canal, Ellensburg, Wash. ....	June 30
Aug. 1. Jail building plans, Syracuse, N. Y. ....	July 7
Aug. 1. Steel bridges (3), Wichita, Kan. ....	July 7
Aug. 1. Iron bridge, Bloomfield, N. J. ....	July 14
Aug. 1. School building, Lake Belt, Minn. ....	July 14
Aug. 1. Pile bridges (3), Red Cloud, Minn. ....	July 14
Aug. 1. Boilers, heaters, etc., Concord, Mass. ....	July 14
Aug. 1. Macadamizing, Toledo, O. ....	July 14
Aug. 1. Macadam road, Proviso, Ill. ....	July 14
Aug. 1. Asphalt paving, Rockford, Ill. ....	July 28
Aug. 1. Pipe sewers, Belfast, Me. ....	July 28
Aug. 1. Pipe sewers, Jersey City, N. J. ....	July 28
Aug. 1. Sewers, Kane, Pa. ....	July 28
Aug. 1. Sewers, Martinez, Cal. ....	July 28
Aug. 1. School building, London, Ont. ....	July 28
Aug. 1. Fire hose, Troy, N. Y. ....	July 28
Aug. 1. Stop cocks, lead, etc., Jersey City, N. J. ....	July 28
Aug. 1. Brick paving, Burlington, Ia. ....	July 28
Aug. 1. Cedar block paving, Chicago ....	July 28
Aug. 1. Court house bonds, Paterson, N. J. ....	July 28
Aug. 1. Macadam paving, Janesville, Wis. ....	July 28
Aug. 1. Paving, Rochester, N. Y. ....	July 28
Aug. 1. School building, Heyworth, Ill. ....	July 28
Aug. 1. Steam heating, Danville, Ill. ....	July 28
Aug. 1. School building, Spokane, Wash. ....	July 28
Aug. 1. Water pipe, etc., Braddock, Pa. ....	July 28
Aug. 1. Water-works, Blair, Wis. ....	July 28
Aug. 1. Macadamizing, etc., White Plains, N. Y. ....	July 28
Aug. 1. Paving, curbing, etc., Jersey City, N. J. ....	July 28
Aug. 1. School building, Logansport, Ind. ....	July 28
Aug. 1. Road bonds, Paterson, N. J. ....	July 28
Aug. 2. Cable bridge, Auburn, Cal. ....	July 28
Aug. 2. Sidewalks, etc., White Plains, N. Y. ....	July 28
Aug. 2. Iron bridges (3), Paterson, N. J. ....	July 28
Aug. 2. Brick sewers, Springfield, Mass. ....	July 28
Aug. 2. Pipe sewers, Plattsburg, N. Y. ....	July 28
Aug. 2. Sewers, Bayonne, N. J. ....	July 28
Aug. 2. Pipe sewers, Waverly, Ia. ....	July 28
Aug. 2. Addition to school, Jackson, Miss. ....	July 28
Aug. 2. Brick paving, Kewanee, Ill. ....	July 21
Aug. 2. Bridge work, Oregon, Mo. ....	July 28
Aug. 2. Power house, Portsmouth, N. H. ....	July 28
Aug. 2. Electric light plant, Lansdale, Pa. ....	July 28
Aug. 2. Ladder truck, Cincinnati, O. ....	July 28
Aug. 2. Water mains, etc., Albany, N. Y. ....	July 28
Aug. 2. Water-works, Baldwin, Ia. ....	July 28
Aug. 2. Water-works bonds, Cincinnati, O. ....	July 28
Aug. 2. Steam heating, Hartwell, O. ....	July 14
Aug. 2. Dredging, Lorain, O. ....	July 14
Aug. 2. Bonds, Holly Springs, Miss. ....	July 7
Aug. 2. Road work, Anacosta, Mont. ....	July 7
Aug. 2. Arc lighting, Lebanon, Pa. ....	June 30
Aug. 2. Steel rails, Ottawa, Ont. ....	June 16
Aug. 2. Bridge, Lodi, Cal. ....	July 21
Aug. 2. Electric light plant, Indianapolis, Ind. ....	July 21
Aug. 2. City hall, Centralia, Ill. ....	July 21
Aug. 2. Repairing asphalt, etc., Brooklyn, N. Y. ....	July 21
Aug. 2. Pipe sewer, Wallingford, Conn. ....	July 21
Aug. 2. Wharf, Point Wilson, Wash. ....	July 21
Aug. 2. Electric light plant, Yale, Mich. ....	July 21
Aug. 2. Pumping station, Albany, N. Y. ....	July 21
Aug. 2. Paving cement, New York, N. Y. ....	July 21
Aug. 2. Bridge, Bloomfield, Cal. ....	July 21
Aug. 2. Levee work, West Memphis, Ark. ....	June 30
Aug. 3. Paving, etc., Cincinnati, O. ....	July 14
Aug. 3. Electric light plant, London, Ont. ....	July 14
Aug. 3. Hoist bridge, Sidney, O. ....	July 21
Aug. 3. Dredging, Norfolk, Va. ....	July 28
Aug. 3. Fire engines and boilers, Chicago, Ill. ....	July 28
Aug. 3. Special castings, Chicago, Ill. ....	July 28
Aug. 3. Brick paving, etc., Wilkesburg, Pa. ....	July 28
Aug. 3. Bridges (4), Arbutckle, Cal. ....	July 28
Aug. 3. Bridge repairs, New Brunswick, N. J. ....	July 28
Aug. 3. Granite block paving, Charleston, S. C. ....	July 28
Aug. 3. Hose wagon, Leavenworth, Kan. ....	July 28
Aug. 3. Jail building, Toledo, O. ....	July 28
Aug. 4. Electric railway franchise, Plainfield, N. J. ....	July 28
Aug. 4. Bridge, Urbana, Ill. ....	July 28
Aug. 4. Paving bonds, Carlshad, N. J. ....	July 28
Aug. 4. Bridge, Goldenale, Wash. ....	July 28
Aug. 4. Hospital building, Lockport, N. Y. ....	July 28
Aug. 4. Bridge bonds, Jersey City, N. J. ....	July 28
Aug. 4. Substructure, Brooklyn, N. Y. ....	July 28
Aug. 4. Dam, tunnel, etc., Ogden, Utah. ....	July 21
Aug. 4. Addition to court house, York, Pa. ....	July 21
Aug. 4. Water pipe, Cattaraugus, N. Y. ....	July 21
Aug. 5. Pier, Cleveland, O. ....	July 14
Aug. 5. Engines (2), Concord, Mass. ....	July 28
Aug. 5. Sewers, grading, etc., Wilmington, Del. ....	July 28
Aug. 5. Court house, Portland, Ore. ....	July 28
Aug. 5. Arch bridge, Springfield, Tenn. ....	July 28
Aug. 5. Hospital building, Zumbrota, Minn. ....	July 28
Aug. 5. Levee work, Desha county, Ark. ....	July 28
Aug. 5. Roadway (2,000 ft.), Ridgway, Pa. ....	July 28
Aug. 6. Bridge bonds, Brattleboro, Vt. ....	July 28
Aug. 6. Ditch, Kenton, O. ....	July 28
Aug. 6. Drainage ditch, Arthur, Ill. ....	July 28
Aug. 6. Tilt and excavating, Champlain, Ill. ....	July 28
Aug. 6. Street work, Mansfield, O. ....	July 14
Aug. 6. Dike, York River, Va. ....	July 7
Aug. 6. Bridge work, Olympia, Wash. ....	July 21
Aug. 6. Dredging, etc., Virginia. ....	July 7
Aug. 8. Sewers, Toledo, O. ....	July 21
Aug. 8. School building, Peterson, Utah. ....	July 21
Aug. 8. Street bonds, Lima, O. ....	July 21
Aug. 8. Paving, Toledo, O. ....	July 21
Aug. 8. Street work, Lafayette, Ind. ....	July 21
Aug. 8. Water pipe, etc., Wainpipe, Man. ....	June 16
Aug. 8. Brick paving, Anderson, Ind. ....	July 14
Aug. 8. Repairing asphalt, Cincinnati, O. ....	July 14
Aug. 8. Bridge, Salem, Mass. ....	July 28
Aug. 8. Grading, etc., Salem, Mass. ....	July 28
Aug. 8. Asphalt paving, New Orleans, La. ....	July 28
Aug. 8. Pipe sewer, Latrobe, Pa. ....	July 28
Aug. 8. Pipe sewers, Montclair, N. J. ....	July 28
Aug. 8. Plans for high schools, Wilmington, Del. ....	July 28
Aug. 8. School bonds, Anacosta, Mont. ....	July 28
Aug. 9. Brick paving, Schenectady, N. Y. ....	July 28
Aug. 9. Iron bridges (9), Alma, Neb. ....	July 28
Aug. 9. Bridge work, Jackson, Miss. ....	July 28

Aug. 9. Excavation, Boston, Mass. ....	July 28
Aug. 9. Pipe laying, Boston, Mass. ....	July 28
Aug. 9. Street work, Orrville, O. ....	July 14
Aug. 9. Torpedo boats, Washington, D. C. ....	July 7
Aug. 9. Furniture, Binghamton, N. Y. ....	July 21
Aug. 10. Bridge, Batavia, O. ....	July 21
Aug. 10. Iron truss bridge, Cincinnati, O. ....	July 21
Aug. 10. Bridge masonry work, Norristown, Pa. ....	July 14
Aug. 10. Water-works, Pomeroy, O. ....	July 14
Aug. 10. Macadamizing, Cincinnati, O. ....	July 14
Aug. 10. Grading, curbing, etc., Spokane, Wash. ....	July 28
Aug. 10. Bonds, Newark, N. J. ....	July 28
Aug. 10. Sewers, Norfolk, Conn. ....	July 28
Aug. 10. Electric light plant, Shanghai, China. ....	July 28
Aug. 10. Macadam paving, Rockville, Md. ....	July 28
Aug. 11. Brick paving, curb, etc., Alexandria, Va. ....	July 28
Aug. 11. School building, Springfield, Mass. ....	July 28
Aug. 12. Bridge masonry, Butler, Pa. ....	July 28
Aug. 12. Steam pump, Salem, N. J. ....	July 28
Aug. 12. Water filter plant, Salem, N. J. ....	July 28
Aug. 12. Art building addition, Des Moines, Ia. ....	July 21
Aug. 13. Pipe sewer, Ashtabula, O. ....	July 28
Aug. 13. Brick paving, Chillicothe, O. ....	July 28
Aug. 13. Brick paving, Mansfield, O. ....	July 28
Aug. 15. Drainage ditch, Ottawa, Ill. ....	July 28
Aug. 15. Paving bonds, Oberlin, O. ....	July 28
Aug. 15. Water bonds, Barnesboro, Pa. ....	July 28
Aug. 15. Paving, etc., Fremont, O. ....	July 21
Aug. 15. Grading, Omaha, Neb. ....	July 21
Aug. 15. Exhibition bldg. plans, Glasgow, Scotland. ....	June 2
Aug. 16. Electric light plant, Minster, O. ....	July 21
Aug. 16. Pipe sewer, Oberlin, O. ....	July 28
Aug. 17. Sidewalks, St. Bernard, O. ....	July 28
Aug. 18. Water supply, Jersey City, N. J. ....	July 14
Aug. 18. Army supplies, Memphis, Tenn. ....	July 28
Aug. 18. Grading, etc., Defiance, O. ....	July 28
Aug. 19. Viaduct substructure, Cleveland, O. ....	July 28
Aug. 19. Administration bldg., etc., Stockton, Cal. ....	July 28
Aug. 19. Asphalt paving, Cleveland, O. ....	July 28
Aug. 20. Bridge substructures (2), Cleveland, O. ....	July 21
Aug. 20. Dredging, Montgomery, Ala. ....	July 28
Aug. 20. Paving bonds, Mansfield, O. ....	July 28
Aug. 20. Electric lighting, Whitesboro, N. Y. ....	July 14
Aug. 20. Street bonds, Malta, O. ....	July 21
Aug. 22. Electric light plant, Mineral Point, O. ....	July 28
Aug. 22. Steel substructure, Lebanon, O. ....	July 28
Aug. 22. Water-works, Mineral Point, O. ....	July 28
Aug. 23. School building, Columbus, O. ....	July 28
Aug. 23. Water pipe, Coolgardie, West Australia. ....	June 2
Aug. 24. Water piping plant, Mobile, Ala. ....	July 28
Aug. 25. Lighthouse, Baltimore, Md. ....	July 28
Aug. 26. Pump engines (2), Minneapolis, Minn. ....	July 21
Aug. 29. Pumping eng. (3,000,000 gals.), Marietta, O. ....	July 28
Aug. 30. Plans for electric traveling crane, Chicago. ....	July 21
Sept. 1. Battleships (3), Washington, D. C. ....	June 23
Sept. 1. Drainage system, Savannah, Ga. ....	June 30
Sept. 1. Electric light plant, Cullman, Ala. ....	July 21
Sept. 1. Water-works, Norwood, N. Y. ....	July 21
Sept. 3. Sewage pumping station, Boston, Mass. ....	July 7
Sept. 12. Hospital plans, San Francisco, Cal. ....	Mar. 24
Sept. 13. Capitol building, Helena, Mont. ....	July 28
Sept. 15. Enlarging court house, Lisbon, N. Dak. ....	July 28
Oct. 1. Monitors (4), Washington, D. C. ....	July 7
Oct. 1. School building (equipment), St. Thomas, Ont. ....	Apr. 28
Oct. 24. Market, etc., Belem, Brazil. ....	June 16
Oct. 30. School building, Chetaha, Wash. ....	June 16
Dec. 31. Plans for station, etc., Stockholm, Sweden. ....	June 23
No date. Pump engine, Martinsburg, W. Va. ....	July 21
No date. Garbage disposal plant, Newport, Ky. ....	July 21
No date. School building, Fresno, Cal. ....	July 28

**RAILWAYS.**

ABBEVILLE.—Chas. R. Corbett and George Forrest have been awarded the contract for the construction of four miles of railway between Abbeville, La., and the Caffrey sugar refinery, at a cost of about \$12,000. Seven miles more are still to be constructed for.

ATLANTIC & DANVILLE.—S. P. Daniel, Virgilina, Va., writes us that he has been placed in charge of a field party for the purpose of making surveys for an extension of the line of this railway to the copper mines in Virginia and North Carolina, near Virgilina, Va.

BALTIMORE & OHIO.—The receivers of this road have decided to improve the grades on that portion of the third division lying between Altamont, the top of the 17-mile grade, and Terra Alta, where the Cranberry grade begins to descend. The line passes through Deer Park and Oakland, and crosses the Allegheny Mountains, where the grades are short and choppy, some being 80 to 85 ft. to the mile. Work is now in progress at No. 58 cut, the grade being reduced from 81 to 42½ ft. per mile. It is expected that the cutting down of this grade will enable the train load to be increased from 1,000 to 1,300 tons on east-bound trains. One mile of the roadway will be lowered and it is expected that the work will be completed by the middle of October. R. M. Sheets, Div. Supt., Grafton, W. Va.

BOOMER COAL & COKE CO.—It is reported that this company will build an extension to its new mines up Boomer's Branch, about 20 miles from Charleston, W. Va. Clifford Buxton, Toledo, O., Ch. Engr., Ohio Central R. R., may be addressed.

CEDAR RIVER.—Saml. Crawford, David E. Crawford and Earl H. Crawford are reported to have bought 53,000 acres of land in Delta and Menominee counties from the Spalding Lumber Co., including the mills and docks at Cedar River, Mich., for \$160,000, and will build a railway from the latter place to some point on the Chicago & Northwestern R. R., about 27 miles, in order to market about 300,000,000 ft. of standing timber on these lands.

CINCINNATI NORTHERN.—This road will be extended to Jackson, Mich., according to a press report. Surveys are now being made. R. L. Reed, Cincinnati, O., Ch. Engr.

CENTRAL MICHIGAN.—The bonds of this road have been sold and work on the proposed extension from Pioneer, O., to Grand Rapids, Mich., will be commenced at once, according to report. J. W. Boynton, Pres. and Treas., Grand Rapids.

CHICAGO GREAT WESTERN.—It is reported that this road will be extended to Omaha, Neb., via Mason City and Story City, and that surveys are now being made on three divisions of the proposed line. H. Fernstrom, St. Paul, Minn., Ch. Engr.

CLEARFIELD SOUTHERN.—A. W. Lee, Pres., writes us that the surveys for this road, the incorporation of which was noted in our issue of July 14, have been nearly completed, and the right of way and capital have been secured. The road will run from Helena Mills, where it will connect with the Pennsylvania R. R., to Clearfield Bridge, a station on the Beech Creek R. R., 15 miles. Saml. Brugger, Fleming, Pa., Ch. Engr.

EAST CAROLINA.—The directors of this railway, the incorporation of which was noted in our issue of July 14, have resolved to issue \$20,000 in bonds to run for 20 years, at 6%, to be secured by a first mortgage and deed of trust on the entire property. Pres. Henry Clark Bridges, Tarboro, N. C., may be addressed.

FAIRCHILD & NORTH EASTERN.—J. W. Gorman, Greenwood, Wis., has received the contract to build an extension to this road eastward, according to report. Ch. Engr., G. W. Godfrey, Fairchild, Wis.

GALVESTON, LAPORTE & HOUSTON.—This road is reported to have been bought by the Chicago, Rock Island & Texas Ry., through Geo. C. Holt, Woodstock, Ont., and will develop a through line to the Gulf. S. B. Hovey, Vice-Pres. and Gen. Supt., Fort Worth, Tex.

GUADALUPE VALLEY.—The work of grading this new road which will run from O'Connorport to Austin, Tex., via Victoria, Yatum, Gonzales and Bastrop, is now going forward rapidly and track laying will soon begin. A branch will be built from Gonzales to San Antonio, via Seguin, Col. Uriah Lott, Victoria, Tex., may be addressed.

HAWTHORNE & BLANCHARD.—F. Weyerhaeuser, Chipewa Falls, Wis., is President, and E. B. Banks, Superior, Wis., is Chief Engineer of a proposed line of steam railway, which will be built from Hawthorne to Blanchard, 13 miles. Right of way is now being secured and contracts will be let probably this week.

IDAHO.—Grading has been completed for the Idaho R. R., 17 miles long, which will run from Cupun to Baldors. Pres. D. M. White, Lewiston, Idaho; Ch. Engr., C. A. Tush, Huntington, Ore.

LEADVILLE, SOUTH EVANS & MOSQUITO PASS.—Surveys have been completed for this road, which will be 10 miles long, running to a number of important mines. Dan. Vaughn, Leadville, Colo., may be addressed.

LEHIGH VALLEY.—Chas. E. Webster, Ch. Engr., South Bethlehem, Pa., informs us that no extensions to this road are projected at present, but a third track is being constructed from Greens Bridge, near Phillipsburg, N. J., to Muse Tunnel, 0.3 miles, of which about three miles are already completed. A number of new modern steel bridges and replacing old iron bridges. Changes in some of the shops are contemplated, but the plans have not yet been prepared.

LITTLE ROCK & MEMPHIS.—It is reported that the Choctaw, Oklahoma & Gulf R. R. propose to acquire the Little Rock & Memphis R. R. at the foreclosure sale, Oct. 25, and after reorganizing it as the Choctaw & Memphis, with \$3,500,000 capital, will extend the eastern terminus to Little Rock, Ark., 130 miles. R. Fink, Little Rock, Receiver, Gen. Mgr., Ch. Engr., and Jur. Agt.

LOUISIANA & NORTH WEST.—J. D. Beardsley, Lessee and Gen. Mgr., Gibsland, La., writes us that 36 miles of the road have been finished from Blenville, La., to Homer, La., and 36 miles more from Homer to Magnolia, Ark., are under construction. It is expected that the road will begin running next month, at which time 75½ miles of the 200 miles projected, will have been completed. Pres., J. C. Case, St. Louis, Mo.; Ch. Engr., Wm. Washburn, Gibsland, La.

MEXICAN SOUTHERN.—Jas. R. Progne, C. E., Oaxaca, Mex., states that this road will be extended from Oaxaca to Minatlan, Mex. T. A. Corry, Puebla, Mex., is resident engineer.

MISSOURI PACIFIC.—It is reported that this road has acquired the Atchison & Pike's Peak R. R., 100 miles long, comprising the Central Branch of the Union Pacific Ry., extending from Atchison to Waterville, Kan. Ch. Engr., J. W. Way, St. Louis, Mo.

NELSON & BEDLINGTON.—Contracts will be let and construction begun within a short time, according to report, on the Nelson & Bedlington Ry., which is projected from Bonner's Ferry, Idaho, to Kushkonok, B. C., 50 miles. Cyrus R. Bunn, Spokane, Wash., is interested.

NEW CUMBERLAND & PITTSBURG.—This company has been incorporated, with \$400,000 capital, by Jas. McCrea, Pres.; Jos. Wood, J. J. Brooks, John W. Renner and E. B. Taylor, all of Pittsburg, Pa., to build a steam railway, 16 miles long, between West Virginia and Phillipsburg, Pa.

NEW YORK, WYOMING & WESTERN.—Four field corps under Edw. L. Jenks are engaged in making surveys for this proposed road, which will carry nothing but coal, and will run from Scranton, Pa., to New York. It is estimated that the road will cost less than \$10,000,000, and it is hoped to complete it this year. The officers are: Pres., E. B. Sturges; V.-Pres. and Gen. Mgr., L. A. Watres; Secy., Thos. E. Jones; Treas., Thos. H. Watkins; Ch. Engr., Edw. L. Jenks.

NORFOLK & WESTERN.—J. M. Barr, Roanoke, Va., V.-Pres. and Gen. Mgr., writes us that his company does not contemplate the construction of a line from Winston to Charlotte, N. C.

PITTSBURG & LAKE ERIE.—It is reported that this company has purchased 35 acres of land from the United States Glass Co., Glassport, Pa., and will lay tracks on it for a new yard to hold 500 coal cars. It is also said that the company contemplates an additional purchase of 25 acres, on which it will build a round-house and 24 dwellings for employees. L. H. Turner, Supt. Motive Power and Equipment McKee's Rocks, Pa., may be addressed.

RACQUETTE LAKE.—A new railway is projected from Clearwater, N. Y., to Racquette Lake, N. Y., connecting with the Adirondack Ry., at the former place. The road will be about 19 miles long. Dr. W. Seward Webb, New York, President of the St. Lawrence & Adirondack R. R., is the chief promoter.

RIO GRANDE WESTERN.—It is stated that an extension to this road is projected from Ogden to the Pacific Coast and south through California, possibly into Mexico, D. C. Dodge, V.-Pres. and Gen. Mgr., Denver, Colo.

SAN ANTONIO, LLANO & NORTHERN.—Surveys for this proposed railway from San Antonio to Llano, Strawn and Thurber, have been completed from Strawn to Llano, 140 miles, and construction will begin at once on the northern end of the line. The road will connect with the Texas & Pacific Ry., at Thurber Junction, and will be in all 330 miles long. Geo. W. Angle, Gen. Mgr., San Antonio, Tex.

**SAINT JOSEPH & GRAND ISLAND.**—An extension to this road will probably be built from Severance to Highland, Kan., seven miles; \$200,000 in bonds have been voted by the latter town for this purpose. Gen. Mgr., W. P. Robinson, Jr., St. Joseph, Mo.

**SANTANDER.**—J. Ed. Buckley, of the La Compania de Ferrocarril de Santander, writes us that this company has been organized under the laws of the United States, for the purpose of building and operating a steam railway from Puerto Wilches, on the Magdalena River, Colombia, to Bucaramanga, the departmental capital, 90 miles. The route will be from the Magdalena Terminal to Puerto Wilches, 58 miles east, across the Magdalena Valley, to Puerto Santos, thence easterly up the River Libreja to las Bocas de Oro and Jeron (Pop. 9,000), Piedecuesta (Pop. 12,000), Florida (Pop. 5,000), terminating at Bucaramanga (Pop. 35,000). A branch 10 miles long will be built up the River de Oro, from las Bocas de Oro, to Rionegro (Pop. 12,000), the trading center of the coffee district, in which, it is stated, \$12,000,000 in gold has been invested; another branch, 12 or 15 miles long, will be built due north from Bucaramanga to the gold zone, La Baja y Vetas, in which there are about 200 locations and one well developed mine. The line will be narrow gage, with a maximum grade of 2½%. A preliminary survey has been run through the country by Dr. Abelardo Ramos, but American engineers will make the final location. About 90% of the right of way is provided for. The contract price between the Colombian government and the grantee, Mr. Buckley, is \$5,000,000 gold for building and equipping the road, and he receives 6% first mortgage 50-yr. gold bonds, secured by the road and its franchises. The government guarantees the interest on the bonds for 20 years, and for that purpose stipulates that 5% of the custom revenues of the nation, about \$10,000,000 gold, shall constitute said guarantee fund. The present earning capacity of the road is stated to be \$450,000 gold a year from the commerce and general transportation, and with the line completed to Bucaramanga the mines, it is expected, will furnish about \$250,000 more. This concession gives the grantee the right to operate, in conjunction with the railway, a line of steamboats on the River Magdalena and steamships, on the ocean, between Cartagena or Puerto Savinella, with an American port on the Gulf or Atlantic coast, thus enabling the company to give through bills of lading from any American city to the interior of Colombia. The company also receives 150,000 acres of hard wood, coffee and rubber lands. J. E. Buckley, 1906 Pacific Ave., Spokane, Wash.; Dr. Ramon Guerra Azuola, Colombia, S. C., Gen. Counsel for Colombia.

**SANTIAGO DE CUBA.**—D. D. Vanaken & Co. have been awarded the contract to build docks and a short railway line at Santiago de Cuba, for the United States government, to be used in the handling of troops, according to report.

**SIoux CITY, CHICAGO & BALTIMORE.**—The surveys for this proposed line have been completed to St. Louis, Mo. Ch. Engr., L. F. Wakefield; Pres., T. P. Gere, both of Sioux City, Ia.

**SKAGWAY & LAKE BENNETT.**—The narrow-gage locomotives and freight cars for this road have been shipped from Seattle, Wash., to Skagway, Alaska, according to report.

**WISCONSIN & MICHIGAN.**—It is reported that this road will be extended to Iron Mountain, Wis. Pres. and Treas., S. M. Fischer; Ch. Engr., A. M. Kinsman, both of Chicago.

### STREET AND ELECTRIC RAILWAYS.

**BERLIN, N. H.**—A hearing was to be granted July 27 by the railroad commissioners on the question of the proposed electric railway from this city to Gorham, five miles. The capital stock of the company is \$15,000, and the directors are: C. P. Day, L. J. Cote, A. M. Stahl, A. M. Clement, C. C. Gerrish, W. H. Paine and G. O. Holt.

**LAONIA, N. H.**—The Laonia St. Ry. Co. will equip its road with electricity at once, taking the place of horses, and will extend the line over the new road to The Weirs in the spring. Pres., A. G. Folsom; Secy. and Treas., Edmund Little.

**PORTSMOUTH, N. H.**—Bids are asked until Aug. 2 by the Portsmouth & Dover Electric St. Ry. Co. for the construction of its power house at Noble's Island. Right of way has all been secured and the work of laying the rails will begin this week. Mr. Thompson, of the Boston & Maine R. R., is the engineer.

**MONTPELIER, VT.**—The directors of the Montpelier St. Ry. Co. have decided to build in addition to the car barn and an office for the superintendent, work on which will be commenced at once. The tracks will be extended on Main St., from College St., making a belt line. Supt. Smith may be addressed.

**MONTPELIER, VT.**—The local correspondent for the Burlington "Free Press" states that it is quite possible, as such a favorable report has been made on the building of the electric road between this city and Warren, that action will at once be taken by the different towns along the route so that work may be commenced as soon as possible, and it is hoped that it will be begun inside of two months, as much interest is taken in the project and the people are willing to help the matter along. Montpelier will soon be a railway center.

**CLINTON, MASS.**—The Clinton, Hudson, Maynard & Concord St. Ry. Co. has been granted a franchise to build an electric road in this city which must be completed within a year.

**CONCORD, MASS.**—The voters of this place, at a meeting July 23, decided not to require electric wires to be placed underground. In order, it is said, not to keep out of the town an overhead system of electric cars for which there has been considerable agitation.

**NEW BEDFORD, MASS.**—The board of public works has granted a franchise to the New Bedford, Middleboro & Brocton St. Ry. Co. to build an electric railway in this city, application for which was noted in our issue of July 14, which prohibits its doing a local business. Abbott P. Smith is interested.

**HARTFORD, CONN.**—The Hartford St. Ry. Co. is pushing work on its new auxiliary power house and hopes to have it completed and in running order by the middle of September. Pres., E. S. Goodrich; Secy. and Treas., Danl. R. Howe.

**STAMFORD, CONN.**—The electric branch line from Stamford to New Canaan, eight miles, of the Consolidated R. R., was opened July 17. The cars of the Stamford St. R. R. are being used until the arrival of the new cars and the route is the same as that of the former street road, which is thus done away with.

**ALBANY, N. Y.**—A meeting of citizens was held July 22 to petition the Albany Ry. Co. to construct a trolley line on Second and Delaware Aves. to connect with the Pearl St. and Pine Hills lines. Henry F. Snyder, Robert Scott, Fred. Myer, August Whitman, John J. Lanahan, Ernest Decker, George Krank and Alderman Kapps, ex-officio, were appointed as a committee to report on a plan.

**BROOKLYN, N. Y.**—The railroad commissioners have granted permission to the Nassau Electric R. R. Co. of

this borough to increase its capital stock from \$6,000,000 to \$15,000,000, for the purpose of canceling its obligations on lines leased to the company.

**BUFFALO, N. Y.**—The Cross-town St. Ry. Co. has made application to extend its lines.—The board of works has approved the plans reported in our issue of July 14 to have been filed by the Buffalo Ry. Co. for the enlargement of its conduits on Niagara St. Twelve ducts of brick tile will be added to the present six, which will be scraped, at a cost of \$12,000, from Porter Ave. to the Square. H. H. Littell, Mgr., may be addressed for particulars.

**CLINTON, N. Y.**—The Sanquott Valley Electric R. R. Co. has asked the board of trustees for a franchise to build a street railway in this village. A hearing will be granted on this application Aug. 3. The company has obtained the right of way between here and New Hartford, according to report.

**FULTON, N. Y.**—O. C. Breed, civil engineer, is making surveys for a proposed line of electric railway to be built from this place to Oswego Falls, according to press reports.

**NEW YORK, N. Y.**—Permission has been given by the railroad commissioners to the Kingsbridge Ry. Co. the North End St. Ry. Co. and the Fort George & 11th Ave. R. R. Co. to build and operate electric railways on the Boulevard and Kingsbridge Road, between Manhattan St. and Yonkers. Permission is granted on condition that but one set of tracks is laid on the Boulevard, where two routes are coincident.

**SYRACUSE, N. Y.**—The Syracuse, Skaneateles & Moravia R. R. Co. has asked for a franchise to build an electric railway in this city from the corner of West Fayette and Wyoming Sts. to the city line on the west. The franchise asked for by this company in Solway, as noted in our issue of July 7, has not yet been granted, but probably will be as soon as the company has consented to the insertion of a clause requiring the road to be finished within a year. Pres., Wing T. Parker; Treas., T. W. Downing.

**TROY, N. Y.**—It is proposed to build an electric railway five miles long, to connect the Troy & New England R. R. with the Albany Ry. at its 3d St. terminus in Rensselaer. Surveys have been completed and work will soon begin, according to report.

**ATLANTIC CITY, N. J.**—The New Jersey Electric Ry. Co. has been incorporated to build an electric railway from Camden to this city. The road will be elevated in the terminal cities and the power stations will be at Port Republic and Gibbsboro. Pres., John J. Patterson, Atlantic City, N. J.

**PATERSON, N. J.**—The receivers of the Paterson Central Electric Ry. have concluded to dispose of the road as quickly as possible, according to press reports. Wm. Barbour and Charles Curie, Receivers.

**PLAINFIELD, N. J.**—Bids are asked until Aug. 4 by the board of chosen freeholders of Union county to construct and operate a street railway in North Ave., from Orchard St., Elizabeth, N. J., to Richmond St., in this city. S. Rusling Rybo, Clk., Elizabeth.

**PITTSBURG, PA.**—The car barn of the Consolidated Traction Co., located at Frankstown and Penn Aves., was completely destroyed by fire July 24, entailing a loss of about \$175,000, well covered, it is stated, by insurance. Thirty-six cars were also destroyed. Pres., C. L. Magee; Secy., Jas. A. McDevitt; Treas., Geo. I. Whitney.

**READING, PA.**—It is stated that surveys for the proposed Boyertown & Reading Electric Ry. have reached Pleasantville, about midway of the line. Branch lines from Friedensburg to Limekiln, two and a-half miles, and from Griesemerville to Amityville, four miles, are also projected.—An electric railway is projected from this city to Bernville, 13 miles, according to report. Harrison Kalbach, Reading, may be addressed for particulars.

**WILMINGTON, DEL.**—The Chester Traction Co. is pushing work on the extension of its line from Chester to this city. The grading has been completed to Esigle St. and the rail laying to Flower St. on Seventh St. Supt. MacFayden may be addressed.—Edwin P. Williamson and Nicholas Spieles have been denied an injunction to restrain the Front & Union St. Ry. Co. from entering upon their land, according to report.

**FREDERICK, MD.**—The Frederick, Thurmont & Northern Electric Ry. has been organized to build an electric railway from this city to Gettysburg, Pa., via Lewistown, Mount Airy and Emmitsburg. The road will be built as far as the latter place, 20 miles, and later will be extended to Gettysburg. Pres., L. V. Baughman; Engr., L. M. Lemley, Baltimore.

**WASHINGTON, D. C.**—It is reported that the City & Suburban R. R. Co., the new name of the allied lines of this city, has decided to issue \$1,750,000 in bonds for the purchase of the Maryland & Washington R. R., at \$700,000, and the Columbia & Maryland, at \$608,000, the balance being used to retire bonds of the Eckington & Soldiers' Home R. R., absorbed by the City & Suburban. Pres., O. T. Crosby; Secy., Dana Stevens; Treas., S. C. Cooper.

**WASHINGTON, D. C.**—A street railway company to be known as the Washington & University Railroad Company has been authorized by Congress to build a railway from the Tenleytown road to the American University, and from there to the District line. D. D. Stone may be addressed.

**FAIRMONT, W. VA.**—A survey is reported to be in progress, under the charge of C. W. Fawcett for an electric street railway from Fairview to this place.

**NEW ORLEANS, LA.**—The New Orleans City & Lake R. R. Co. has finished and begun operating its electric line to West End, according to report.

**CANTON, O.**—Dr. J. B. Shank of this city, is circulating a petition, according to report, requesting the Canton-Massillon Electric Ry. Co. to extend its line out Navarre St., from Market St. to Duher Ave., and thence north and south to connect with the south and west lines of the road. Pres. and Treas., Wm. A. Lynch.

**DAYTON, O.**—The franchise of the Dayton & Troy Electric Ry. Co. has been revoked, according to report, as the company failed to begin construction within the specified time. The Dayton Northern Ry. Co. has made application for the franchise.—A press report states that the Dayton Rapid Transit Co. has been organized to construct an electric railway from this city to Xenia. J. W. Neff, Xenia, Vice-Pres.

**DAYTON, O.**—The Dayton & Northern Ohio R. R. Co. has been incorporated, with \$10,000 capital, by Jas. Christy, Jr., H. E. Randall, W. C. Shepherd, F. J. J. Stout and C. E. Hoover, to build an electric railway from this city to Troy, via Chambersburg, Vandalla and Tippecanoe, according to report.

**EATON, O.**—It is stated that an electric railway is projected by Joel Steward and Dr. Sabin, both of Gratis, and others, from this place to Middletown, via Gratis.

**ANDERSON, IND.**—The Union Traction Co., known as the Indiana Gas Belt Electric Ry., is reported to have purchased the Anderson Electric St. Ry. for \$150,000 and an equal amount in notes. It is also stated that the plant of

the Marlon Electric Ry. will be purchased, including the line as far south as Summitville, as will be connected to the Anderson St. Ry., making a line 32 miles long, passing through Linwood, Alexandria, Jonesboro and Fairmount in addition to the other places mentioned. Pres., Treas. and Gen. Mgr., C. L. Henry.

**BENTON HARBOR, MICH.**—The right of way for the new electric railway from South Bend, Ind., to this place has been secured, according to report, and a water power will be developed and repair shop built at Berrien Springs. A dam 20 ft. high and 1,200 ft. long, capable of developing 8,000 to 9,000 HP. is proposed. John A. Russell, Detroit, is interested.

**KALAMAZOO, MICH.**—An electric railway is projected from this city to Battle Creek, according to report. It is said that Norton & Tunstall, 34 Wall St., New York, are the financial agents. Ch. Engr., Geo. S. Shafter, Philadelphia, Pa.

**ALTON, ILL.**—The Alton Ry. & Illuminating Co. intends extending its line from 6th and Alby Sts. to East Alton, according to report, and will also equip its Middletown line this fall with 70-lb. rails. Pres., Treas. and Gen. Mgr., J. F. Porter.

**CHICAGO, ILL.**—The Northern Electric Ry. Co. has asked the county board for a 50-year franchise to build an extension to its electric railway system from the western city limits to River Grove, 10 miles.—The Chicago & Fox Lake Electrical R. R. Co. has been incorporated by John W. Greene, Chas. E. Soule, Jr., Wm. A. Kawson, Stewart Spaulding, Frank N. Willis and F. W. Pringle, all of Chicago, with \$20,000 capital, to build an electric railway from Lake county, through McHenry county to the Wisconsin state line.

**ROCKFORD, ILL.**—The final survey for the Rock River Electric Ry., which will be built from this place to Oregon, Ill., via Byron, has been begun, according to report. It is hoped to have the road ready for operation this year; it will be 25 miles long. A water power will be secured at Oregon, where car barns and other buildings will be erected. Nagle, Holcomb & Co., Chicago, are said to have submitted a bid for the construction of the road, which is under consideration.

**CENTERVILLE, IA.**—A company is now being organized to build an electric railway between Iconium and Moravia, with extensions from the former place to Griffinsville and Confidence, and from Moravia to this place, making a system 22 miles long. It is said that the road will be operated by a storage battery system, and freight will also be carried.

**KANSAS CITY, MO.**—A resolution has been passed by the city council requesting the street railway companies to equip their cars with the latest and best forms of fenders. Alderman J. E. Jewell introduced the resolution.—Permission has been granted the Metropolitan St. Ry. Co. to widen the gage of its tracks to 4 ft. 8½ in., the standard of all the other lines in the city. The franchise of this company called for a gage under four feet. C. F. Morse, Pres. and Treas.

**ST. LOUIS, MO.**—An electric railway is projected from Bobringsville to connect with the Southern Electric Ry., over a new 60-ft. road, which will be constructed from McGinnis Ave. to Union Road, one mile. The Southern Electric Ry. Co. is making extensive improvements to its power plant, costing about \$130,000. A new 1,500-HP. engine, a 1,500-HP. dynamo and new Heine boilers will be installed, according to report. Pres., C. H. Spencer.

**DALLAS, TEX.**—The Dallas Consolidated Electric St. Ry. Co. has filed a mortgage for \$800,000 to secure bonds which will issue for the purpose of making extensions to its system.—J. P. Holland and Wm. H. McGrath, Vice-Pres. and Gen. Mgr., of the Dallas Electric Co., are reported to be interested in a system of electric railways which it is proposed to build in this state.

**SPOKANE, WASH.**—The United States Marble Co., owning quarries nine miles from Valley on the Spokane Falls & Northern Ry., has decided to build an electric railway to transport the material to the latter road. The officers of the company are: Pres., C. S. Edwards; Vice-Pres., John King; Secy., C. E. Mitchell; Treas., H. B. Allen.

**REDLANDS, CAL.**—Steps are being taken toward the transforming of the Redlands St. Ry., now operated by horses, into an electric road, and \$50,000 in bonds will be issued for the purpose. J. H. Fisher, Gen. Mgr.

**BRANTFORD, ONT.**—R. L. Middleton, Ch. Engr., writes us that the construction of the Brantford & Woodstock Ry. will begin Sept. 15 and it is hoped to complete it by Nov. 30. There are 28 miles of single track connecting with the Canadian Pacific Ry. north of the town of Woodstock, and with the Toronto, Hamilton & Buffalo Ry., near the Brantford depot. The road will be equipped for both electricity and steam, and will be laid with 90-lb. steel T-rails. The only work to be let will be two miles of pile-driving along the river, a 500-ft. span steel cantilever bridge and three small steel bridges, all near the Brantford end of the line. The work in the Grand River at Brantford will be of an interesting character, owing to the treacherous nature of the river and its banks and the protection against the spring floods which devastate this part of the country. Mr. Middleton will be pleased to hear from any one who desires to furnish supplies.

**PARIS, ONT.**—G. H. Carroll, of this place, is reported to be projecting an electric railway from Paris to Afr. connecting with the Canadian Pacific Ry., at the latter place. It will be operated by water power, for which purpose a dam will be built near here.

**NELSON, B. C.**—C. S. Drummond, representing the British Electric Traction Co., London, England, is said to have applied to the city council for a 30-year franchise to build an electric street railway in this city.

**PARIS, FRANCE.**—The Walker Co., Cleveland, O., is said to have received an order from this city for the equipment for 500 electric street railway cars. This includes 1,000 motors, 1,000 controllers, 500 trolleys and other details. The order will amount to over \$500,000.

**MILAN, ITALY.**—La Societa Nazionale per Industrie ed Imprese Electriche has been organized with \$1,000,000 capital, in this city, to undertake the construction of electric railways and other electrical projects, according to report.

**ROME, ITALY.**—An electric street railway is reported to be projected in this city to run to Como and Lecco, 30 miles. Prices will be asked for about Sept. 15 for the necessary materials.

**HONOLULU, HAWAII.**—The Buffalo Ry. Co., Buffalo, N. Y., is reported to be interested in obtaining a franchise for an electric railway in this city.

### ELECTRIC LIGHT AND POWER.

**SANFORD, ME.**—Press reports state that the Sanford Mills Co. is erecting a stone dam at the old falls of the Mousam River. The dam will be 450 ft. long, and in places 32 ft. deep. Its entire length rests on a solid ledge foundation. It is expected that the work will be completed Sept. 1. Work on the power station was begun this week. When completed, 2,500 HP. will be generated, part of which will be transmitted to the Sanford Mills

8 miles distant, and part utilized by the Sanford & Cape Porpoise R. R. This electric road will pass within a half mile of the falls, with which it will be connected by a spur track.

**WESTBROOK, ME.**—Press reports state that the Westbrook Electric Light & Power Co. has made final arrangements for enlarging its power station at Lower Falls, four 48-in. turbine water wheels and a 300-HP. two-phase Westinghouse generator have already been ordered. Supt. and Mgr., E. B. Newcomb; Engr., A. E. Winchester, South Norwalk, Conn.

**SOMERSWORTH, N. H.**—Mark A. Keains, Cy. Clk., writes us that this city will not establish a plant this year.

**BRATTLEBORO, VT.**—No information can yet be given with regard to the power plant at this place. Engrs., Butts & Crosby, 49 Pearl St., Hartford, Conn.

**CONCORD, MASS.**—Bids are asked until Aug. 5 for furnishing and installing two 120-HP. high-speed compound condensing engines, as stated in our advertising columns. The bids for boilers, heaters, etc., will be opened Aug. 1, as noted in these columns July 14. Stone & Webster, Engrs., 4 Post Office Square, Boston; Richard F. Barrett, Chm. Light Board.

**DANVERS, MASS.**—This place has voted to appropriate \$5,500 for increasing the facilities of the electric light plant. Supt., T. J. Lynch.

**BINGHAMTON, N. Y.**—We are informed that the following bids were received July 19 for furnishing lighting fixtures: B. W. Mosher, Cy. Clk.:

D. J. Malone, Binghamton (accepted).....	\$2,850
Binghamton Electric Construction Co., Binghamton.....	2,186
Batecock Hardware Co., Binghamton.....	2,064
Gajard & Gitapence, Binghamton.....	2,300
Cassidy & Son Mfg. Co., New York.....	1,895
Thos. P. Nightingale, Utica, N. Y.....	1,550

**EAST SYRACUSE, N. Y.**—M. C. Mulford is reported to have purchased the plant recently owned by Mrs. Knapp of Syracuse. Mr. Mulford has asked for a franchise to extend the lines and for permission to enlarge the plant.

**SYRACUSE, N. Y.**—Bids are asked until July 28 for furnishing and constructing plants for three school buildings. P. D. Cooney, Clk. Bd. Education.

**CLINTON, N. J.**—The electric light and steam power plant of the Clinton Electric Co. is to be sold at public auction Aug. 5. The advertisement describing this plant and announcing the sale is published on page xviii. of this paper.

**WOODSTOWN, N. J.**—It is reported that residents of this place are considering the question of organizing an electric light company.

**DUQUESNE, PA.**—Estimates, etc., for a municipal plant have been prepared by W. S. Taylor, Pittsburg. It is proposed to operate the plant in connection with the water-works.

**LANSDALE, PA.**—Bids are asked until Aug. 2 for furnishing and constructing a plant, to cost about \$20,000. Clk., D. S. Schultz, Pres., L. M. Landis.

**PHILADELPHIA, PA.**—The Germantown Electric Light Co. has been granted permission to erect poles, wires, etc., for its line in the 22d Ward.

**COLUMBUS, GA.**—G. Gunby Jordan, Treas. Columbus Power Co., writes us that bids will soon be asked for constructing the proposed plant, estimated cost, \$200,000. The contract has already been let to the Holyoke Machine Co., Worcester, Mass., for furnishing the water-wheels and iron work. The plant will develop 10,000 HP. Des. Engr., W. C. Whitner, Columbus.

**CULLMAN, ALA.**—Jas. E. Clark, owner of the franchise of the Cullman Water & Lighting Co., writes us that the company is being organized. Bids for furnishing and constructing the plant will be asked about Sept. 1. The plant will have a capacity for 21,200 to 2,000-c. p. arc and 1,000 10-c. p. incandescent lights; estimated cost, \$15,000.

**NEW ORLEANS, LA.**—Councilman Story has introduced an ordinance authorizing the council to receive bids for constructing a plant with a capacity of 2,000 arc, 2,000 c. p. and 5,000 10-c. p. incandescent lights. The plant is to be in operation Dec. 21, 1902, the date of the expiration of the contract with the Edison Lighting Co.

**CANAL DOVER, O.**—Leiser & Bowers are reported to have decided to build a light and power plant at their mills. It is said that if a sufficient number of subscribers can be secured light will be supplied to the houses and stores of the town.

**MCARTHUR, O.**—Paris Horton, Pres. Bd. Trustees, writes us that bids will be wanted in about 30 days for furnishing and constructing a plant, to cost about \$55,000. It will have a capacity for 20,000-c. p. arc and a large number of incandescent lights. The money has been appropriated, and is now in the hands of the trustees. Bids will be asked for furnishing machinery for a complete modern plant. Engrs., E. P. Roberts & Co., Cleveland, O.

**MINERAL POINT, O.**—Bids are asked until Aug. 22 for constructing an electric light and water-works plant, as stated in our advertising columns. Paul Voorhees, Engr., 1210 Guaranty Bldg., Buffalo; T. H. Edwards, Village Clk.

**MINSTER, O.**—Bids are asked until Aug. 16 for furnishing the materials and for constructing a plant. There will be required an 80-HP. engine, two 54-in. x 14-ft. boilers, a feed pump, three 40-K-W. dynamos, etc. Consult Engr., G. L. McKibben, Van Wert, O.; Clk., August Schunck.

**BROWNSTOWN, IND.**—G. B. Epperson, Anderson, Ind., has asked for a 20-year electric light franchise; estimated cost, \$25,000.

**EVANSVILLE, IND.**—The committee has recommended that steps be taken at once to consider the advisability of building a city plant, to cost about \$70,000. Mayor Akin may be addressed.

**INDIANAPOLIS, IND.**—Bids are asked by the board of trustees of the Indiana Institution for the Education of the Blind until Aug. 2 for furnishing and constructing a plant.

**EATON RAPIDS, MICH.**—A. R. Welch, Chelsea, Mich., has been granted a 5-year light franchise. It is said that 30 arc lights will be put in at once.

**GRAND RAPIDS, MICH.**—Nagle & Ball, New York Mutual Life Bldg., Chicago, Ill., have been directed by the council to prepare new plans for the proposed plant, after which new bids will be asked.

**KALAMAZOO, MICH.**—It is stated that W. A. Foote has purchased a three-fourths interest in the Kalamazoo Electric Co. from J. K. Wagner, Bush & Tate and B. A. Bush. The capital stock is \$100,000. The plant will be increased and the service improved. Pres., W. A. Foote, Jackson, Mich.; Secy., S. S. Hulbert, Battle Creek; Treas., James B. Foote, Jackson. W. A. Foote is now interested in the Battle Creek, Jackson and Albion electric lighting plants. J. B. Foote writes us that no new work is contemplated.

**YALE, MICH.**—Bids are asked until Aug. 2 for furnishing and constructing a plant, as advertised in Engineering News, July 7. (Postponement from July 25.) E. F. Fead, Village Clk.

**JOLIET, ILL.**—The drainage board, Chicago, has let the contract for the power dam at Joliet, section No. 18, to Gahan & Byrne, Chicago, at \$161,791. This contract includes the replacing of dam No. 1 at the present site for \$17,751. The proposition of the canal commissioners is to have the dam removed 250 ft. further down the stream, in order to create more power.

**DES MOINES, IA.**—Local papers state as follows: A new plant will be erected at the dam, foot of Center St., at once by the Des Moines Edison Electric Light Co., which owns the water-power plant by purchase from the Fort Wayne Co. The Edison company will put up a structure 70 x 52 ft., costing about \$6,500. It will be equipped with machinery made by the General Electric Co., Schenectady, N. Y. The entire plant will cost from \$40,000 to \$50,000. The plant is designed for water power. Three wheels which have been in the river since the mill burned six years ago will be utilized, but two new wheels, larger and better, will be put in also. The contract for building has been let to Chas. Weitz & Sons, of this city. One section of the building, 40 x 52 ft., will be erected first and equipped, then the other section. The present steam plant will be moved to the building at First and Chestnut Sts. Mgr., R. H. Fraser.

**FOSTON, MINN.**—Fairbanks, Morse & Co., St. Paul, have been awarded the contract for constructing a plant and water-works, at \$15,500.

**AUBURN, NEB.**—C. S. Hull, Cy. Clk., writes us that O. H. Kilburne will put in the proposed plant. It is probable that he has already bought the machinery.

**ABILENE, KAN.**—Jacob Brown is reported to have applied for permission to operate a plant for igniting the town, the power to be secured from his mills, two miles south of the town.

**TISHOMINGO, IND. TER.**—Press reports state that the company that has proposed a dam at Tishomingo Creek two miles above Tishomingo has the estimates made on putting in a dam to furnish about 3,000 HP. It is likely that work will be begun soon. The dam proposed will furnish enough power for all kinds of mining machinery, a small electric light plant in the future if the town needs it, and a small system of water-works.

**IDAHO FALLS, IDAHO.**—Geo. Chapin, Chm., writes us that the question of issuing bonds for the purchase of the plant and water-works will be voted upon Aug. 9. Nothing further will be done until the bonds are sold.

**LOS ANGELES, CAL.**—The contract for street lighting has been awarded to the Los Angeles Lighting Co., at \$6.50 a lamp a month. This is the bid which contemplates the maintenance of the tall mast system with 640 lamps lighting the city, each lamp to be of 2,000 c. p. This will cost the city \$4,100 a month—an increase over last year's monthly payments of \$318. For this price the city will get 180 more lamps than it has at present. Under the new contract, which goes into effect Jan. 1, the city will have lights all night and every night, where now it has but a half night service and no lights on moonlight nights.

**BARRIE, ONT.**—The question of issuing \$35,000 in bonds for a plant of 65 arc lights will be voted upon Aug. 15.

**LONDON, ONT.**—Bids are asked until Aug. 3 for furnishing and constructing a plant, as stated in our advertising columns July 21. Samuel Stevely, Acting Chm.; Ormsby Graydon, Cy. Engr.

**NIAGARA FALLS, ONT.**—It is reported that J. G. White & Co., 29 Broadway, New York, and Baltimore, Md., have been awarded the contract to build the proposed power plant and station on the Canadian side of the Falls.

**SEBASTOPOLE, RUSSIA.**—Press reports state that a company was recently formed at Ougree, Belgium, to be known as La Societe de Traction et d'Electricite de Sebastopol. The new company has a capital of \$100,000, and will acquire and work the central electric lighting station and the system of electric tramway in Sebastopol, South Russia. The company is to spend \$300,000 in about three months, making purchases of machinery, track material and equipment. The parties sending the advices add that there is plenty of time for American manufacturers to put in their bids.

**SHANGHAI CHINA.**—Bids are asked by F. S. Blackall, of Blackall & Baldwin, 39 and 41 Cortlandt St., New York, until Aug. 10 for furnishing and constructing a plant for this municipality, to cost about \$40,000. There will be required two 100-K-W. alternators, switchboard, water-tube boilers, etc.

**NEW COMPANIES.**—Clear Creek Power Co., Denver, Colo.; \$1,000,000; to generate power for lighting and other purposes in Clear Creek country; A. R. Specht, Boston; F. Rockefeller, M. A. Bradley, J. M. Henderson, D. R. Taylor, H. P. Malone and E. K. Tillson, Cleveland. Union Electric Co., 106 Market St., Camden, N. J.; \$6,000, with full amount paid in; H. Geo. Lewis, Oak Lane, Pa.; Chas. J. Hart, Sharon Hill, Pa.; H. G. Kepner, Philadelphia; S. H. Richards, Bridgeport, N. J.

**Kinderhook Power & Light Co., Kinderhook, N. Y.;** \$50,000; to furnish light, heat and power by electricity to Rensselaer, Troy, North Greenbush, East Greenbush, Schodack, Nassau, Bath, Castleton and Nassau; James Purcell, Valatie, N. Y.; James R. Hughes, James Hogan, John Ritz, Stuyvesant Falls, N. Y.; William D. Barnes, Brainard, Rensselaer county, N. Y.

BRIDGES.

**BRATTLEBORO, VT.**—Bids are asked until Aug. 6 for the purchase of \$15,000 of 4% bridge bonds. Wm. H. Vinton, Chm. Bd. Selectmen.

**NORTHFIELD, MASS.**—Bids are asked until July 30 for constructing a bridge over the Connecticut River. Engrs., Edward S. Shaw, 12 Pearl St., Boston, and Clapp & Abercrombie, Ponds Block, Greenfield; Lyman A. Crafts, Chm. Comrs., Greenfield.

**SALEM, MASS.**—Bids are asked until Aug. 8 for reconstructing and widening the Forest River bridge. Engrs., Fulham & Riker, 201 Essex St.; E. B. Bishop, Chm. County Comrs.

**BROOKLYN, N. Y.**—Bids are asked until Aug. 4 for furnishing material and constructing the substructure for the bridge across Newtown Creek, from Grand St. to Grant Ave. John L. Shea, Comr., Stewart Bldg., New York.

**JERSEY CITY, N. J.**—Bids are asked until Aug. 4 for the purchase of \$26,000 of 4% bridge bonds. E. W. Woolley, Clk. Bd. Freeholders.

**NEW BRUNSWICK, N. J.**—Bids are asked until Aug. 3 for the repair of two bridges. R. J. Dougherty, County Engr., 113 Albany St.

**PATERSON, N. J.**—Bids are asked until Aug. 2 for constructing two iron bridges and abutments in Pompton township and for an iron beam bridge in West Milford township. Geo. W. Botlyle, Clk. Bd. Freeholders.

**JERSEY CITY, N. J.**—The Jersey City Electric Light Co. has petitioned the street and water commissioners for permission to construct a trestle from the Pennsylvania Ry. to the Railroad Ave. plant.—The following local bids were received July 7 for constructing a steel viaduct over the Erie Ry. and the West Shore Ry. tracks. N. W. Woolley, Clk. Bd. Freeholders:

	With 146-ft. span.	Without through span.
McGuire & Hall, 26 Cortlandt St., N. Y.*.....	\$62,025	\$49,755
Michael J. Curley.....	54,338	16,000
M. T. Connelly.....	64,000	52,000
Sandford & Stillman.....	67,552	54,681
Fagin Iron Works.....	69,000	57,000
Palisade Construction Co.....	64,030	55,900

\*Accepted.

**BUTLER, PA.**—Bids are asked until Aug. 2 for masonry work on one bridge. H. E. Colter, Secy.

**CHAMBERSBURG, PA.**—A committee consisting of Messrs. Hoeffeditz, Henderson and Gilbert have been appointed to arrange with the county commissioners for the construction of a bridge over Falling Spring at Kennedy Ave.

**COCALICO, PA.**—The county commissioners have decided to build a bridge over the Cocalico Creek at this place. The structure is to be of steel, 75 ft. in length and 16 ft. wide.

**CONNELLSVILLE, PA.**—The Pittsburg Bridge Co., Pittsburg, has been awarded a contract at \$60,000 for constructing a new bridge over the Youghiogheny River, for the Youghiogheny Bridge Co.

**MOSGROVE, PA.**—A contract has been awarded to the Keystone Bridge Co., Pittsburg, for the construction of a \$150,000 bridge over the Allegheny River, for the Buffalo, Rochester & Pittsburg R. R. Co. and the Allegheny & Western R. R. Co. The structure will be 1,600 ft. long, 25 ft. wide and contain 2,000 tons of steel. E. K. Morse, Engr., Pittsburg.

**PITTSBURG, PA.**—John Brunner, Cy. Engr., writes us that plans are nearly ready for the reconstruction of the South 10th St. bridge, to be 40 ft. wide, having two spans of 520 ft. and 375 ft., with two new piers. As no money has yet been appropriated the work will probably not be done this year. E. M. Bigelow, Dir. Dept. Pub. Wks.

**WILKES-BARRE, PA.**—Reports state that the county commissioners are in favor of a proposition to purchase the eight toll bridges, crossing the Susquehanna River, at a cost of about \$400,000.

**JACKSON, MISS.**—Bids are asked until Aug. 9 for certain bridge construction, as described in our issue of July 14. (Postponement from Aug. 2.) Walter G. Kirkpatrick, Cy. Engr.

**SPRINGFIELD, TENN.**—Bids are asked until Aug. 5 for constructing a stone arch bridge across Black Branch. J. W. Bell, Chm. Com.

**CANTON, O.**—Reports state that a 100-ft. truss bridge will be constructed on South Cherry St. Wm. A. Reed, County Audr.

**CLEVELAND, O.**—Bids are asked until Aug. 19 for constructing the Willet St. viaduct substructure and masonry abutments. Geo. H. Warden, Dir. Pub. Wks.

**CINCINNATI, O.**—Bids are asked until Aug. 20 for constructing a bridge on the Riddle Road, in Springfield township. E. L. Lewis, County Audr.

**HAMILTON, O.**—L. A. Dillon, Engr., has submitted plans to the county commissioners for the proposed 400-ft. bridge over the Miami River at Wood St.; estimated cost, \$79,000.

**HAMILTON, O.**—The Toledo Bridge Co., Toledo, O., has been awarded a contract by the county commissioners at \$8,450 for constructing a hoist bridge.

**LEBANON, O.**—Bids are asked until Aug. 22 for constructing a steel substructure on Caesar's Creek, according to reports. P. O. Monfort, Engr.

**NORWALK, O.**—Jno. Laylin, County Surv., informs us that the following bids were received July 16 for constructing a steel bridge; length, 105 ft.; width, 16 ft.; capacity, 200 lbs. per sq. ft.:

Iron Substructure Co., Columbus, O.....	\$1,500
Variety Iron Works, Cleveland.....	1,575
King Bridge Co., Cleveland.....	1,498
Canton Bridge Co., Canton.....	1,604
Toledo Bridge Co., Toledo.....	*1,710
W. H. Smith, Norwalk.....	**1,706
Penn Bridge Co., Beaver Falls, Pa.....	1,780
Wrought Iron Bridge Co., Canton, O.....	\$1,197 to 1,597
Brackett Bridge Co., Cincinnati.....	1,289
Massillon Bridge Co., Massillon, O.....	1,500
Virginia Bridge Co., Roanoke, Va.....	1,500
Mt. Vernon Bridge Works, Mt. Vernon.....	\$1,250 and 1,550
Milwaukee Bridge & Iron Works, Milwaukee, Wis.....	2,029

\*Low truss, \$1,595; awarded contract for an eight-panel bridge. \*\*Low truss, \$1,570.

**SHELBY, O.**—The county commissioners have decided to construct a new stone or iron bridge to cost about \$5,000. Mayor Green or Engineer Weddell may be addressed.

**WOODSFIELD, O.**—Bids are asked until July 29 for constructing a superstructure, 130 ft. long and 16 ft. wide, having a capacity of 125 lbs. per sq. ft. W. T. Wood, County Audr.

**YOUNGSTOWN, O.**—The question of constructing a viaduct to connect with Steelton, at an estimated cost of \$75,000, is being considered.

**HART, MICH.**—It has been voted to construct a new bridge at a cost of \$6,000.

**GRAND DETOUR, ILL.**—It is reported that the county commissioners have voted to appropriate \$20,000 toward the construction of a bridge over Rock River; estimated cost, \$40,000.

**URBANA, ILL.**—Bids are asked until Aug. 4 for constructing a highway bridge on masonry. Ira O. Baker, Engr., Champaign.

**ALMA, NEB.**—Bids are asked until Aug. 9 for constructing nine iron bridges. S. L. Roberts, County Clk.

**ATCHISON, KAN.**—Geo. S. Morrison, Engr., Chicago, Ill., has prepared plans for the reconstruction of the bridge over the Missouri River, to cost about \$60,000, for the Chicago & Eastern Bridge Co., according to reports. W. F. Guthrie, W. W. Guthrie and N. D. Todd, Atchison, may be addressed.

**OREGON, MO.**—Bids are asked until Aug. 2 for the construction and repair of certain bridges. C. G. Landon, County Comr.

**ST. JOSEPH, MO.**—The Chicago & Great Western Ry. Co. has offered to construct a \$20,000 viaduct over the tracks at Grand Ave., in North St. Joseph.

**DALLAS, TEX.**—We are informed that the following local bids were received by the county commissioners July 19 for constructing a 150-ft. iron bridge on the Oak Cliff

pike road. C. E. Brown, Engr.: C. R. Lane, \$1,647; J. T. Carter, \$1,650; Topscott, \$1,800; C. W. Olcott, 182 First Ave. (accepted), \$1,900; Bryant & Marshall, \$1,975; Brown & Dohney, \$2,000; J. W. Fuller, \$2,100; Geo. E. King Bridge Co., Des Moines, Ia., \$2,400.

HEARNE, TEX.—An effort has been made by the citizens to have a new bridge built across the Brazos River at Port Sullivan, but the officials do not feel able to do more than have the old bridge repaired.

GOLDENDALE, WASH.—Bids are asked by the county commissioners until Aug. 4 for constructing a bridge across the creek.

AIRBUCKLE, CAL.—Bids are asked by the county supervisors until Aug. 3 for constructing four bridges.

AUBURN, CAL.—Bids are asked until Aug. 2 for constructing a cable bridge across a fork of the American River. Wm. I. May, County Clk.

MARTINEZ, CAL.—Bids are asked until Aug. 1 for constructing an 85-ft. bridge over San Pablo Creek. F. L. Glass, County Clk.

UKIAH, CAL.—Bids are asked until July 30 for repairing two bridges. C. P. Smith, Chn. Bd. Supervisors.

BRANTFORD, ONT.—Several bridges will be required on the line of the new Brantford & Woodstock Ry., on which work will be commenced in September. The work will include a 500-ft. cantilever and three smaller structures. R. L. Middleton, Cy. Engr., Brantford.

**BUILDINGS.**

BOSTON, MASS.—Reports state that the following local bids were received July 14 for constructing a high school building. Thos. S. Stranger, Chn. Com.:

Table with 2 columns: Bidder Name and Amount. Includes W. H. Keyes & Co., 17 Otis St., Boston, \$250,943; Kefteno Driscoll, 17 Otis St., \$231,952; Conery & Wentworth, 22 Pemberton Square, \$237,500; John L. Jacobs & Son, Herald Bldg., \$237,400; Norcross Bros., 1143 Tremont Bldg., \$237,283; James Fagan, 27 School St., \$228,389; Meade, Mason & Co., 13 Exchange St., \$228,950; James A. Colson, 90 Monumental St., \$207,905.

SPRINGFIELD, MASS.—Bids are asked until Aug. 1 for erecting and plumbing the Alden St. school building. Arch. F. R. Richmond, Masonic Bldg., Springfield; Chas. E. Brown, Chn. Com.

LOCKPORT, N. Y.—Bids are asked until Aug. 4 for erecting a hospital at the Niagara County Farm. Fred H. Krull, Clk. Bd. Supervisors.

MECHANICSVILLE, N. Y.—An extension of 40 x 70 ft. will be built on to the Methodist Episcopal Church.

NEW YORK, N. Y.—Reports state that J. D. Rockefeller will give \$10,000 toward the construction of a Barnard College building, to cost \$100,000. Plans have been prepared by F. R. Comstock, Arch., for the erection of a church, on Fifth Ave. and 68th St., to cost about \$100,000. Mrs. Laura Lathrop and Rev. Dr. Geo. Tompkins are interested. Plans have been filed by Linton B. Matthews, 59 West 125th St., for two 5-story brick flat buildings on 3d Ave., near 173d St.; cost \$50,000. Archa., Neville & Bagge, 217 West 125th St.; by Hubert S. S. Harde, 648 Madison Ave., for a 6-story brick flat building, on 80th St., near West End Ave., to cost \$75,000. Townsend & Harde, Arch.; by Francis J. Schnugg, 1 East 14th St., for a 6-story dwelling on 158th St. and Boulevard Lafayette, to cost \$90,000. Louis Entzer, Arch., 78 East 96th St.; by John Westervelt, 43 East 19th St., for an 8-story brick and stone flat building on 80th St., near West End Ave., to cost \$300,000. Arch., Henry Anderson, 1180 Broadway; by William Hall and T. M. Hall, 31 East 74th St., for three 5-story dwellings on Riverside Drive, near 83rd St., to cost \$90,000. A. M. Welch, Arch., 503 5th Ave.; by the Harrison Realty Co., Harrison, N. Y., for an 8-story brick office building at 90 Prince St., to cost \$90,000. Neville & Bagge, Archa., 217 West 125th St.; by Lowen Harde and S. Harde, 307 West 85th St., for a 7-story brick flat building, 102 x 51 ft., on 80th St. and West End Ave., to cost \$175,000. Archa., Townsend & Harde, 29 East 19th St.

NEW YORK, N. Y.—Plans have been filed by Patrick H. Lynch, Arch., 642 West 128th St., for six 4-story brick dwellings, 16 x 47 ft., to cost \$72,000, on 141st St. and Hamilton Place; S. Guidera, 26 East 118th St., for three 5-story brick tenements, on 188th St. and Audubon Ave., to cost \$54,000. Arch., J. West Wagner, 407 Nostrand Ave., Brooklyn; by J. C. Lyon, 67 East 127th St., for eight 5-story brick and stone dwellings, on 74th St., near Park Ave., to cost \$178,000. Archa., Buckman & Deisler.

NORWICH, N. Y.—An offer has been made to construct a jail building, at a cost of \$14,000.

SYRACUSE, N. Y.—C. T. Snavlin will erect a \$65,000 dwelling on South Crouse Ave.

ROCHESTER, N. Y.—Plans have been filed by John D. Lynn and J. J. Schubert for a theater building, 70 x 165 ft., to cost \$80,000. Arch., J. Foster Warner.

TROY, N. Y.—The following bids have been received for masonry work in the construction of a school building at Third and Adams Sts.: William Ellis, \$29,300; Charles Crowley, \$28,955; James Dollard, \$29,700; Timothy Casey, \$27,995; William Behan, \$31,042; James H. Morrissey, \$29,500; Charles P. Boland, \$28,154.

PATERSON, N. J.—Bids are asked until Aug. 1 for the purchase of \$100,000 of 4% court boue bonds. E. G. Edwards, Chn. Com., Paterson Savings Institution Bldg.

PITTSBURG, PA.—Plans have been accepted for the erection of a Roman Catholic church, at First Ave. and Kennedy St., to cost \$150,000.

WILMINGTON, DEL.—Bids are asked until Aug. 8 for furnishing plans and specifications for the erection of a high school building on Delaware Ave. Wm. Turner, Chn. Com.

BALTIMORE, MD.—Bids are asked until Aug. 25 for the construction of the Wade Point lighthouse, N. C., as stated in our advertising columns. Lt.-Col. W. A. Jones, U. S. Lighthouse Engr., Baltimore.

DANVILLE, VA.—Bids will be asked about Sept. 1 for erecting the new Masonic Temple, to cost about \$50,000. Arch., Frank P. Milburn, Charlotte, N. C.

WALHALLA, N. C.—Reports state that plans have been prepared by C. M. Guest, Arch., Anderson, for a bank building, to be erected for J. D. Verner.

ATLANTA, GA.—Bids are asked until July 29 for erecting a hospital building and stewards' quarters, at Fort Morgan, Ala. John Simpson, Chief Q. M., Atlanta.

JACKSON, MISS.—Bids are asked by the board of aldermen until Aug. 2 for constructing a 2-story brick addition to the school building at Oakley and Bloom Sts.

MEMPHIS, TENN.—A. J. Welch and J. H. Sullivan, Memphis, will present a petition to the railway companies for a new station, to cost about \$170,000.

NASHVILLE, TENN.—Bids were opened at the office of the Louisville & Nashville Ry. Co., at this place, on July 25, for the erection of a new union station, to cost about \$1,000,000.

NEWPORT, KY.—A fire in this place July 20 destroyed a saw mill and 17 dwellings, at a reported loss of about \$100,000.

BELLEFONTAINE, O.—The fire committee has recommended an issue of \$10,000 in bonds to erect a new 2-story brick building, at Columbus and Mad River Sts.

COLUMBUS, O.—Plans have been prepared by Yost & Packard, Y. M. C. A. Bldg., for a new Methodist Episcopal Church, to cost \$30,000.

COLUMBUS, O.—Bids are asked until Aug. 23 for furnishing the material and for erecting a school building for the Ohio Institute for the Education of the Deaf and Dumb. Archa., Richards & McCarty, Columbus; J. W. Jones, Secy.

TOLEDO, O.—Bids are asked until Aug. 3 for furnishing the material and constructing a jail building. Arch., David L. Stive; Wm. M. Godfrey, County Auditor.

LOGANSPORT, IND.—Bids are asked until Aug. 1 for constructing an 8-room school building. Arch., J. F. Alexander & Son, Lafayette; James D. McNitt, Trustee.

CHICAGO, ILL.—Contracts have been let by Richard E. Schmidt for the 10-story business block which Montgomery, Ward & Co. will erect at Michigan Ave. and Madison St., at a cost of \$200,000; by D. H. Burnham & Co., for the fireproof office building for the Union Trust Co., at Pittsburg, to cost \$150,000, and by Frost & Granger for a passenger station at Green Bay, Wis., for the Chicago & Northwestern R. R., to cost \$15,000.

DANVILLE, ILL.—Bids are asked until Aug. 1 for furnishing the material and for installing a steam heating system at the National Home for Disabled Volunteer Soldiers. J. B. Birmingham, Treas., Danville; W. B. Franklin, Pres. Bd. Mgrs., Hartford, Conn.

HEYWORTH, ILL.—Bids are asked until Aug. 1 for building a brick school house. Arch., P. O. Moratz, 103 East Front St., Bloomington, Ill.; Secy., W. Deiano.

OSHKOSH, WIS.—The Chicago & Northwestern Ry. Co. will construct a freight station, 400 ft. long, according to reports.

ST. PAUL, MINN.—Plans are being prepared by Bruchner & Jacobsen, Archa., St. Paul, for the Norwegian Lutheran Seminary building, to be erected at Hamline, to cost \$50,000.

ST. PAUL, MINN.—M. J. O'Neil and August Wolentine have applied for permission to erect a 4-story apartment building, to cost about \$60,000.

ST. JAMES, MINN.—J. B. Nelson & Co., Mankato, Minn., are reported to have been awarded the contract, at \$25,408, for constructing the Park Hotel for M. K. Armstrong. Arch., Frank Thayer, Mankato.

ZUMBROTA, MINN.—Bids are asked until Aug. 5 for constructing a 3-story hospital building for the Lutheran Hospital Association. Arch., C. L. Grover; Chn. Com., R. V. Lund.

CRESTON, IA.—The Chicago, Burlington & Quincy Ry. Co. is about to commence the construction of a new station which will cost \$50,000. W. C. Brown, Gen. Mgr., Chicago.

DES MOINES, IA.—Lafayette Higgins, Engr., 352 and 353 Good Block, Des Moines, is preparing plans for a low-pressure steam heating plant to be placed in University Place Church, Des Moines; work to be let soon.

AUBURN, NEB.—Nemaha county, it is reported, will again vote on the question of issuing \$40,000 in bonds for a county court house.

DEADWOOD, S. DAK.—This city voted July 14 to issue \$10,000 in bonds for a new school house, according to reports.

LISBON, N. DAK.—Bids are asked until Sept. 15 for remodeling and enlarging the court house, according to reports. T. J. Harris, County Auditor.

JEFFERSON CITY, MO.—Surveys have been made by the Missouri Pacific R. R. Co. for a new passenger and freight station, to be 243 ft. long and 36 ft. wide. The contract will be let soon. E. Fisher, Engr., Bridges and Buildings.

HELENA, MONT.—Bids are asked until Sept. 13 for erecting a 3-story brick, stone and iron capitol building, to cost about \$300,000. Archa., Bell & Kent, Merchants' Bank Bldg., Helena; Chn. Com., Robt. B. Smith; Secy., E. B. Kennedy.

ANACONDA, MONT.—Bids are asked until Aug. 8 for the purchase of \$30,000 of 6% school bonds. E. J. Nadeau, Clk. School Trustees of District No. 10.

BUTTE, MONT.—It is stated that the school board will ask for new bids for building the new school house for East Butte, to cost about \$28,600. The bids were given in our last issue.

COLORADO SPRINGS, COLO.—Steps are being taken for building a new First Methodist Episcopal Church, to cost about \$50,000. Dr. Allen, Pastor; Messrs. Hallett and Simmons are on the committee.

DENVER, COLO.—It is reported that a 5-story brick and stone theater building, 100 x 200 ft., to seat 3,000 persons, is to be erected on 15th and Arapahoe Sts., to cost about \$300,000. The Denver Tramway Co. is interested.

SPOKANE, WASH.—Bids are asked by the board of directors of school district No. 81 until Aug. 1 for constructing a 2-room brick school building. E. A. Thomas, Secy.

PORTLAND, ORE.—Bids are asked until Aug. 5 for furnishing plans and specifications for the erection of a court house. E. Hayter, County Clk.

FRESNO, CAL.—Bids are asked for the erection of a new school building. D. C. McDougall, Trustee.

OAKLAND, CAL.—The plans of Percy & Hamilton, Archa., for the new library building for the Sanford University have been accepted; cost, \$150,000.

PALO ALTO, CAL.—Bids for construction of a library building and an assembly hall to be erected on the campus have been opened, and work will be begun at once. Estimated cost of the two structures is \$280,000.

STOCKTON, CAL.—Bids are asked until Aug. 19 for erecting an administration building and two cottages on the grounds of the Preston School of Industry. Secy., B. T. K. Preston. Address J. W. Oates, Salz Bldg., Stockton.

LONDON, ONT.—Bids are asked until Aug. 1 for erecting a public school building. Herbert Matthews, Arch.

**WATER-WORKS.**

BREWER, ME.—Plans have been prepared by H. T. Sparks, Supt. Water-Works, Public Works Co., for a filter 50 ft. long to have a capacity of about 2,000,000 gallons of water a day. Other improvements to the works are also proposed.

BOSTON, MASS.—Bids are asked by the Metropolitan Water Board until Aug. 9 for making excavations for the North Dike of the Wachusett reservoir at Clinton (200,000 cu. yds. earth excavation), and also for laying 3,000 ft. of 48-in. pipe in the Brighton district, as stated in our advertising columns. F. P. Stearns, Ch. Engr.; W. N. Davenport, Secy., 3 Mount Vernon St.

NEWBURYPORT, MASS.—Bids are asked until July 29 for building a masonry foundation for a stand-pipe to be erected on the lot occupied by the present stand-pipe. C. C. Dame, Chn. Com.

NORTH ANDOVER, MASS.—Geo. M. Cole & Co., Lawrence, Mass., have been awarded the contract for building the new pumping station at \$5,312.

SEYMOUR, CONN.—C. W. Blakeslee & Sons, New Haven, Conn., have been awarded the contract for building a reservoir and dam for the Seymour Water-Works Co. The stream selected as a supply is the Pine Bridge Brook. The water company has purchased 12 acres of land and the pond will contain about 10,000,000 gallons of water. The plans contemplate the erection of a larger dam for storage reservoir later on. Total cost is estimated at \$30,000.

ALBANY, N. Y.—Bids are asked until Aug. 2 for laying 6 to 12-in. water mains in several streets. Supt., Geo. I. Bailey.—It is proposed to clean and improve the Bleeker reservoir.

HORSEHEADS, N. Y.—H. N. Siple and others, of Philadelphia, Pa., have applied for permission to build works.

FORESTPORT, N. Y.—The Forestport Water Co. has been incorporated by Howard M. Fordham, of Buffalo, and James Gallagher, Jr., Albert Herrig, Richard J. Monahan, Charles O'Connor, Francis X. Salzman, William E. Syphert, of Forestport; capital stock, \$10,000.

LANSINGBURG, N. Y.—Chas. A. Roemer, Village Engr., writes us that the proposed extension to the works will consist of a storage reservoir with a pipe line about 4 1/2 miles long, connecting with the present works.

MILLBROOK, N. Y.—Estimates, etc., for gravity works have been submitted to the board of trustees; estimated cost, \$15,000. F. H. Scrip, Village Clk., writes us that there is no prospect of the works at present. Population, 870.

MOUNT VERNON, N. Y.—The question of placing water meters in the buildings and houses supplied with water from the works of the New York Suburban Water Co. is being considered.

NORWOOD, N. Y.—The Norwood Water Co. has been incorporated with a capital stock of \$15,000 by Philip J. Barry and H. E. Mandeville, of Hazleton, Pa.; Dix W. Smith, of Elmira, N. Y.; W. B. Berry, Henry H. Warren, William H. Cushman and Leon C. Ball, of Massena, N. Y. Further information in regard to this improvement may be found in our issue of last week.

OGDENSBURG, N. Y.—Local papers state that a contract has been let to the Stilwell-Bierce & Smith-Vaile Co., Dayton, O., through their representative in this city, A. H. Halzell, for two 48-in. Victor waterwheels and other apparatus for the power pumps of the water-works.

PORT JERVIS, N. Y.—The Port Jervis Water-Works Co., it is stated, is about to make extensions to its works and also to increase the water supply.

TICONDEROGA, N. Y.—The water board is making surveys for a water main to Worcester Pond, a distance of 1 1/2 miles, for an increased water supply. Engr., D. M. Arnold.

BRIDGETON, N. J.—It is reported that the council has voted to spend about \$15,000 for building a new reservoir.

HAMMONTON, N. J.—A. H. Sutton, Pres. Bd. Water Comrs., writes us that nothing has yet been done by the council with regard to works. The next council will be held July 30.

JERSEY CITY, N. J.—Bids are asked until Aug. 1 for furnishing 90 dozen 3/4-in. stop cocks; 50 dozen 1/2-in. stop cocks; 25 dozen 1-in. stop cocks; 6 dozen 1 1/2-in. stop cocks; 10,000 lbs. of lead; 500 lbs. of solder. Geo. T. Bouton, Clk. St. and Water Bd.

MONTCCLAIR, N. J.—A. W. Simpson, Secy. Montclair Heights Water & Land Co., writes us that the company was incorporated to supply water to the Acquackanonk township, particularly for the development of Montclair Heights. Arrangements have been made for a reservoir. Wells and water-works are not wanted yet as the company has a hot-air system which will be used at present. Engr., W. S. Bacot, 1 Broadway, New York.

SALEM, N. J.—Bids are asked until Aug. 12 for constructing a filter plant of 500,000 gallons capacity, and also for a steam pump of 1,000,000 gallons capacity, as stated in our advertising columns. C. Hungerford, Engr., 116 West 69th St., New York; C. W. Casper, Supt. W.-W.

BARNESBORO, PA.—Bids are asked until Aug. 15 for the purchase of \$9,500 of 30-year bonds for the proposed new works, according to reports.

BRADDOCK, PA.—Bids are asked until Aug. 1 for furnishing and laying 10,300 ft. of 16-in. cast-iron water pipe and 3,370 ft. of 12-in. sewer pipe. Wm. Howat, Supt.

EVANS CITY, PA.—It is reported that this place has voted to issue \$40,000 in bonds for works.

LANCASTER, PA.—The council is reported to have engaged Edmund Mather, Pres. Water Comrs., Harrisburg, Pa., to submit a report for a settling basin for a better water supply for this city. Mr. Mather writes us that he is not aware of any action having been taken.

LATROBE, PA.—W. A. Johnston, Supt. Latrobe Water Co., writes us that the company will issue \$100,000 in bonds for the improvements to be made to the works, the contracts for which were let recently, as noted in our last issue. The total cost will be \$125,000.

NAZARETH, PA.—Frank Kunkel, Secy. Nazareth Water Co., writes us that no appropriation has been made and no steps taken for the proposed increased water supply. It is probable that steps will be taken soon.

SHENANDOAH, PA.—The committee has decided to build a 30,000,000-gallon reservoir at a cost of about \$16,000. The question is being considered of either securing an increased water supply or of purchasing for \$200,000 the plant of the Citizens' Water & Gas Co. and consolidating it with the city works. Councilmen Bell and Straughn may be addressed.

WILKES-BARRE, PA.—The Comings Lake Water Supply Co. has been incorporated with a capital stock of \$10,000, by C. Drymond, Frederick Cross, E. E. Hoyt, Kingston, Pa.; T. F. Ryman, Wilkesbarre; Thomas Winger, Luzerne, Pa.

GEORGETOWN, DEL.—W. T. Tunnell writes us that there is no probability of the proposed works being built this year.

CUMBERLAND, MD.—Geo. A. Kean, Mayor, writes us that nothing has been done as yet in regard to securing a better water supply. It is hoped, however, that the matter will soon be disposed of by the council. It is stated that E. A. Wilder, New York, has submitted a proposition for a new method of water filtration to cost \$35,000.

HARPER'S FERRY, W. VA.—This place is reported about to engage an engineer to look over the ground and report on the proposed works.

DAVIDSON, N. C.—The trustees of Davidson College have decided to build works to supply the town and college buildings. Pres., Rev. J. B. Shearer; Chn., Rev. W. J. McKay, Mayville, S. C.



ATLANTIC CITY, N. J.—Portions of South Carolina, Tennessee and Arkansas Aves. will be paved with brick. President Southwick may be addressed.

CARLSTADT, N. J.—Bids are asked until Aug. 4 for the purchase of \$30,000 of grading and macadamizing bonds. Frank Erdie, Borough Clk.

JERSEY CITY, N. J.—Bids are asked until Aug. 1 for about 680 sq. yds. of Belgian paving, 2,850 sq. yds. of asphalt paving, 3,372 lin. ft. of curbing, etc., on portions of Duncan and Highland Aves. Geo. T. Bouton, Clk. Bd. St. Comrs.

PATERSON, N. J.—Bids are asked until Aug. 1 for the purchase of \$30,000 of 5% road bonds. E. G. Edwards, Chn. Bd. Freeholders.

PATERSON, N. J.—The aldermen have voted to pave portions of Colt, Hamilton, Market and other streets with asphalt block and Broadway with brick. About \$97,000 has been appropriated.

RIVERTON, N. J.—Bids are asked until July 28 for about 2,100 lin. ft. of asphalt tile sidewalk and foundation 5 ft. wide. Henry S. Haines, Engr., Temple Bldg., Camden; Chas. S. Walnut, Borough Clk.

WOODBURY, N. J.—The board of freeholders has granted a petition for the construction of a stone road from Woodbury to Knight Run, a distance of 5/8 miles; estimated cost, \$7,500. Messrs. Sharpley, Knight, Pierson, Hendrickson and Starr have been appointed a committee to carry on this and other road improvements. Wm. M. Carter, Engr.

McKEES ROCKS, PA.—It has been voted to issue \$40,000 in bonds for street improvements.

READING, PA.—The board of public works has rejected the bids received July 18 for 30,000 lin. ft. of granite curbing and 52,000 sq. yds. of sheet asphalt paving, for which \$100,000 has been appropriated. The bids were too high. S. S. Hoff, Cy. Engr.

RIDGWAY, PA.—Bids are asked until Aug. 5 for paving about 2,000 lin. ft. of roadway, constructing drains, etc., as stated in our advertising columns. A. B. Little, Engr.; W. W. Barbour, Chn. St. Com.

SHARPSBURG, PA.—An ordinance will be presented to the council for issuing \$60,000 in bonds for the improvement of highways. Geo. H. Ayres, Chn.; Wm. C. Tibby, Geo. D. McMarran, Geo. L. Kell, Councilmen.

WILKINSBURG, PA.—Bids are asked until Aug. 3 for grading, curbing and brick paving in portions of Clark St. and three other streets. Prease & Spierling, Engrs.

BALTIMORE, MD.—The board of public works has awarded a contract to the Southern Asphalt Paving Co., Baltimore, at \$29,951, for paving Fulton Ave., and at \$35,814, for paving Mount Royal Ave.

ROCKVILLE, MD.—Bids are asked until Aug. 10 for grading and macadamizing about nine miles of county roads, as stated in our advertising columns. W. W. Welsh, Clk. County Comrs.

ALEXANDRIA, VA.—Bids are asked until Aug. 11 for furnishing and constructing 500 lin. ft. of curb and 1,000 sq. yds. of brick pavement, as stated in our advertising columns. E. B. Dunn, Cy. Engr.

CHARLESTON, S. C.—Bids are asked until Aug. 3 for paving the county roadway with granite blocks. Wm. P. Cantwell, County Supv.

ROME, GA.—Broad St. will be paved with brick between the Etowah River and Second Ave. Address Chairman Denny or City Engineer Smith.

NEW ORLEANS, LA.—Bids are asked until Aug. 8 for paving, etc., in Camp St., Claiborne Ave. and Canal St., as follows: 65,250 sq. yds. of sheet or rock asphalt on 4 to 6-in. concrete foundation; 195,000 brick, 280,300 lbs. of cast iron, 6,550 lin. ft. of curb, 9,500 lin. ft. of curb to reset, 38,500 ft. B. M. of cypress lumber, 650 sq. yds. of gutter buttons, etc. A. C. Bell, Cy. Engr.; P. A. Rabouin, Comptroller.

CHILLICOTHE, O.—Bids are asked until Aug. 13 for paving certain streets with brick, as stated in our advertising columns. H. M. Redd, Cy. Engr.; W. J. Eytb, Cy. Clk.

CLEVELAND, O.—Bids are asked until Aug. 19 for grading, draining and asphalt paving on the Superior St. viaduct. Geo. H. Warden, Dir.

DEFIANCE, O.—Bids are asked until Aug. 18 for excavating and grading in North Clinton St. and Ralston Ave. J. J. Malley, Cy. Clk.

LANCASTER, O.—Bids are asked until Aug. 13 for brick paving on Main St., from Broad to Maple St. H. T. Mechling, Cy. Clk.

LORAIN, O.—A committee consisting of D. C. Fisher and others have been appointed to consider the question of paving in Second St.

MANSFIELD, O.—Bids are asked by the clerk until Aug. 20 for the purchase of \$10,000 of 6% street bonds.

OSHERLIN, O.—Bids are asked until Aug. 15 for the purchase of \$4,000 of paving bonds and until Aug. 16 for constructing 2,000 sq. yds. of brick pavement. W. B. Gerrish, Cy. Engr.

ST. BERNARD, O.—Bids are asked until Aug. 17 for constructing sidewalks on the bridge over the canal on the Carthage pike road. E. L. Lewis, County Audr., Cincinnati.

SWANTON, O.—Thos. McKinney was awarded a contract July 11 at \$6,524 for about 4,500 sq. yds. of brick paving. F. H. Aldrich, Clk.

LAPORTE, IND.—Bids are asked until July 29 for about 9,000 sq. yds. of brick paving, according to reports. Geo. Koenig, Clk.

VERNON, IND.—Walter S. Downs and Peter Van Cleave, Viewers, and W. B. Prather, Engr., have submitted a report to the county commissioners on 17 miles of proposed macadamizing, at an estimated cost of \$40,342.

DETROIT, MICH.—Bids are asked until July 30 for furnishing the material and for constructing about 22,000 sq. yds. of cedar block pavement on concrete, etc., in portions of Seward Ave., Orleans St. and seven other streets. D. W. H. Moreland, Pres. Bd. Pub. Wks.

CHICAGO, ILL.—Bids are asked until Aug. 1 for grading, curbing and cedar block paving in Franklin Ave., at River Forest. Robt. E. Williams, Engr., 84 State St., Chicago; T. M. Jackson, Pres.

PEORIA, ILL.—Bids are asked until July 28 for 5,255 sq. yds. of asphalt paving, 3,208 cu. yds. of excavation, 3,346 lin. ft. of curb and gutter. M. W. Manning, Chn. Bd. Local Improvements; A. D. Thompson, Cy. Engr.

ROCKFORD, ILL.—Bids are asked until Aug. 1 for furnishing and constructing about 7,580 sq. yds. of asphalt and 2,885 sq. yds. of brick pavement in East State St. E. W. Brown, Pres. Bd. Local Improvements; Edwin Main, Cy. Engr.

JANESVILLE, WIS.—Bids are asked until Aug. 1 for grading, curbing and macadamizing South Main St., between Racine St. and Carrington St. A. E. Badger, Cy. Clk.

SHEBOYGAN, WIS.—Bids will soon be asked by the board of public works for the purchase of a road roller, to weigh about 28,000 lbs.

MINNEAPOLIS, MINN.—Bids are asked until July 29 for furnishing artificial combined curb and gutter. L. A. Lydiard, Cy. Clk.

BURLINGTON, IA.—Bids are asked until Aug. 1 for brick paving, etc., in Arch St., from Third to Fourth St. Emmet Steece, Cy. Engr.

COUNCIL BLUFFS, IA.—A resolution has been passed for the paving of portions of Ave. F, Pierce St. and five other streets, with brick.

SEDALIA, MO.—An ordinance will be presented to the council by A. P. Morey and others, for brick paving on Ohio St.

ST. LOUIS, MO.—Mayor Ziegenhein has recommended an ordinance appropriating \$100,000 for paving, to be presented in the general appropriation bill.

SPOKANE, WASH.—Bids are asked until Aug. 10 for grading, curbing and guttering in Chestnut St. and Mission Ave. H. B. Fowle, Secy. Bd. Pub. Wks.

OGDEN, UTAH.—The county commissioners will spend about \$2,500 for road improvements this year.

#### MANUFACTURING PLANTS.

BUFFALO, N. Y.—The People's Brewing Co., recently incorporated, is reported to have purchased a building on Broadway, near the Belt line. This building will be remodeled and machinery for a brewery will be put in. M. Hilburger, Buffalo, is preparing the plans and specifications. The plans for the machinery will be prepared by Emil Krampitz, of Buffalo. The brewery will have a capacity of 30,000 barrels of beer a year. Capital stock, \$120,000. Jos. E. Barnard, Geo. Baltz and C. R. Rossier, of the Rossier Carriage & Buggy Co., are interested.

DUNKIRK, N. Y.—The Buffalo Bridge & Iron Works has been awarded the contract for erecting a 220 x 80 x 36-ft. addition to the plant of the Brooks Locomotive Works. It will be of steel and have two heavy overhead cranes.

TROY, N. Y.—The Troy Laundry Machinery Co., Thomas S. Wiles, Pres., is negotiating for the purchase of a portion of the plant of the Gilbert Car Works property on Green Island, and it is probable that the transfer will be made in a few days. The plant of the company on Fulton St. has become inadequate, and it was found necessary to enlarge. The present establishment will be continued in conjunction with the new one.—Additions and alterations are to be made to the Troy Paint Works, Wm. Connors, Pres.; estimated cost, \$22,000. Archs. M. F. Cummings & Son, Troy.

CONNELLSVILLE, PA.—Presa reports state that the plant of the Slaymaker-Barry Co., which was destroyed by fire about five weeks ago, is to be rebuilt. Plans have been prepared and the contract let for the padlock factory. The buildings will be of iron and steel, and will cost \$20,000. The main building will be 70 x 40 ft. Besides this there will be a boiler room 35 x 42 ft., an engine room 36 x 40 ft., and a stock house 20 x 40 ft. The contract for the entire building, machinery included, has been let to Edward Erickson, contracting engineer, Pittsburg, Pa. Mr. Erickson has also secured the contract for putting in two new mills at the plant of the Humbert Tin Plate Co., Connelville. An addition to the building will be made, the contract for this part of the work having been secured by W. B. Scaife & Sons, Pittsburg, while all the other work will be furnished by Mr. Erickson.

ROCKINGHAM, N. C.—Presa reports state that the Pee Dee Mfg. Co. will begin at once the building of Mill No. 2. The structure will be two stories high, 317 x 100 ft., and its equipment of machinery will include 6,000 spindles, 300 looms, dyehouse equipment and the necessary engine and boilers to furnish the power. This machinery has not yet been purchased.

SALISBURY, N. C.—Geo. R. Collins has purchased the plant of the Artificial Ice Co., and, it is stated, will put in new machinery at once.

ROCK HILL, S. C.—Wm. O. Webber, Consulting Engr., 55 State St., Boston, Mass., writes us that the contract has not yet been let by the Rock Hill Cotton Factory Co. for furnishing the machinery and for constructing its plant. There will be a 1 1/2-story building, 100 x 230 ft., a 2-story building, 30 x 80 ft., etc., supplied with steam heating, electric lights, spindles, etc.; estimated cost, \$20,000. The equipment will include a 600-HP. engine, etc.; estimated cost of equipment, \$120,000.

JACKSONVILLE, FLA.—It is reported that the Duval & Clay Sugar Co. will increase its capital stock, which is now \$300,000, for constructing and equipping a new mill. Treas., J. F. Eldridge.

#### MISCELLANEOUS CONTRACTS.

FIRE HOSE.—Troy, N. Y.—Bids are asked until Aug. 1 for furnishing fire hose. C. W. Peoble, Clk. Fire Bd.

DITCH.—Lafayette, Ind.—Bids are asked until July 29 for constructing a drainage ditch. M. W. Miller, Chn. Com.

BONDS.—Poplarville, Miss.—Bids are asked until Aug. 15 for the purchase of \$2,500 of bonds. R. H. Reeves, Town Clk.

LADDER TRUCK.—Cincinnati, O.—Bids are asked until Aug. 2 for furnishing one ladder truck. C. F. Lakeman, Secy. Bd. Fire Trustees, 66th St.

BONDS.—Newark, N. J.—Bids are asked until Aug. 10 for the purchase of \$500,000 of 4% park improvement bonds. D. H. Johnson, Chn. Finance Com.

DITCH.—Kenton, O.—Bids are asked until Aug. 6 for constructing the Scioto River ditch improvement. W. E. Myers, Engr.; James Bastable, County Audr.

DREDGING.—Norfolk, Va.—Bids are asked until Aug. 3 for dredging the Elizabeth River from Hampton Roads to Norfolk. Capt. Thos. L. Casey, U. S. Engrs., Norfolk.

LEVEE WORK.—Desha County, Ark.—Bids are asked until Aug. 5 for levee work. Address Board of State Engineers, Cotton Exchange Bldg., New Orleans, La.

DRAINAGE DITCH.—Arthur, Ill.—Bids are asked until Aug. 6 for constructing a drainage ditch, etc., about 25,000 cu. yds. of excavation. W. M. Fleming, Town Clk.

DREDGING.—Montgomery, Ala.—Bids are asked until Aug. 20 for dredging at entrance to Pensacola Bay, Fla., as stated in our advertising columns. Maj. F. A. Mahan, U. S. Engrs.

RIVER WORK.—Buffalo, N. Y.—Bids will soon be asked by the harbor commissioners for work on section A in the Buffalo River, including a channel 250 ft. wide and 20 ft. deep.

HOSE WAGON.—Leavenworth, Kan.—Bids are asked until Aug. 3 for furnishing a combination chemical and hose wagon, to cost about \$1,000. Geo. W. Kaufmann, Chn. Com.

HIRE OF DREDGING PLANT.—Mobile, Ala.—Bids are asked until Aug. 24 for the hire of dredging plant for Mobile River and Bay, as stated in our advertising columns. Maj. Wm. T. Russell, U. S. Engrs.

LEVEE WORK.—Columbus, O.—Reports state that Julian Griggs, Cy. Engr., has submitted an estimate of \$752,618 for the necessary strengthening of the west side levee.

DRY DOCKS.—New Orleans, La.—Reports state that the New Orleans & Western Ry. Co. will construct four new docks, 150, 300, 350 and 1,500 ft. long, to cost about \$200,000, at Port Chalmette.

TELEPHONE SYSTEM.—Clarence, Mo.—Bids were received July 23 for the purchase of a franchise to construct and operate a telephone system. H. J. Simmons, Mayor; A. B. Irwin, Cy. Clk.

FIRE ENGINES AND BOILERS.—Chicago, Ill.—Bids are asked until Aug. 3 for furnishing one first-size and two second-size Metropolitan steam fire engines, and two extra boilers, 31 x 64 ins. D. J. Sweeney, Fire Marshal.

SUBMARINE PIPELAYING.—Philadelphia, Pa.—Lewis F. Shoemaker & Co., 417 Fidelity Building, advised us last week that they wished to engage a man for two or three months to lay pipe in about 7 ft. of water.

SUPPLIES.—Memphis, Tenn.—Bids are asked until Aug. 18 for furnishing brush, poles, riprap stone, wire, rope and other supplies, as stated in our advertising columns. Capt. Mason M. Patrick, U. S. Engr., 36 Equitable Bldg.

TILE AND EXCAVATING.—Champaign, Ill.—Bids are asked until Aug. 6 for excavating about 13,500 cu. yds. of earth and for furnishing, hauling and laying about 6,300 lin. ft. of 8 to 18-in. tile. Chas. Witt, Chn. Drainage Com.

DRAINAGE DITCH.—Ottawa, Ill.—Bids are asked until Aug. 15 for constructing about 8 miles of drainage ditch in Wallace and Walkham. About 100,000 cu. yds. of excavation will be required. Chas. F. Wilson, Engr.; Samuel Bonney, Clk., Ottawa.

FIRE ALARM SYSTEM, ETC.—Oakland, Cal.—A petition has been presented to the council by Edward J. Wolfe, David Bibber and Frederick Kahn, for permission to construct and maintain a burglar, police, fire alarm and a district telegraph messenger system. Bids will be asked for the purchase of a franchise.

HYDRAULIC DREDGE.—St. Louis, Mo.—The following bids were received July 22 for furnishing a hydraulic dredge, as advertised in Engineering News. Capt. H. E. Waterman, U. S. Engrs., Secy., Mississippi River Com.:  
Refrigerating  
Dredge plant

Springfield Boiler & Mfg. Co., Springfield, Ill. \$94,970 \$2,981  
Edw. Flad, St. Louis, Mo. .... 98,181 2,300  
The Bucyrus Co., South Milwaukee, Wis. .... 129,760 2,448

#### INDUSTRIAL NOTES.

THE FISHER GOVERNOR CO., Marshalltown, Ia., writes us that it has recently sold 20 townlots to one firm and 11 to another firm in Cleveland, O.

THE BIRMINGHAM PIPE WORKS, Birmingham, Ala., was sold July 16, at public auction by R. C. White, assignee, according to report, to the Ahrens & Ott Mfg. Co., Louisville, Ky., for \$1,000 cash, and \$5,000 in liens, which were assumed by the latter company.

THE PITTSBURG LOCOMOTIVE & CAR WORKS, Pittsburg, has an order from the Wheeling Bridge & Terminal Co., Wheeling, W. Va., for six 100,000-lb. switching locomotives, with Westinghouse air-brakes, to cost about \$75,000 each, according to report.

THE STILLWELL-BIERCE & SMITH-VAILE CO., Dayton, O., is said to have received an order, through its representative, Mr. A. H. Dalzell, Ogdensburg, N. Y., for two 48-in. Victor water wheels and other apparatus for the power pumps of the Ogdensburg city water-works.

THE FRONTIER IRON WORKS, Detroit, Mich., is adding new brass furnaces to its plant and increasing the size of its brass foundry, in order to take care of the increase in its valve business. The company states that the demand for its Frontier hot water radiator valves is beyond precedent.

THE WEBER RAILWAY JOINT MFG. CO., Cotton Exchange Bldg., New York, has elected the following officers: Emil Greeff, Pres.; Edward Y. Weber, Vice-Pres. and Treas.; George A. Weber, Secy., and Percy Holbrook, Gen. Mgr.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., has a contract from the New Haven Gas Light Co., New Haven, Conn., for its new fireproof coal shed, 60 x 500 ft., with a steel frame arranged so that the coal cars are brought into the building on a track supported by the roof trusses, thus providing the maximum storage at the least expenditure of power and room.

THE SEMI-STEEL CO., King & Andrews Co., proprietors, Chicago, reports that it has just completed its large new foundry at Chicago Heights, Ill. The following roads have tracks into the yards: Chicago & Eastern Illinois R. R., Michigan Central Ry. and Elgin, Joliet & Eastern Ry., giving the factory excellent shipping facilities to all points. The factory was recently described in our columns.

THE KEYSTONE BRIDGE CO., Pittsburg, is reported to have the contract to build the Buffalo, Rochester & Pittsburg R. R. bridge, 1,600 ft. long, 125 ft. high, and 25 ft. wide, over the Allegheny River, at Moss Grove, near Pittsburg, at a cost of \$150,000. The Jutte & Foley Co., Pittsburg, has the contract for the substructure. E. K. Morse, Pittsburg, is the engineer in charge of the work.

THE PITTSBURG BRIDGE CO., Pittsburg, Pa., has received through Collins & Norton, New England agents, a contract from the Dwight Mfg. Co., Chicopee, Mass., to build a steel roof over its boiler house which was recently destroyed by fire. This will do away with all wood work in the building. The town of Brookfield, Mass., has also placed a contract with the company for a new bridge on the state highway in the town of East Brookfield, Mass.

THE AMERICAN IMPULSE WHEEL CO., 120 Liberty St., New York, states that it is making steady headway with its improved water wheel in this and foreign countries. The company has wheels installed in Japan, France, Sweden and Scotland, which are reported as giving favorable results, and among contemplated large power and transmission plants in Utah, Canada, Montana and Minnesota the wheels are also being given serious consideration. Mr. Thorburn Reid is Consulting Engineer of the company.

THE STOREY MOTOR & TOOL CO. has moved its main office and factory from Philadelphia to 464 South Broad St., Trenton, N. J., in the plant with the Trenton Iron Co. The change has been made necessary by the increased demand for its electrical machinery, particularly the multipolar, enclosed, fast and moisture-proof motors, the first of this style. It is claimed to be placed on the market. The company, with its increased facilities, will also push the sale of its open-type machines for all classes of standard work, together with several lines of specialties which up to the present it has been unable to put upon the market.



