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## PERSONAL.

Mr. B. F. Hewitt has resigned as City Engineer of Connecticut.

Mr. Lawrence M. Jacobs has been appointed Statistician of the Philippine Commission.

Mr. Emerson Chamberlain has been elected President of the Peoria, Decatur & Evansville Ry.

Mr. F. W. Whitridge has been elected President of the Cincinnati Northern R. R., vice Mr. Samuel Thomas.

Mr. Geo. W. R. Harriman, Civil Engineer, of Boston, Mass., was married to Miss Mabel L. Locke, of Boston, on Nov. 28.

Mr. Ludwig Gutmaun, M. Am. Inst. E. E., has severed his connection with the Royal Electric Co., to take up private practice.

Mr. Henry M. Steele has been appointed Chief Engineer of the Central of Georgia R. R., with headquarters at Savannah, Ga.

Mr. E. D. Nash, formerly Trainmaster of the Central Vermont Ry., at St. Albans, Vt., has been appointed Superintendent.

Lieut. F. W. Alstaetter, Corps of Engineers, U. S. A., was recently released from captivity by the insurgents in the Philippines.

Mr. Joseph B. Russell has been elected President of the West End Street Ry. of Boston, Mass., vice Mr. Samuel Little, resigned.

Mr. O. D. Killebrew has been appointed Roadmaster of the Savannah Division of the Southern Ry., with office at Columbia, S. C.

Mr. T. Warren Allen, Civil Engineer, has been appointed Superintendent of Construction and Repairs in the government service.

Mr. Herbert Brand, of Malone, N. Y., has been appointed Assistant Electrical Engineer at the State Reformatory at Elmira, N. Y.

Mr. D. M. Rosser, Civil Engineer, has been engaged by the government to take charge of the paving and sewerage of the city of Havana, Cuba.

Capt. Edgar C. Bowen is detailed as Professor of Military Science and Tactics at the University of North Dakota, Grand Forks, N. Dak.

Mr. H. W. Hoyt, Secretary and General Manager of the Gates Iron Works, of Chicago, has been elected President of the National Founders' Association.

Mr. R. V. Norris, Assistant Engineer for the coal companies of the Susquehanna R. R., has been appointed Chief Engineer, vice Mr. J. H. Bowden, deceased.

Mr. John J. Monahan has been appointed Division Master Mechanic of the Louisville & Nashville R. R., at Memphis, Tenn., vice Mr. J. V. Slusser, deceased.

Mr. C. S. Hayden, Superintendent of the Mobile Division of the Southern Ry., has been appointed Superintendent of the Birmingham Division, vice Mr. A. J. Frazer.

Mr. D. H. Louderbach, of Chicago, who was recently appointed to superintend the construction of the Charing Cross Underground R. R. in London, has resigned.

Professor F. L. Harding, of the Newark Technical School, has been chosen by the Mohican Water Co., of Bridgeport, Conn., to superintend the erection of its new plant.

Mr. B. E. Cartwright, General Manager of the Pittsburgh, Shawmut & Northern R. R., has been elected Vice-President and General Manager of the Little Kanawha R. R.

Mr. J. Burke has been appointed Master Mechanic of the Louisville, Evansville & St. Louis Consolidated R. R., with headquarters at Princeton, Ind., vice Mr. F. C. Cleaver.

Mr. H. P. S. Norstrand has resigned his position with the Pennsylvania Boiler Works, of Erie, Pa., to accept a position with the Abendroth & Root Mfg. Co., of New York city.

Mr. S. B. Foote has been elected President of the Duluth, Redwing & Southern R. R., vice Mr. T. B. Sheldon, deceased, and Mr. L. F. Hubbard, Vice-President and General Manager.

Mr. W. A. George, General Foreman of the shops of the Colorado Midland Ry., at Colorado Springs, Colo., has been appointed Master Mechanic of the Colorado & Southern Ry., at Denver, Colo.

Capt. Clement A. F. Flagler, Corps of Engineers, has been ordered to report to the Commanding General, Department of the East, for assignment to duty as Engineer Officer of that department.

Mr. Otto H. Tittmann has been appointed Superintendent of the United States Coast and Geodetic Survey, vice Dr. Henry S. Pritchett, resigned, to whom he has been Assistant for the last seven years.

Mr. Parker Spofford, of Bucksport, Me., has been appointed Railroad Commissioner to succeed Mr. Frederick Danforth. Mr. Spofford is a graduate of the Scientific Department of Dartmouth College.

Mr. J. Waldo Smith, Chief Engineer and Superintendent of the Passaic Water Co., will become General Manager on Jan. 1, when the headquarters and executive offices will be consolidated in Paterson, N. J.

Mr. G. G. Ward, Vice-President and General Manager of the Commercial Cable Co., has returned to this country from Germany, having finished his work in connection with laying the United States-German cable.

Major D. A. Lyle, Ordnance Department, U. S. A., has been ordered to visit the works of the Crown Smelting Co., at Chester, Pa., on business pertaining to the inspection and manufacture of disappearing gun carriages.

Mr. David S. Hill will retire on Jan. 1 as Assistant to Chief Engineer Handy, of the Lake Erie & Western R. R., and will be succeeded by Mr. S. C. Cleveland, Assistant Engineer of the Lake Shore & Michigan Southern Ry.

Lieut. Col. John Simpson, Deputy Quartermaster General at Philadelphia, Pa., has been ordered to Washington to confer with the Quartermaster General in regard to the construction of public buildings at Fort Sam Houston, Tex.

Dr. A. Donaldson Smith, of Philadelphia, Pa., has returned to this country from a tour of exploration in the interior of Africa. Dr. Donaldson will lecture on his travels before the Geographical Society in Philadelphia, on Jan. 2.

Mr. Frank O. Maxson, Civil Engineer at the Charleston Navy Yard, S. C., has been ordered to Washington for temporary duty as President of the Examining Board which will examine the candidates for appointments to the Engineer Corps of the navy.

Mr. F. R. Hertzog, formerly with the Brown Hoisting & Conveying Machinery Co., Cleveland, O., has been appointed Chief Engineer for Tate, Jones & Co., of Pittsburgh, Pa., in charge of its recently formed hoisting and conveying machinery department.

Mr. Keisuke Niwa, Administrator of the Central Union of Japanese Exhibitors at the Paris Exposition, is in this country en route to Japan. Mr. Niwa will stop at Buffalo, N. Y., to investigate the opportunities offered to the Japanese exhibitors at the approaching Pan-American Exposition.

Mr. J. L. Weller, for 12 years Resident Engineer of the St. Lawrence canals, at Cornwall, Ont., and Engineer in charge of the Port Colborne harbor improvements for the past six months, has been appointed Chief Engineer of the Welland Canal, with headquarters at St. Catharines, vice Mr. S. W. Thompson, resigned.

Mr. Evelyn B. Baldwin, commandant of the Baldwin-Ziegler polar expedition, has sailed for Europe, where he will purchase equipment for use in connection with the work to be done next year in the Arctic regions. Mr. Baldwin will confer with the officers of the British Antarctic Expedition relative to scientific work to be accomplished.

In connection with the note regarding the naming of Capt. Francis T. Bowles as the successor of Chief Constructor of Navy Philip Hichborn, on the retirement of the latter, in our issue of Nov. 29, it has been called to our attention that the reconstruction of Dry Dock No. 2, Brooklyn Navy Yard, was under the direct supervision of Capt. P. C. Asserson, Civil Engineer, U. S. N. Capt. Bowles was in charge of the repairs to the entrance of the dry dock after its failure in 1897.

Capt. T. Matsue and Commander K. Yamada, heading a party of Japanese officials, have arrived in San Francisco, Cal. The business of the party will be to inspect modern war vessels in this country, and probably to negotiate for the construction of one or two cruisers, and go then to England to inspect the torpedo-boat destroyers now being built for the Japanese government. Mr. H. Keizumi, Superintendent of the Yokobama Warehouse Department and Chief Accountant in the Japanese custom house, will go to France to investigate custom house taxation.

Mr. George W. Vaughan has been appointed Division Engineer of the Pennsylvania Division of the New York Central & Hudson River R. R., with headquarters at Jersey Shore Junction, Pa., vice Mr. Schuyler Hazard, transferred, and is succeeded by Mr. James E. Johnson as Supervisor of Bridges and Buildings, with headquarters at Grand Central Station, New York city. Mr. Charles E. Buckholz has been appointed Acting Division Engineer of the River Division, with headquarters at Weehawken, N. J., vice Mr. F. S. Curtis, resigned, and is succeeded by Mr. John H. Silvernail as Supervisor of Track, Sub-Division No. 6, with headquarters at Fonda, N. Y. Mr.

Andrew M. Clough has been appointed Supervisor of Track, Sub-Division No. 23, with headquarters at Batavia, vice Mr. P. B. Wittmer, resigned, and is succeeded by Mr. Perlee J. Compton as Supervisor of Track, Sub-Division No. 21, with headquarters at Kingston. Mr. Thomas Shea has been appointed Supervisor of Track, Sub-Division No. 14, with headquarters at North Tonawanda, vice Mr. A. S. Weston, resigned, and Mr. Michael Gurnett, Supervisor of Track of Sub-Division No. 1, with headquarters at White Plains, vice Mr. O. W. Eggleston, resigned. Mr. Thomas Shea is succeeded by Mr. J. Morau as Supervisor of Track, Sub-Division No. 15, and Mr. Michael Gurnett by Mr. M. E. Egau as Supervisor of Track, Sub-Division No. 16, with headquarters at Oswego.

## OBITUARY.

Mr. Chas. Reeder, of Baltimore, Md., senior partner of the firm of C. Reeder & Sons, shipbuilders, died on Dec. 1.

Mr. Andrew Crawford, formerly Vice-President of the Chicago & Western Indiana Ry., died in Chicago on Nov. 22.

Mr. Halcyon Skinner, inventor of the looms for weaving tapestry and carpets, was struck by a train and killed at Yonkers, N. Y., on Nov. 28.

Mr. Dennis E. Callahan, Assistant Superintendent of the Boston Water Department, died on Nov. 28. Mr. Callahan was a graduate of the Massachusetts Institute of Technology.

Mr. A. Cushman Bishop, Civil Engineer of Detroit, Mich., was found dead in his home on Nov. 23. His death is supposed to have resulted from being accidentally suffocated by coal gas. Mr. Bishop was 68 years of age.

Mr. Joseph W. Hildreth, formerly a Civil Engineer, died at his home in Manchester, N. H., on Dec. 1. Mr. Hildreth was at one time Assistant Superintendent of the Manchester & Lawrence R. R. He was 74 years of age.

Mr. Francis Chase, Civil Engineer of Salem, Mass., died on Nov. 29, aged 84 years. Mr. Chase was employed as Chief Engineer in the construction of the Fitchburg, Vermont & Massachusetts, the Rutland & Vermont and the Vermont Central railways. He was Superintendent of the Portland, Saco & Portsmouth R. R. from 1863 to 1872.

## ENGINEERING SOCIETIES.

## COMING MEETINGS.

TECHNISCHER VEREIN VON PHILADELPHIA.  
Dec. 8. Paper: "History of the Steam Engine Governor," by W. Frinks. Secy., F. Sachs, 859 Marshall St., Philadelphia, Pa.

AMERICAN INSTITUTE OF ARCHITECTS.  
Dec. 12 to 15. Annual convention in New York city. Secy., Glenn Brown, The Octagon, Washington, D. C.

LEAGUE OF AMERICAN MUNICIPALITIES.  
Dec. 12 to 15. Annual convention at Charleston, S. C. Secy., B. F. Gilkinson, 111 Nassau St., New York city.

WESTERN SOCIETY OF ENGINEERS.  
Dec. 19. Papers: "Sewer Construction," by Guy Millmore; "Methods of Tunnel and Crib Construction in Chicago," by Paul G. Brown. Secy., Nelson L. Litten, 1738 Monadnock Block, Chicago, Ill.

AMERICAN SOCIETY OF CIVIL ENGINEERS.  
Dec. 19. Paper: "Some Peculiar Railroad Bridge Accidents," by J. I. Boggs, Assoc. Mem. Am. Soc. C. E. Secy., Charles Warren Hunt, 220 W. 57th St., New York city.

CHICAGO ELECTRICAL ASSOCIATION.  
Dec. 21. Paper: "Electrical Features of the Paris Exposition," by J. M. Hollister. Annual election of officers. Secy., R. H. Schuchardt, 139 Adams St., Chicago, Ill.

MICHIGAN ENGINEERING SOCIETY.  
Jan. 8 to 10. Annual meeting at Ann Arbor, Mich. Secy., F. Hodgman, Climax, Mich.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.—At the meeting of the Institute held Nov. 23 a paper was presented by Mr. B. A. Behrend, of Erie, Pa., on "The Mechanical Forces in Dynamos Caused by Magnetic Attraction." The author exhibited a few lantern slides of the machines from which the data in his paper were derived. A paper was also presented by Mr. Henry Floy, of New York city, on "The Plant of the St. Croix Power Company, of Wisconsin."

AMERICAN INSTITUTE OF ARCHITECTS.—The annual convention will be held at Washington, D. C., Dec. 12 to 15. Among other topics the following subjects will be discussed: "The Grouping of Government Buildings, Landscape and Statuary in Washington," "Progress of Architectural Design in the United States in Recent Years." Drawings will be exhibited of government buildings, the buildings of the Pan-American Exposition at Buffalo and the Phoebe Hearst competitive drawings for the University of California.

HIGH-SPEED ENGINE BUILDERS OF THE UNITED STATES.—At the annual convention, held in New York city, on Dec. 4, the following papers were presented: "Some Requisites of Modern Lighting Generator Sets," by Mr. H. G. Reist, of the General Electric Co.; "Interrelations Between Engine and Generator Builders in Connection with Engine Type Units for Power Purposes," by Mr. H. C. Ehert, of the Westinghouse Electric & Mfg. Co., and "Economy Guarantees of High-Speed Simple Engines," by Mr. E. J. Armstrong, of the Ball Engine Co. The first two papers aroused much discussion. The society has appointed a committee which will confer with the committees on the same subject appointed by the American Society of Mechanical Engineers and the American Institute of Electrical Engineers.

**LEAGUE OF AMERICAN MUNICIPALITIES.**—At the annual convention to be held at Charleston, S. C., Dec. 12 to 15, the following papers will be presented. Each paper will be followed by a discussion to be opened by some one whose name will be given on the program: "Regulation of Saloons," by L. H. Chappell, Mayor of Columbus, Ga.; "Sewage Disposal Problems," by M. N. Baker, Assoc. Editor of Eng. News; "Street Sprinkling and Cleaning," by W. C. Maybury, Mayor of Detroit, Mich.; "Public Band Concerts," by J. R. Robinson, Mayor of Colorado Springs, Col.; "The Prevention of the Introduction of Epidemic Diseases into the United States," by Dr. Wm. F. Brunner, Health Officer of Savannah, Ga.; "A Practical Illustration of Municipal Ownership in a New England Community of 10,000 Inhabitants," by Thomas C. Perkins, Consulting Engineer, Hartford, Conn.; "The Contract System for Street Improvements," by J. A. Johnson, Mayor of Fargo, N. D.; "The Best Method for the Assessment and Collection of Taxes and Limitations on the Taxing and Debt Creating Powers of Municipalities," by John B. Weakley, Mayor of Florence, Ala., and by Lawson Purdy, Secy. of New York Tax Reform Association, New York city; "Street Paving," by S. F. Crahne, City Engineer of Fargo, N. D., and by Geo. W. Tillson, City Engineer of Brooklyn, N. Y.; "Shade Trees and Their Preservation," by C. T. Driscoll, Mayor of New Haven, Conn.; "Municipal Expansion," by Clinton Rogers Woodruff, Secy. National Municipal League, Philadelphia, Pa.; "Some Present English Municipal Conditions," by Prof. Edward W. Bemis, Chicago, Ill.; "Which—Boards, Single-Headed Commissions or Council Committees?" by Samuel J. Swartz, Mayor of Columbus, O.; "The Special Assessment System for Public Improvements," by Paul Capdeville, Mayor of New Orleans, La.; "The Fire Departments of Our Cities," by Frank C. Mason, Supt. of Police Telegraph, Brooklyn, N. Y.; "The Electric Lighting Plant of Chicago," by Edward B. Ellicott, City Electrician of Chicago, Ill.; "Public Water Supplies," by George R. Perry, Mayor of Grand Rapids, Mich.; "Remuneration to Cities for Franchise Rights," by Bird S. Coler, Comptroller of New York city, and by C. W. Tooke, Professor of Law at the University of Illinois; "Garbage Disposal," by M. Craven, Sanitary Inspector of New York city, and by J. J. Williams, Mayor of Memphis, Tenn.; "Uniformity of Municipal Accounting," by James Blake Cahoon, President of the National Electric Lighting Association, Syracuse, N. Y., and by H. B. Henderson, State Examiner of Public Accounts, Cheyenne, Wyo.; "Municipal Ownership of Public Service Industries," by W. N. Drennen, Mayor of Birmingham, Ala., and by John C. McVicar, ex-Mayor of Des Moines, Ia.; "Obstacles in the Way of Municipal Ownership," by Samuel M. Jones, Mayor of Toledo, O.

### NEW PUBLICATIONS.

**ELECTROLYSIS OF UNDERGROUND METAL STRUCTURES.**—By D. H. Maury. Paper; 6 x 9 ins.; pp. 22; 20 illustrations. Peoria, Ill.: Address the author.

Although not so stated in the pamphlet, this is, at least in substance, a paper read by Mr. Maury at the 1900 convention of the American Water-Works Association. The paper, slightly condensed, and with only a part of the illustrations, was published in our issue of July 19, 1900; it is given in full in the proceedings of the association. The paper is a valuable one and doubtless many of those interested in the subject will gladly avail themselves of an opportunity to secure it in a separate form.

**A COMPARATIVE STUDY OF THE METHODS USED FOR THE MEASUREMENT OF THE TURBIDITY OF WATER.**—By Geo. C. Whipple and Daniel D. Jackson. Reprinted from the Technology Quarterly, vol. xiii, No. 3, September, 1900. Paper; pp. 274-294; four figures in the text. Address the authors, Mt. Prospect Laboratory, Brooklyn, N. Y.

This is a brief but sufficiently comprehensive review of the gravimetric, wire, diaphanometer and standards of comparison methods of measuring the amount of turbidity in water. All four methods are "fairly satisfactory, but each one has its objections and its limitations."

### TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½x6 ins., 6x9 ins., and 9x12 ins.)

**STEAM PUMPS.**—Union Steam Pump Co., Battle Creek, Mich. Paper; 6 x 6 ins.; pp. 88; illustrated.

A wide range of both Moore and Burnham pumps for all classes of service are described in this catalogue.

**RAILWAY CROSSING GATES.**—Standard Railway Gate Co., Saginaw, Mich. Paper; 9 x 6 ins.; pp. 24; illustrated.

This pamphlet describes and illustrates in some detail the lever operated, single connection crossing gate made by the firm named.

**STORAGE BATTERIES.**—Electric Storage Battery Co., Allegheny Ave. and 19th St., Philadelphia, Pa. Paper; 6 x 9 ins.; pp. 23; illustrated.

This catalogue gives the dimensions, weights, capacities, prices, etc., of the different types of accumulators manufactured by this company.

**ELECTRIC METERS.**—Fort Wayne Electric Works, Fort Wayne, Ind. Paper; 8 x 10½ ins.; pp. 8; illustrated.

This company manufactures an induction integrating watt-meter for single-phase circuits. It may be adapted to high or low frequency circuits by simply soldering or unsoldering a connection.

**PIPE THREADING AND CUTTING MACHINES.**—The Bignall & Keeler Mfg. Co., Edwardsville, Ill. Paper; 4 x 6 ins.; pp. 108; illustrated.

Through a typographical error this company was located in California, instead of Illinois, in our recent notice of its catalogue.

**ELEVATORS.**—Kimball Bros., Council Bluffs, Ia. Paper; 6 x 9 ins.; pp. 48; illustrated.

This catalogue describes a large variety of freight and passenger elevators and elevator appliances, including electric motors and controllers, safety devices, automatic hatch gates and doors, etc.

**STEEL WHEEL BARROWS.**—Archer Iron Works, 36 La Salle St., Chicago, Ill. Paper; 6 x 8½ ins.; pp. 12; illustrated.

This is a descriptive and priced catalogue of all manner of steel wheelbarrows, lumber carts, and building iron-work, each illustrated and its purpose set forth.

**VERTICAL ENGINES.**—Erie Pump & Engine Co., Erie, Pa. Paper; 3 x 6 ins.; pp. 12; illustrated.

The steam engines described in this leaflet are small vertical engines for high-speed service. A balanced flat valve is used. This company has also small vertical boilers. Prices and dimensions are given.

**CENTRIFUGAL PUMPS.**—Erie Pump & Engine Co., Erie, Pa. Paper; 9 x 6 ins.; pp. 24; illustrated.

The centrifugal pumps described in this circular are designed for various kinds of service and are so built that they may be driven by belt or by direct connection to an electric motor or a high-speed steam engine.

**WIRE FENCING.**—Up-to-Date Mfg. Co., Terre Haute, Ind. Paper; 9 x 6 ins.; pp. 32; illustrated.

This catalogue illustrates and describes a large variety of wire fencing for lawns, cemeteries, etc. Among the specialties shown are several forms of cast anchors for metal fence posts. Prices are given in all instances.

**WELL-DRILLING MACHINERY.**—Keystone Driller Co., Beaver Falls, Pa. Paper; 9 x 11½ ins.; pp. 76; illustrated.

This book treats of well-drilling machinery for making artesian wells and test wells for minerals, gas and oil, etc. Much practical information pertaining to well-drilling is given.

**ROCK DRILLS AND MOUNTINGS.**—The John M. Rogers Boat, Gage and Drill Works, Gloucester City, N. J. Paper; 6 x 9 ins.; pp. 24; illustrated.

This is a priced and descriptive catalogue of the Eureka steam rock drill, and all its mountings and connections. The catalogue includes hoisting machines of various types, electric fuses, leading wire, etc.

**INTEGRATING WATT-METERS.**—Fort Wayne Electric Works, Fort Wayne, Ind. Paper; 4½ x 6½ ins.; pp. 39; illustrated.

The Type K single-phase alternating-current watt-meter, described in this book, is of the induction type and is designed to register the energy of alternating current circuits regardless of the power factor.

**PNEUMATIC TOOLS.**—Chicago Pneumatic Tool Co., 635 Monadnock Block, Chicago, Ill. Paper; 9 x 6 ins.; pp. 96; illustrated.

This book describes in French, German and English the air-driven appliances manufactured by the above company. The present catalogue is well gotten up and was printed for circulation at the Paris Exposition.

**GRUB AND STUMP MACHINES.**—The Milne Manufacturing Co., Monmouth, Ill. Paper; 5¼ x 7¼ ins.; pp. 80; illustrated.

This annual catalogue gives full information as to the machines made by this company for pulling stumps and clearing lands, including the steel wire rope and the many appliances used in connection with the machines.

**PUMPING MACHINERY.**—The Epping Carpenter Co., Pittsburg, Pa. Paper; 8 x 5 ins.; pp. 60; illustrated.

Following its description of the various kinds of pumps made by it the publishers of this catalogue give some "useful information" relating to steam, duty of steam engines, fire streams and other subjects of interest to pump users.

**OIL ENGINES.**—Priestman & Co., 530 Bourse Bldg., Philadelphia, Pa. Paper; 7 x 6 ins.; pp. 16; illustrated.

In this engine finely atomized oil is injected into a chamber, where the oil is mixed with air, the mixture being heated by the exhaust gases which pass through a jacket surrounding the mixing chamber. Governing is done by regulating the quantity of the charge.

**WESTINGHOUSE CIRCULARS.**—Westinghouse Electric & Mfg. Co., Pittsburg, Pa. Paper; 7 x 10 ins.; illustrated.

Circular No. 1,031 describes belt-driven polyphase alternators delivering current at 7,200 alternations per minute and 220, 440, 1,100 and 2,200 volts. These machines are compounded by a current derived from a series transformer and passed through a commutator.

Circular No. 1,034 treats of direct-current engine-type 250-volt generators. Tables of dimensions and standard sizes are given.

**CONCRETE AND ASPHALT MIXING MACHINERY.**—Drake Standard Machine Works, 300 Jackson Boulevard, Chicago, Ill. Paper; 6 x 9 ins.; pp. 42; illustrated.

This is an interesting descriptive catalogue of machines in which horizontal shafts carry arms which stir the mixture and force it forward to the delivery chute. They may be used for mixing continuously or in batches. Conveyors may be used to deposit the concrete, and for street work there are portable mixers with conveyors depositing the concrete in place. The machines have been used on some of the track elevation work in Chicago. They are also adapted for mixing mortar.

### CONSTRUCTION NEWS.

#### CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Dec. 6.	Fire engine house.	New York, N. Y.	Nov. 29
Dec. 6.	Municipal building.	Pittsburg, Pa.	Dec. 5
Dec. 7.	Refrigerators, etc.	Ellis Island, N. Y.	Nov. 22
Dec. 8.	Rip-rap (2,800 tons).	Tompkinsville, N. Y.	Nov. 29
Dec. 8.	State capitol building.	Jackson, Miss.	Oct. 25
Dec. 10.	Sewers.	Suffolk, Va.	Nov. 22
Dec. 10.	Pipe sewers (7 miles).	Baton Rouge, La.	Nov. 29
Dec. 10.	Jail building.	St. Paul, Minn.	Nov. 22
Dec. 10.	Repairing schools, etc.	New York, N. Y.	Nov. 29
Dec. 10.	Macadam road.	Atlantic City, N. J.	Dec. 6
Dec. 10.	State canal work.	Albany, N. Y.	Dec. 6
Dec. 11.	Paving.	New York, N. Y.	Dec. 6
Dec. 11.	Post office building.	Kansas City, Kan.	Nov. 8
Dec. 11.	Bridgeway superstructure.	North Adams, Mass.	Nov. 22
Dec. 11.	Naval supplies.	Washington, D. C.	Nov. 22
Dec. 12.	Electric plant.	Versailles, O.	Nov. 15
Dec. 12.	Water-works, etc.	Versailles, O.	Nov. 15
Dec. 12.	Water and light bonds.	Versailles, O.	Nov. 15
Dec. 12.	Water filter plants, etc.	Philadelphia, Pa.	Nov. 29
Dec. 12.	Traveling crane.	Detroit, Mich.	Nov. 29
Dec. 12.	Sewer work.	New York, N. Y.	Dec. 6
Dec. 12.	Combination bridge.	Napa, Cal.	Dec. 6
Dec. 12.	Boiler plant.	Kings Park, N. Y.	Dec. 6
Dec. 12.	Highway bridge.	Urbana, Ill.	Dec. 6
Dec. 13.	Gun forgings.	Washington, D. C.	Dec. 6
Dec. 13.	Wiring building.	Rochester, N. Y.	Dec. 6
Dec. 13.	Hospital building.	Rochester, N. Y.	Nov. 29
Dec. 14.	Cold storage building.	Central Islip, N. Y.	Dec. 6
Dec. 14.	Ice plant.	Phoenix, Ariz.	Dec. 6
Dec. 14.	Wiring building.	Hudson, N. Y.	Dec. 6
Dec. 14.	Electric lighting.	Kansas City, Mo.	Dec. 6
Dec. 14.	Street improvements.	Omaha, Neb.	Dec. 6
Dec. 15.	Hospital pavilion.	Fort Slocum, N. Y.	Dec. 6
Dec. 15.	Hospital building.	Indianapolis, Ind.	Dec. 6
Dec. 15.	Removing wreck U.S.S. "Maine."	Havana, Nov. 15	Dec. 13
Dec. 15.	Sewer and water bonds.	New Orleans, La.	Sept. 13
Dec. 15.	Electric railway.	Matanzas, Cuba.	Oct. 18
Dec. 15.	Electric lighting.	Matanzas, Cuba.	Oct. 18
Dec. 15.	Gas lighting.	Matanzas, Cuba.	Oct. 18
Dec. 15.	Beacons (2).	Buffalo, N. Y.	Nov. 8
Dec. 15.	School building.	Santiago de Cuba	Nov. 15
Dec. 15.	Removing wreck.	"Alfonso XII." Cuba.	Nov. 22
Dec. 15.	School house.	Toledo, O.	Nov. 22
Dec. 15.	Packing.	New York, N. Y.	Nov. 29
Dec. 15.	Library building.	San Antonio, Tex.	Nov. 29
Dec. 15.	Heating system, etc.	Springfield, O.	Nov. 29
Dec. 17.	Electric lighting.	Oil City, Pa.	Nov. 22
Dec. 17.	Metal door frames.	New London, Conn.	Nov. 29
Dec. 17.	Bridge.	Waco, Tex.	Nov. 29
Dec. 17.	School house.	Steubenville, O.	Nov. 29
Dec. 17.	Hospital buildings.	Lakeland, Ky.	Nov. 29
Dec. 17.	Electric lighting.	Walla Walla, Wash.	Nov. 29
Dec. 17.	Fireproofing building.	Omaha, Neb.	Dec. 6
Dec. 17.	Water bonds.	Adams, N. Y.	Dec. 6
Dec. 17.	Headworks (w-wks).	Los Angeles, Cal.	Dec. 6
Dec. 17.	Water-works, etc.	Cienfuegos, Cuba.	Dec. 6
Dec. 17.	Yacht.	Washington, D. C.	Dec. 6
Dec. 18.	Steel bridges (2).	Helena, Mont.	Dec. 6
Dec. 18.	Court house.	Emporia, Kan.	Nov. 29
Dec. 18.	Electric plant.	Waterloo, Ill.	Nov. 29
Dec. 18.	Asphalt paving.	Cleveland, O.	Nov. 29
Dec. 18.	Traveling cranes.	Cincinnati, O.	Nov. 22
Dec. 18.	Sewers (3 miles).	Newport, Ky.	Nov. 22
Dec. 18.	Boilers (2).	Cleveland, O.	Nov. 22
Dec. 18.	Pumping engines (4).	Cincinnati, O.	Nov. 22
Dec. 20.	Pipe sewers.	Santa Barbara, Cal.	Nov. 22
Dec. 20.	Altering boat.	Norfolk, Va.	Nov. 22
Dec. 20.	Masonic temple.	Marietta, O.	Nov. 29
Dec. 20.	Electric lighting.	New York, N. Y.	Dec. 6
Dec. 20.	Electric lighting.	Dennison, Tex.	Dec. 6
Dec. 22.	Cast-iron pipe, etc.	Boston	Dec. 6
Dec. 22.	Naval building.	Philadelphia, Pa.	Dec. 6
Dec. 22.	Sewers.	Boston, Mass.	Dec. 6
Dec. 22.	Dredging (\$10,000 yds.).	Dry Tortugas, Fla.	Nov. 22
Dec. 22.	Bridge.	Stockton, Cal.	Nov. 8
Dec. 24.	Sidewalks.	Cincinnati, O.	Dec. 6
Dec. 24.	Steel recreation pavilion.	Yonkers, N. Y.	Dec. 6
Dec. 26.	Sewer conduit.	Cleveland, O.	Dec. 6
Dec. 26.	Army buildings (Samoa).	Washington	Nov. 22
Dec. 27.	U. S. building.	Blair, Neb.	Nov. 29
Dec. 27.	Library building.	Cheyenne, Wyo.	Nov. 29
Dec. 27.	Laying water mains.	Wilkesburg, Pa.	Dec. 6
Dec. 27.	Electric plant, etc.	Arkansas City, Kan.	Dec. 6
Dec. 27.	Library building.	Cheyenne, Wyo.	Dec. 6
Dec. 27.	Sewers.	Fort Mott, N. J.	Dec. 6
Dec. 29.	Jail building.	Merced, Cal.	Nov. 29
Dec. 31.	Electric railway.	Toronto, Ont.	Nov. 29
Dec. 31.	Insulating gloves.	Paris, France	Aug. 9
Dec. 31.	Steam heat schemes.	Malling Union, Eng.	Nov. 15
Dec. 31.	Motor.	Paris, France	Nov. 29
Jan. 2.	Cement (11,000 bbls.).	Little Rock, Ark.	Dec. 6
Jan. 2.	Electric plant.	Stavanger, Norway	Oct. 18
Jan. 3.	Electric lighting.	Ripon, Wis.	Nov. 29
Jan. 3.	U. S. building.	St. Cloud, Minn.	Dec. 6
Jan. 3.	Hydraulic dredge.	Detroit, Mich.	Dec. 6
Jan. 5.	U. S. building.	Altoona, Pa.	Dec. 6
Jan. 6.	Grading road.	Goldendale, Wash.	Nov. 1
Jan. 7.	Combination bridge.	Aberdeen, Wash.	Nov. 8
Jan. 7.	Heating plants.	Seattle, Wash.	Dec. 6
Jan. 8.	Coal cars (50).	Glasgow, Scotland	Dec. 6
Jan. 9.	County road (4½ miles).	Colusa, Cal.	Nov. 22



Jan. 9.	Pumping engine, Melbourne, Victoria.	Sept. 20
Jan. 10.	Court house, Linton, N. Dak.	Nov. 15
Jan. 12.	Sewage pumping plant, Boston, Mass.	Oct. 11
	Advertised, Eng. News, Oct. 11 and 18.	
Jan. 15.	Power plants, Christiania, Norway.	Nov. 29
Jan. 15.	Court house, Danielsville, Ga.	Dec. 6
Jan. 16.	Bridges (5), Chicago, Ill.	Nov. 22
	Advertised, Engineering News, Nov. 22.	
Jan. 28.	Mining concessions, Russia.	Nov. 8
Feb. 1.	Electric tramway, Calvados, France.	Oct. 18
Feb. 1.	Protected cruisers, Washington, D. C.	Dec. 6
Feb. 5.	Water-works, Laurel, Miss.	Dec. 6
	Advertised, Eng. News, Dec. 6 and 13.	
Feb. 6.	Railway cars, etc., (Chill), Washington.	Nov. 29
Feb. 15.	Water supply, Grand Rapids, Mich.	Nov. 22
	Advertised, Eng. News, Nov. 22 to Feb. 7.	
Feb. 21.	Powder works, Rio de Janeiro, Brazil.	Sept. 20
Feb. 28.	Engines (Wellington, N.Z.), London, Eng.	Dec. 6
Mar. 1.	Rice drying machinery, Novaro, Italy.	Sept. 27
Mar. 25.	Sewerage system, Basford, Eng.	Sept. 13
Mar. 25.	Water-works, Mondovi, Wis.	Oct. 25
May 10.	Harbor improvements, Rosario, Argentina.	Nov. 1
Aug. 31.	Sewerage system, St. Petersburg, Russia.	Dec. 6
No date.	Town hall, Riga, Russia.	Nov. 29

**RAILWAYS.**

**APALACHIA SHORT LINE.**—W. W. Baggs, Supt., Apalachia, N. C., writes us that four miles of new track has been laid on this line, and work on its extension will probably be completed in 30 days.

**BUFFALO, ROCHESTER & PITTSBURG.**—The officials of this company are reported to have been over the route of the proposed air line from New Castle, Pa., to Butler, with a view of determining the advisability of building the projected road. A tract of land is said to have been acquired by the company near Cascade Park, where a passenger and freight station will be erected and large yards established. A. G. Yates, Pres., and J. M. Floesch, Ch. Engr., Rochester, N. Y.

**CHICAGO, MILWAUKEE & ST. PAUL.**—It is announced that the directors of this company have decided to issue \$3,000,000 of new bonds to provide for improvements to the physical condition of the road, and for additional equipment.

**COLORADO & CANADIAN VALLEY.**—A territorial charter has been granted to this company in Guthrie, Ind. Ter., with a capital stock of \$10,000,000, to build a road to run from Cripple Creek, Colo., to a point on the Red River, in the Chickasaw Nation, Ind. Ter., near the mouth of the Wichita River. W. S. Sherman, El Reno; Chas. Hinkle, Pueblo, Colo., and Frank Hendry, Boston, Mass., are interested. The company's headquarters will be at El Reno, Okla. Ter.

**CORVALLIS & SOUTHERN.**—Dr. H. S. Wallace, Junction City, Ore., is reported to have said that bonds to the amount of \$400,000 have been placed by the company in New York city to build the company's projected line from Corvallis, Ore., to Eugene City, a distance of 40 miles.

**DES MOINES, IOWA FALLS & NORTHERN.**—E. S. Ellsworth, Pres., Iowa Falls, Ia., wrote us Nov. 24 that contracts for constructing the company's 74 miles of railway would probably be let within 30 days. The route is partly surveyed and the construction capital partly secured. B. Schreiner, Ch. Engr., Des Moines, Ia.

**EDGEWATER TERMINAL.**—Incorporated in Missouri on Nov. 19 to build a terminal railway in Kansas City, eight miles in length, to extend along the bank of the Missouri River from the mouth of the Kaw River to the mouth of the Blue River, for the purpose of affording an entrance to all new railways that are projected to pass through Kansas City. The company is an auxiliary corporation of the Federal Investment Co. The company has not yet secured all the right of way, but has permission to condemn such property as it needs for tracks and terminals. Construction will be started within six months. H. M. Merrillwether, Pres., Kansas City.

**GREAT EASTERN.**—Reports state that the work on this line is to be pushed to a rapid completion. The road will embrace about 58 miles of track, of which about 18 miles of the grading has been finished. It is expected to have the entire line completed by spring. The line will extend from Raleigh to Snow Hill, and will be a part of the Vanderbilt system.

**ILLINOIS CENTRAL.**—A meeting of the stockholders will be held on Jan. 26 for the purpose of acting on the propositions to provide the necessary appropriations for the purchase of additional cars and locomotives, the construction of additional second tracks, side tracks and station and terminal facilities, the elimination of grade crossings, and other improvements. A. G. Hackstaff, Secy. Bd. Dir., Chicago.

**ILLINOIS CENTRAL.**—The contract for the construction of the new yards at Jackson, Miss., has been let to J. J. Baxter. The amount involved is about \$75,000, and the work is to be completed within eight months.

**LOGGING.**—The Bay City & Sullivan Timber Co., of Mobile, Ala., has surveyors at work locating a logging road from their pine timber lands in Monroe county to the Alabama River, to be about 25 miles in length. The logs will be floated down the Alabama River to the company's mills at Mobile, Ala.

**LOUISVILLE & PORT ROYAL.**—This company has been incorporated in Tennessee with \$100,000 capital stock, to construct a railway from Louisville to Port Royal, S. C. Geo. R. Wright, John S. Bowden and W. J. Caudin are interested.

**NASHVILLE, FLORENCE & NORTHERN.**—The city council of Nashville, Tenn., has decided to submit the proposition of subscribing \$1,000,000 and aid the construction of this projected line, to popular vote. The road will run from Litchfield, Ky., to Florence, Ala., with an ultimate extension to Granada or Meridian, Miss.

**ONTARIO.**—The provincial government has been requested to grant an appropriation of \$2,500 towards the building of a spur line of railway from Burk's Falls to the head of navigation on the Magnetawan River, a distance of 1 1/2 miles. Two bridges will be necessary. The total cost will be about \$40,000.

**PORT ARTHUR, HOUSTON & WESTERN.**—Chas. F. Ashley, Port Arthur, Tex., informs us that the rights of way for the company's 90 miles of road has been practically secured, excepting into Houston, Tex. Mr. Ashley states that it is hoped to begin construction in about 60 days, but in all probability actual work will not be started for four or five months. W. McDonald, Pres., Port Arthur. The Chief Engineer is not yet appointed.

**SAN FRANCISCO & SAN JOAQUIN VALLEY.**—This company has secured a lease of about 35 acres of water front at San Francisco, Cal. It provides for the building of a sea wall 200 ft. wide and 2,380 ft. long, new wharves, docks, freight sheds and terminals.

**ST. LOUIS, CAPE GIRARDEAU & SOUTHERN.**—A charter has been granted to this company by the Secretary of State of Missouri, with a capital stock of \$450,000, to construct and operate a standard-gauge railway between

Cape Girardeau and Perryville, connecting the Houcks, Mississippi & Arkansas R. R. at Cape Girardeau with the Chester, Perryville & Ste. Genevieve Ry. at Perryville, a distance of 40 miles. Louis B. Houck, Chas. T. Lewis, and Albert O. Phelan, Cape Girardeau, Mo., are interested.

**TENNESSEE.**—Geo. S. Parker & Co., Nashville, wish to correspond with contractors regarding the construction of from 10 to 20 miles of railway, to receive compensation upon the completion of the work. The company plans to build from 60 to 70 miles of road. The company's New York office is at 89 Reade St.

**TEXAS & PACIFIC.**—It is stated that the Newroads branch will be extended in the near future from Newroads, La., to Red River Landing, a distance of about 30 miles. R. S. Wathen, Ch. Engr., Dallas, Tex.

**WABASH.**—O. D. Ashley, Pres., is reported as stating that the company will begin the construction of the new line between Toledo and Montpelier, O., next spring. Surveys have been made between the two points, which is a distance of about 57 miles. The cost will be about \$30,000 a mile. Bonds for the construction and equipment have been authorized by the directors. W. S. Lincoln, Ch. Engr., St. Louis, Mo.

**WESTERN MARYLAND.**—The officials of this company are contemplating laying an additional track on the Potomac Valley branch of this road, which extends from Williamsport, Md., to Cherry Run. The new track will be to facilitate the handling of freight traffic. H. R. Pratt, Asst. Engr., Baltimore, Md.

**WICHITA & SOUTHERN.**—J. P. Wheeler, Pres., Wichita, Kan., informs us that contracts for building the company's line of 230 miles will be let soon after Jan. 1. A reconnaissance survey is all that has been done so far towards construction. H. L. Jackson, Ch. Engr., Wichita. (An itemized estimate of the construction and equipment of this road by Chief Engineer Jackson was noted in our issue of Feb. 1, under Railways.)

**STREET AND ELECTRIC RAILWAYS.**

**PORTLAND, ME.**—Local papers state that the Westbrook, Windham & Naples Electric Ry. will petition the legislature for permission to extend its tracks into Gorham. J. C. Scates, Pres., Westbrook.

**WALTHAM, MASS.**—The board of aldermen has granted the Waltham St. Ry. a right to lay tracks in this city.

**WORCESTER, MASS.**—Local papers state that the Worcester Consolidated St. Ry. is planning to extend its Quinsigamond line to the city line. The extension will be through Greenwood St., about 1 1/2 miles in length. Francis H. Dewey, Pres.

**NORWICH, CONN.**—Chandler & Palmer, Civil Engrs., Norwich, have started a survey of the proposed trolley line from Norwich to Jewett City. Norwich capitalists are said to be behind the enterprise.

**ALBANY, N. Y.**—It is stated that the Albany & Hudson Electric Ry. will be extended to Poughkeepsie. H. A. Benedict, Supt., Hudson.

**WHITE PLAINS, N. Y.**—The Port Chester St. R. R. Co. will mortgage its property to the sum of \$200,000, and the proceeds will be used in improving the line owned by the company in Harrison and Rye.

**NEWARK, N. J.**—The trolley line in Elizabeth, Rahway and Plainfield, with the exception of the North Jersey St. Ry. Co.'s system in Elizabeth, have been consolidated under the name of Elizabeth, Plainfield & Central Jersey Ry. The new company is capitalized at \$3,000,000. The consolidated system will include about 60 miles of track, and further extensions are contemplated. David Young, Pres.

**CARLISLE, PA.**—The Cumberland Traction Co. has surveyed a route from Mechanicsburg to Hagerstown on which work will be started at once. It is proposed to extend from Hagerstown to Camp Hill, making connections with the Bridgeport terminus at White Hill. J. O. Hara, Supt., Carlisle.

**HARRISBURG, PA.**—The Lingleston & Blue Mt. St. Ry. Co. has been chartered with \$100,000 capital stock, to build an electric line from Progress to Lingleston, to connect with the Harrisburg Traction Co.'s line.

**PHILADELPHIA, PA.**—It is reported that work is to be started on the Danville, Bloomsburg & Berwirth Trolley line within 30 days.

**STRASBURG, PA.**—B. B. Gonder is interested in a projected railway between this place and Lance. It is proposed to use gasoline instead of electricity for motive power, and information is wanted regarding the advisability of so doing.

**BELAIR, MD.**—John H. Reckard, Pres. Belair & Havre de Grace Electric R. R., writes us that the contract for building the company's line will be let in a few weeks. Most of the rights of way are obtained. The line will run through Churchville, Carson, Aberdeen, Arondale and Level, besides those towns named in the title.

**ELKTON, MD.**—The contract for constructing the Cherry Hill, Elkton & Chesapeake City Electric Ry. was let on Dec. 2 to Thomas Deegan & Co., 540 Drexel Bldg., Philadelphia, at \$126,400. The work will be started as soon as possible and will be completed within eight months.

**GLENVILLE, W. VA.**—The South Penn Oil Co., it is said, proposes to construct an electric railway from Burnsville to the mouth of the Sand Fork, about 10 miles distant.

**PARKERSBURG, W. VA.**—C. H. Shattuck, Pres. Parkersburg Gas, Electric Light & St. Ry. Co., informs us that the survey for the extension to Marietta, O., a distance of 13 miles, is nearly completed, and the contract for construction will be let when finished.

**ROME, GA.**—The Rome City Electric St. Ry. will extend its line to Lindale, a distance of four miles. It is said that the rights of way are secured, and that work will be started at an early date. Seymour Cunningham, Pres.

**FINDLAY, O.**—The Lima & Findlay Electric Ry. has been incorporated with \$20,000 capital stock, to build an electric road between those towns. Theo. D. Rohb, J. D. S. Neely and Loula Koch are interested.

**TOLEDO, O.**—The Toledo, Adrian & Jackson Ry. has been organized to build an electric railway from this city to Adrian, and possibly Jackson. It is stated that the right of way is secured, and grading is under way. Luther Allen, Cleveland, and A. P. Southworth, Adrian, are interested.

**YOUNGSTOWN, O.**—The New Castle & Beaver Falls St. Ry. has been incorporated with a capital stock of \$100,000, to build 16 1/2 miles of street railway, which will extend through Youngstown, Sharon and Beaver Falls. Surveys are now under way. Electricity will be used as motive power. Wm. Fultz, Pres., New Castle, Pa.

**DETROIT, MICH.**—The surveys for the Pontiac & Flint Electric Ry., between Holly and Flint, have been completed and contracts will be let for that section by Dec.

10. Grading between Pontiac and Clarkston is nearly completed. The section between Holly and Flint is expected to be graded this winter. The contracts for the powerhouse will not be let at present. Standard Engineering Co., Engrs., Detroit.—Reports state that the Pontiac & Flint Electric Ry. was organized in Saginaw on Nov. 26 with a capital stock of \$50,000. Wm. Stoddard, Minneapolis, Minn.; C. C. Ancier and W. S. Emrick, Saginaw, are given as incorporators. C. A. Beardsley and L. Duncan, Detroit, are the promoters.

**JUNCTION CITY, KAN.**—H. H. Zeigler, Secy. Electric Ry., Light & Ice Co., writes us that the contracts for building the company's five-mile electric line from this city to Fort Riley will be let as soon as the franchise is granted by this city. The capital has been secured and surveys and rights of way partly completed.

**ELK CITY, NEB.**—G. R. Williams, Elk City, writes us that the rights of way for the Omaha & Fremont Motor Co.'s line are now before the county commissioners for approval. The capital is partly secured, and contracts will be let for construction when the balance is secured. It is proposed to interest local capital as much as possible, and issue bonds for the balance. The road will run through Elk City, Irvington, Fowler and Benson, besides those named in the title, giving a total length of 30 miles. Isaac Noyes, Pres., Elk City.

**ST. LOUIS, MO.**—Louis J. Singer, Solomon Boehm and others have petitioned the county court for a franchise for an electric street railway over the Gravois road from the western city limits to the Mount Sinal cemetery, in the county.

**SULPHUR, IND. TER.**—The Sulphur Springs R. R. Co. has been chartered. The preliminary survey has been made and location is now being pushed. Eugene White, Pres., South McAlester; Theo. H. Ellis, Treas., and C. H. King, Ch. Engr., Sulphur Springs.

**SAN BERNARDINO, CAL.**—It is stated that the projected electric railway from the Arrowhead Springs to this city will be built, the Green Hotel having come under new ownership.

**ELECTRIC LIGHT AND POWER.**

**LYNN, MASS.**—A resolution has, it is said, been introduced into the council providing for the erection of a municipal plant.

**CLYDE, N. Y.**—Press reports state that the village trustees have granted a franchise to Charles A. Lux for a gas and electric plant.

**NEW YORK, N. Y.**—Bids are asked by the department of correction, 148 East 20th St., until Dec. 20 for furnishing electric lighting for the city prison for 1901, and gas for the city prison and for the correction institutions on Blackwell's Island. Francis J. Lantry, Comr.

**ROCHESTER, N. Y.**—The plant of the Citizens' Light & Power Co. was recently destroyed by fire; loss, about \$50,000. P. V. Crittenden, Pres.; H. Willis, Secy.

**SKANEATELES, N. Y.**—This village, at a special election, recently voted to appropriate \$1,000 for a municipal plant.

**DILLON, S. C.**—Reports state that this city contemplates installing a plant and water and sewerage systems. S. S. Rozier is said to be interested.

**JASPER, FLA.**—B. E. Lennard, Pres., writes us that an electric plant, ice plant, and water-works will be erected in the next six months at a cost of about \$20,000.

**CROSSVILLE, TENN.**—It is stated that the Crossville Electric Light & Power Co. will erect a new plant to cost about \$2,000.

**NASHVILLE, TENN.**—J. M. Head, Mayor, writes us that no engineer can be engaged for the proposed municipal plant until the council authorizes the board of public works to commence construction, which will probably be done about Jan. 1. Bids will be received early in the spring for a plant to run 400 2,000 c. p. arc and 5,000 incandescent lamps and cost about \$150,000.

**JEFFERSONVILLE, IND.**—The council has, according to reports, voted against the proposed purchase of the plant of the Jeffersonville Light & Water Co.

**RICHMOND, IND.**—The plant of the Richmond Light, Heat & Power Co. is reported to have been damaged by fire; loss, about \$5,000. Dr. J. E. Lownes, Pres., Dayton, O.; J. W. Roney, Secy.—James B. Nelson, Baldwin Block, Indianapolis, has completed plans for the proposed municipal plant, according to reports.

**MENDON, MICH.**—The council is said to have purchased the plant of the Mendon Electric Light Co. for \$5,500.

**LIBERTYVILLE, ILL.**—The village board has granted a franchise to Ernest W. Freeman, of Chicago, to erect a plant, according to reports.

**BURLINGTON, IA.**—Henry E. Hauhold, Deputy Cy. Clk., writes us that the question of a municipal light contract is being advocated. There is also considerable talk of replacing the arc lights with Welshach.

**OSKALOOSA, IA.**—The council has granted a franchise to the Oskaloosa Street Ry. & Land Co., to construct a line from Oskaloosa to Beacon and also to erect an electric light plant.

**ARKANSAS CITY, KAN.**—Bids are asked until Dec. 27 for a plant, water-works, storehouse and cold-storage plant at Chillico, Okla. Ter. W. A. Jones, Comr. Indian Affairs, Department of the Interior, Washington, D. C.

**LINCOLN, NEB.**—Adna Dohson, Cy. Engr., writes us that an ordinance is now before the council calling for a special election to vote on the question of issuing \$50,000 in bonds for erecting a plant.

**BIG STONE, S. DAK.**—Press reports state that the question of erecting a plant is being considered.

**BADEN, MO.**—The council is said to have passed an ordinance appropriating money for erecting a municipal plant.

**KANSAS CITY, MO.**—Bids are asked until Dec. 14 for furnishing the city with light. Wm. Weston, Purchasing Agt.

**ST. LOUIS, MO.**—The house of delegates has passed a resolution providing for the installation of a municipal plant at the Chain of Rocks. Edward Flad, Water Comr., estimates the cost at about \$37,500.

**SULLIVAN, MO.**—The Hodgman Mfg. Co. informs us that it will not install an electric light plant at present.

**DENNISON, TEX.**—Bids are asked by the city secretary until Dec. 20 for furnishing the city with from 50 to 100 2,000-c. p. arc lights.

**PORT ARTHUR, TEX.**—The council has granted a franchise to Charles Gates to erect a plant.

**OTTAWA, ONT.**—Press reports state that the board of public works is considering the question of installing electric lights in the parliament building.

**SWANSEA, ONT.**—The Swansea Forge Co. will install an electric plant, according to reports.



**WELLAND, ONT.**—Reports state that the plant of the Welland Electric Light Co. was recently damaged by fire; loss, about \$5,000. J. Wilkinson, Pres.

**ROSSLAND, B. C.**—It is stated that the West Kootenay Power & Light Co. will improve its plant, at a cost of about \$150,000.

**SPRINGHILL, N. S.**—The council is said to be considering the question of extending and improving the municipal plant.

### BRIDGES.

**SALMON FALLS, N. H.**—The selectmen have awarded the contract for completing the culvert over McIntire's Brook to Joseph Ross, at \$1,300.

**WEBSTER, MASS.**—W. O. Rugg, Engr., Worcester, has been engaged to draw plans for the abolition of the Main St. grade-crossing, and will begin the surveys in a few days. A special town meeting will be called to consider the plans.

**CLARION, PA.**—The Phoenix Bridge Co., Phoenixville, has received the contract for building the state bridge over the Clarion River, at \$35,000. Herman Laub, Pittsburg, will superintend the construction.

**KNOXVILLE, PA.**—Reports state that the iron bridge in the vicinity of this place owned by the Buffalo & Susquehanna R. R., was recently swept away by high water.

**MOUNT CARMEL, PA.**—R. A. Simmons, Pottsville, is said to have received a contract for constructing a steel trestle at this place for the Shamokin & Mt. Carmel Electric Ry. Co. The trestle will be 35 ft. high, and will contain about 300 tons of steel. It will contain 1,000 lin. ft.

**PITTSBURG, PA.**—Local papers state that plans for the Pittsburg, Fort Wayne & Chicago R. R. bridge across the Allegheny River at 11th St., have been completed. The new bridge will be an addition to the present structure, on the north side, but the plans include the rebuilding of the old structure. The plans call for a double-decked four-tracked steel structure, with two tracks below and two on the upper deck. The bridge will be 35 ft. above the river and will have four piers in the river, the two middle piers being 320 ft. apart, affording channelway. One of the piers of the old structure will be removed and the two spans resting on it will be rebuilt. Work on the changing of the superstructure of the present bridge will be started early in January, and the new bridge will be started soon after.

**ATLANTA, GA.**—The following bids were received by R. M. Clayton, Cy. Engr., Nov. 26, for erecting a steel viaduct over the railway tracks at Whitehall St., to be 275.5 ft. in length, having one span 90 ft., four spans of 30 ft., one of 27.5 ft., and one of 38 ft. in length: (1) being for metal work complete, (2) 90-ft. span, (3) approaches, (4) brick paving, (5) sidewalk bridge, (6) sidewalk approaches: Youngstown Bridge Co., (1) \$37,265, (2) \$12,715, (3) \$24,540; Alabama Bridge & Iron Co., (1) \$35,965, (2) \$12,320; Virginia Bridge & Iron Co., (1) \$32,800; Pennsylvania Bridge Co., (1) \$36,400, (2) \$14,900; Grant Wilkins, two bids: First—(1) \$57,700, (2) \$18,000; second—(1) \$54,800 (accepted), (2) \$15,800; Brackett Bridge Co., (1) \$36,862, (2) \$16,372; Jas. A. Backus (1) \$30,080, (3) \$25,277; General Contracting Co., (3) \$19,256; Gude & Walker, (3) \$23,751; F. G. Power, two bids, (3) \$21,771 and \$19,638, (4) \$2,461, (5) \$1,080, (6) \$1,380; Venable Bros., (4) \$2,742; Atlanta Tile Co., (5) \$1,058, (6) \$628; J. W. Libby, agent, (3) \$21,192; W. H. Harris, (3) \$21,442; Southern Paving & Contracting Co., (4) \$2,930. The bridge committee has awarded the contract to Grant Wilkins, Atlanta, at \$54,800, for the viaduct complete, with approaches. Of this amount the railways will pay \$15,800, and the city the remaining \$39,000.

**HARRISBURG, TENN.**—The contract for building a steel bridge across the Clinch River at this place, has been awarded by the county commissioners to the Structural Steel & Iron Co., Baltimore, Md. The contract price is in the neighborhood of \$10,000.

**TAZEWELL, TENN.**—J. T. Fugate, Tazewell, writes us that the county court will meet early in January to decide on the proposition of building a steel bridge over Powell's River, near this place, to have two spans and a width of 24 ft.

**CLEVELAND, O.**—Plans have been completed by City Engineer Ritchie for the elimination of grade-crossings at Union St., and has submitted them to the Erie and Pennsylvania R. R. companies. The cost of the work is estimated at \$150,000, of which the railway companies will pay 65%.

**BLUFFTON, IND.**—Reports state that the contract for building a new bridge across the Mississinewa River, between Jonesboro and Gas City, to be 220 ft. long, has been let to the Indiana Bridge Co., at \$25,000.

**CHICAGO, ILL.**—The lowest bid received by Commissioner of Public Works McGaan for rebuilding and repaving the pillars of the Wells, Washington, Madison, 12th and Deering St. bridges, was submitted by Fitzsimons & Connell, at \$30,000.

**URBANA, ILL.**—Bids are asked until Dec. 12 for constructing a 64-ft. highway bridge on stone masonry. For plans and specifications address Ira O. Baker, Engr., Champaign.

**MILWAUKEE, WIS.**—It is proposed to issue bonds to the extent of \$275,000, for the construction of the Grand Ave. viaduct. The following architects have submitted plans to the Architectural Club for the ornamentation of the Grand Ave. bridge: Carlton, Gilbert & Demar, Cecil Chapman, Peter Brust, Howard Russell, C. L. Linde, W. N. Schuchardt, C. F. Ringer and W. M. Kozick. The plan submitted by Mr. Chapman was considered the best by Mr. Armand D. Koch, chief of critics.

**MOUNT PLEASANT, IA.**—The board of supervisors has decided to locate a new steel bridge at Welmer's ford, about one mile north of Rome. The structure will cost about \$2,000.

**RAPIDAN, MINN.**—Bids are asked until Dec. 8 for building a stone culvert in this town, according to reports. O. M. Reynolds, Town Clk.

**STILLWATER, MINN.**—The council is considering the question of building a new bridge across the St. Croix River between this city and Houlton, estimated to cost \$150,000. No plans have as yet been prepared.

**PAOLA, KAN.**—Bids are asked until Dec. 7 for constructing two iron bridges with stone abutments. L. Flanagan, County Clk.

**HELENA, MONT.**—Bids are asked until Dec. 18 for building a steel bridge across Du Bray Creek and one over Smith Creek, being five and seven miles respectively from Augusta. Both bridges will be 60 ft. in length, having one span resting on tubular piers 3 ft. in diameter, according to reports. E. Black, Chn. Bd. County Comrs.

**MARYSVILLE, CAL.**—The contract for building a new iron and steel bridge over Dry Creek has been let to the Dundon Bridge & Construction Co., San Francisco, at \$4,973.

**SANTA BARBARA, CAL.**—It is reported that a new bridge is needed at Naples.

**NAPA, CAL.**—Bids are asked until Dec. 12 for constructing a combination bridge over Pope Creek. N. W. Collins, Clk., Bd. County Supervisors.

**SANTA ANA, CAL.**—The city trustees have awarded the contract for the construction of a new bridge over Santiago Creek to C. McNeill, Santa Ana, at \$1,600.

**HAILEY, IDAHO.**—The contract for building the new bridge across the Wood River at Bullion St., has been let to the Gillette-Herzog Mfg. Co., Minneapolis, Minn., at \$3,785, according to reports.

**ILOILO, PANAY, P. I.**—Reports state that the government proposes to expend about \$2,000,000 in building bridges, roads and other public improvements on this island.

### BUILDINGS.

**ROCHESTER, N. H.**—William P. Walker & Son, 17 Custom House St., Providence, R. I., are said to have prepared plans for a 3-story brick schoolhouse here to cost about \$30,000.

**BROOKLYN, N. Y.**—The following bids were received Dec. 4 by the police department for a new station house at Liberty and East New York Aves.: T. G. Carlin, \$51,211; Rutan, Kenny & Henningham, \$81,974; Wm. H. Post, \$86,400; P. Cleary, \$87,000; T. Cockerill & Son, \$94,399.

**CENTRAL ISLIP (L. I.), N. Y.**—Bids are asked until Dec. 14 for erecting a cold-storage building at the Manhattan State Hospital, as stated in our advertising column. Henry E. Howland, Pres. Bd. Mgrs., 1 Madison Ave., New York.

**FORT SLOCUM, N. Y.**—Bids are asked until Dec. 15 for constructing a pavilion hospital here. C. R. Tyler, Q. M.

**HUDSON, N. Y.**—Bids are asked until Dec. 14 for electric wiring at the guardhouse at the house of refuge for women. Herbert E. Mills, Pres. Bd. Mgrs.

**NEW YORK, N. Y.**—Bids are asked by the department of sewers, 21 Park Row, until Dec. 12 for improving sewers in 23d St., for a new sewer in Ave. A, for altering sewers in 55th St., and also sewer improvements in Bronx and Queens Boroughs. Jas. Kane, Comr.

**NEW YORK, N. Y.**—Plans have been filed by the Yorkville Independent Ice Co., 981 Madison Ave., for a 3-story brick factory and storage house, 32 x 120 ft., at 82d St., near Ave. B, to cost about \$100,000. Louis Brown, Arch., 41 Union Square; by Mrs. E. Honenburger, 682 East 159th St., for two 5-story brick flat and office buildings, 25 x 82 ft., at 682 and 684 East 159th St., to cost about \$22,500. H. Honenburger, Arch., 802 Melrose Ave.; by Pollack & Aransky, 396 Grand Ave., for a 6-story brick flat house, 40 x 63 ft., at 29 and 31 Ridge St., to cost about \$40,000. Michael Bernstein, Arch., 245 Broadway; by Thomas D. Malcom, 648 Melrose Ave., for a 5-story brick tenement house, 94 x 69 x 102 ft., at Westchester and Bergen Aves., to cost about \$65,000. Harry T. Howell, Arch., Brook Ave., near 138th St.; by A. Hogenauer, 348 Willis Ave., for two 5-story brick tenements, 25 x 81 ft., at Amsterdam Ave., near 164th St., to cost about \$22,000. Henry Anderson, Arch., 1181 Broadway; by Mary L. George, 843 Garden St., Hoboken, N. J., for a 16-story brick and stone hotel building, 32 x 75 and 86 ft., at 1296 and 1298 Broadway, to cost about \$250,000. H. J. Hardenburgh, Arch., 10 West 23d St.; by Spielberger & Steiner, 254 East Seventh St., for a 6-story brick flat, 25 x 77 ft., at 206 East Seventh St., to cost about \$28,000. M. Bernstein, Arch., 245 Broadway; by Cornelius W. Luyster, 135 West 92d St., for a 5-story brick dwelling, 33 x 68 ft., at 86th St., near Columbus Ave., to cost about \$70,000. John H. Duncan, Arch., 21 West 24th St.

**NEW YORK, N. Y.**—Bids are asked by the board of education, 59th St. and Park Ave., until Dec. 10 for installing an electric lighting plant in public school No. 134, Brooklyn, and for alterations to public school No. 17, Richmond Borough.

**ROCHESTER, N. Y.**—Bids are asked until Dec. 13 for electric wiring at the nurses' home at the Rochester State Hospital. Frederick Cort, Pres. Bd. Mgrs.

**TOMPKINSVILLE (S. I.), N. Y.**—The following bids were received Nov. 30 by Lieut.-Col. D. P. Heap, U. S. Engr., for erecting an extension to the office building at the lighthouse station, as advertised in Engineering News, (1) being for work as per plans and specifications and (2) additional price for furring strip and expanded metal lathing or its equivalent: Randolph & Baer, 541 Head Bldg., Philadelphia, (1) \$25,768, (2) \$300; Michael O'Sullivan, 189 55th St., Brooklyn, N. Y., (1) \$26,480, (2) \$200; Cort Construction Co., 39 Cortlandt St., New York, (1) \$29,300; Henry Spruck & Son, Stapleton, N. Y., (1) \$29,500, (2) \$350; L. L. Leach & Son, Chicago, (1) \$29,500, (2) \$860; Campbell & Dempsey, Kingston, N. Y., (1) \$30,900, (2) \$1,100; R. H. Hood & Co., New York, (1) \$31,500, (2) \$1,100; S. S. Smith, 39 Cortlandt St., New York, (1) \$31,900; Bunn & Nass, New York, (1) \$33,605, (2) \$325; John Seaton & Son, New Brighton, N. Y., (1) \$33,833, (2) \$300; Phillip Wolf & Son, Stapleton, N. Y., (1) \$35,436, (2) \$200; Geo. L. Walker, New York, (1) \$35,500, (2) \$500; John Milnes, Port Richmond, N. Y., (1) \$36,660, (2) \$110.

**ALTOONA, PA.**—Bids are asked until Jan. 5 for the construction (except heating apparatus, electric conduits and wiring) of the U. S. building here. James K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C.

**PHILADELPHIA, PA.**—Bids are asked until Dec. 22 for constructing a brick and steel building, 109 x 52 ft., at the League Island navy yard. M. T. Endicott, Ch. Bureau Yards and Docks, Navy Dept., Washington, D. C.

**PHILADELPHIA, PA.**—Howard Hagar, 1616 Thompson St., has prepared plans for a chapel and parochial school building at 70th Ave. and Old York Road, to cost about \$35,000.—Cope & Stewardson, 320 Walnut St., have prepared plans for a large residence at 17th and Locust Sts.

**PITTSBURG, PA.**—It is stated that J. P. Bailey, 331 Sixth Ave., is preparing plans for a 3-story brick apartment house, about 167 x 48 ft., at Melton and Jackson Sts., to cost about \$30,000.—F. J. Oesterling, 701 Times Bldg., has completed plans for the new morgue building at Old and Sixth Aves.

**PITTSBURG, PA.**—Bids are asked by Maconbray & Co., 326 Fourth Ave., until Dec. 6 for erecting a municipal building for Esplan Borough.

**WASHINGTON, D. C.**—Bids are asked by the district commissioners until Dec. 8 for erecting a dead house at the Washington Asylum.

**ATLANTA, GA.**—It is stated that J. G. Trullit, of La Grange will erect an apartment house on Peachtree St., to cost about \$260,000.

**DANIELSVILLE, GA.**—Bids are asked until Jan. 15 for erecting a new courthouse building. J. N. Boggs, Ordinary.

**SAVANNAH, GA.**—The plans of Frank P. Milburn, Independence Square, Charlotte, N. C., have been accepted for the new union depot, to cost about \$250,000.

**VICKSBURG, MISS.**—We are informed that W. L. Trowbridge, Mayor, has asked for plans for a new city hall building, to cost about \$50,000.

**NASHVILLE, TENN.**—Brown & Brown, 126 North Spruce St., write us that plans have not yet been completed for the new 2-story brick depot, 150 x 300, for the Tennessee Central R. R. here, to cost about \$200,000. The erection of the depot depends upon the result of the municipal election, to be held Dec. 15.

**CINCINNATI, O.**—C. Landheger has filed plans for a 5-story brick flat house on East Court St., near Main St., to cost about \$40,000.

**CLEVELAND, O.**—We are informed that the contract for the masonry work for the 3-story brick apartment house, 100 x 214 ft., on Wade Park Ave., near Mary St., to cost about \$90,000, for the L. W. Mackenzie Realty Co., has been let to Henry Paul, for the carpenter work to Charles Walker, and for the plumbing work to P. F. McMahon & Co. The other contracts have not yet been let.

**INDIANAPOLIS, IND.**—Bids are asked by the board of trustees until Dec. 15 for erecting a hospital for the sick insane at the Central Hospital for the Insane.

**MARION, IND.**—Louis H. Gibson, Hartford Block Indianapolis, is said to be preparing plans for a 4-story brick hotel building at Branson and Fifth Sts., for Berens Norton, to cost about \$70,000.

**CHICAGO, ILL.**—The Chicago City Ry. Co. is said to be considering the question of erecting a number of car barns on Wentworth Ave., in Auburn Park, to cost about \$100,000.—It is stated that Martin Emmerich, Pres. Chicago Union Pressed Brick Co., will erect an apartment house at Michigan Boulevard and 51st St., to cost about \$200,000.

**TAYLORVILLE, ILL.**—J. S. Michels, County Surv., writes us that bids have not yet been asked for erecting the proposed new courthouse. Bids were asked until Dec. 4 for removing the old building.

**MERRILL, WIS.**—The council is said to have decided to erect a new high school building to cost about \$10,000.

**PORT WASHINGTON, WIS.**—The county board has decided to issue \$50,000 in bonds for erecting a new courthouse.

**CHARLES CITY, IA.**—The board of supervisors has decided to erect a new jail building, according to reports.

**INDIANOLA, IA.**—Proudfoot & Bird, 320 Fifth St., Des Moines, write us that plans are now being prepared for a 2-story brick assembly hall for Simpson College, 70 x 100 ft., to have steam heat and electric lights and cost about \$20,000. Contracts will be let in 1901.

**AUSTIN, MINN.**—W. T. Turner, Chamber of Commerce Bldg., St. Paul, writes us that the new hotel building here will be of stone, 4 stories, 72 x 72 ft., with steam heat and electric lights, and cost about \$40,000.

**ST. CLOUD, MINN.**—Bids are asked until Jan. 3 for the construction (except heating apparatus, electric wiring and conduits) of the U. S. postoffice building here. James K. Taylor, Supv. Arch., Treasury Dept., Washington.

**OMAHA, NEB.**—Bids are asked until Dec. 17 for the carpenter work and fireproofing of the new high school building on Capitol Hill. J. F. Burgess, Secy. School District.

**CHEYENNE, WYO.**—Bids are asked until Dec. 27 for erecting a public library building here. Patton, Fisher & Miller, Archs., 115 Monroe St., Chicago, Ill.

**DENTON, TEX.**—The county commissioners have decided to issue \$74,000 in bonds for erecting a new courthouse.

**SEATTLE, WASH.**—Bids are asked by the board of directors until Jan. 7 for installing heating and ventilating systems in the B. F. Day and senior grammar schoolhouses. Lyman Banks, Secy.

**PORTLAND, ORE.**—The following bids were received Nov. 24 by James K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C., for installing a wiring system in the U. S. building here: Gilbert Wilkes & Co., Denver, Colo., \$9,206, 6 months; Western Electric Works, Portland, \$8,650, 90 days; Edw. Heaton, New York, N. Y., \$8,256.21, 95 working days; Portland General Electric Co., Portland, \$11,450.

**PORTLAND, ORE.**—Bids are asked until Dec. 8 for the construction, plumbing and electric wiring of a detached lavatory building at Fort Stevens. Capt. Downs, Q. M.

**HALIFAX, N. S.**—Reports state that the Imperial Hotel Co. will erect a new hotel building, to cost about \$250,000. Jas. T. Fairbanks is said to be interested.

**GEORGEVILLE, QUE.**—It is stated that the Owl's Head Hotel Co. will erect a hotel building here, to cost about \$100,000.

### WATER-WORKS.

**BOSTON, MASS.**—Bids are asked until Dec. 22 for furnishing cast-iron pipe and special castings, as described in our advertising columns. W. M. Brown, Jr., Ch. Engr. Metropolitan Sewerage Comrs., Boston.

**WAKEFIELD, MASS.**—This place has voted to instruct Representative Chas. W. Dean to petition the general court for permission to enter the Metropolitan water system at a cost of about \$350,000. Water meters will be used on all services. The committee consists of Chas. W. Dean, Edwin C. Miller and Thos. E. Dwyer.

**WILLIAMSBURG, MASS.**—The surveys for the proposed new reservoir and new source of water supply have been completed, but it is not likely that any steps regarding the construction will soon be taken, as it is considered desirable to await the decision of Northampton regarding its proposed new water supply.

**ADAMS, N. Y.**—Bids are asked until Dec. 17 for the purchase of \$11,000 of 3½% bonds for water-works improvements. Pop., 1,300. F. B. Waite, Village Clk.

**BUFFALO, N. Y.**—Local papers state that the council-mandate committee on hydrants will report in favor of asking for new bids for furnishing a supply of 160 hydrants.

**GREEN ISLAND, N. Y.**—Reports state that the board of trustees is again considering the question of works to cost about \$100,000, plans for which were prepared some months ago.

**LOCKPORT, N. Y.**—The council has received proposals for a new water supply from the Lockport & Newfane Power Co., Burt Van Horn, Pres., Buffalo, and from the Niagara, Lockport & Ontario Power Co.

**NEW YORK, N. Y.**—Robt. Van Buren, Ch. Engr. of the Brooklyn Water Supply Dept., has again recommended that an additional water supply be secured from Suffolk county, or as an alternative, from the Housatonic watershed. For temporary relief the following improvements are recommended: Filter plants for the Springfield and Balesley ponds pipe conduit from Milburn to Spring Creek (the money for these two has already been appropriated and plans for their execution are being considered), additional pumps at and repairs to Milburn reservoir, construction of reservoirs in Forest Park and at additional points along the watershed, improvement of the Gravesend and



New Utrecht pumping station, the remodelling of the high pressure service at Mount Prospect and the introduction of meters. Mayor Van Wyck has approved a resolution providing for the issuance of corporate stock for \$10,000 for sinking wells and constructing pumps to increase and extend the city's water plant at Totenville, Richmond, Albert Winternitz, 1314 Ave. A, has submitted the lowest bid at \$12,918 for erecting a water tower extension on Blackwell's Island.

**ATLANTIC CITY, N. J.**—Capt. J. J. Williams, of Baltimore, Md., is reported to have the sub-contract from the T. A. Gillespie Co., Pittsburg and New York, at about \$15,000, for laying the 30-in. steel riveted water pipe through the water. The itemized bids for the pipe were given in our issue of Nov. 22.

**OCEAN CITY, N. J.**—The new owners of the Ocean City Water Co. have decided to begin work at once on the proposed works, bids for which were recently received. J. J. Burielgh, Chas. Fogg and Chas. Watson, of Camden, N. J., and L. M. Cresce, of the Ocean City Trust Co., are interested.

**TRENTON, N. J.**—The water commissioners are reported to be in favor of the purchase at once of a new pump of about 15,000,000 gallons capacity. Allen Hazen, 220 Broadway, New York, will soon report the condition of the water supply. C. A. May, Pres. Water Bd.

**EAGLES MERE, PA.**—The proposed works and light plant for the Eagles Mere Light Co. will consist of the following, the water power to be obtained from the outlet to Hunters Lake, 4 1/2 miles distant: Waterwheel and fixtures are contracted for with Pelton Water Wheel Co., 143 Liberty St., New York; generator of the two-phase type and the power house appliances are ordered from the Westinghouse Electric & Mfg. Co., Pittsburg. Dams are nearly finished. Plant is to start experimentally in May. To go into actual operation for the season of next year on June 1. About 1,000 16-c. p. lamps will be required and probably 10 street lights. Voltage at power house will be 2,200. No contracts have been made except for water power appliances and the generator and power house appliances. Capital \$20,000, all subscribed and being paid in as needed. Stockholders are the cottagers and hotel men of Eagles Mere. The light company is to furnish power for an auxiliary water company now being organized and capital subscribed. Water will come from drilled wells about 200 ft. deep. A tank of 100,000 gallons capacity will be built. This plant is to go into operation June 1. Wells are now being bored. No other contracts made as yet. C. LaRue Munson, Pres., Williamsport, Pa.; B. G. Welch, Treas. and Secy., Sonestown, Pa.; after May 1, Eagles Mere.

**HARRISBURG, PA.**—The Carrick Water Co., Baldwin and Knoxville; Pa. the Scotia Water Co., Jefferson; the Beechmont Water Co., Collier; the Amity Water Co., Milflin township; the Federal Water Co., South Fayette; the Bridgeville Water Co., Upper St. Clair township; and the Snowden Water Co., Snowden township, have all been incorporated with capital of \$1,000 each.

**NAZARETH, PA.**—The Tammany Cement Co. proposes to build water-works to cost \$25,000 in connection with its projected cement plant, to cost about \$500,000.

**PHILADELPHIA, PA.**—Bids are asked until Dec. 11 for taking down engine No. 1 of 10,000,000 gals. at the Roxborough pumping station, and transporting and re-erecting it at the Frankford station. W. C. Haddock, Dir. Dept. Pub. Wks.

**SCRANTON, PA.**—West Kime, of the West Side, is reported as organizing a company to build works to furnish certain sections of the city with water.

**SPRINGTOWN, PA.**—The Springtown Water Co. is reported to have decided to spend \$1,500 for improving its works.

**WHITE HAVEN, PA.**—The question of forming a local company to build works is being considered.

**WILKINSBURG, PA.**—Bids are asked by the Pennsylvania Water Co. until Dec. 27 for laying about 37,000 ft. of 16, 30 and 42-in. cast-iron water mains, as stated in our advertising columns. J. H. Harlow, Pres.

**LEWES, DEL.**—This place has again voted upon the question of works.

**BRISTOL, VA.**—The council is considering the question of a new source of water supply, to cost about \$25,000.

**LYNCHBURG, VA.**—The city is gathering data on filtration of its water supply, as it is proposed to install a 4,000,000-gallon filter in the spring. Address J. G. Payne, Chn. Com., and Taylor Gleaves.

**MARTINSBURG, W. VA.**—The council has appropriated \$2,225 for new machinery for the works, according to reports.

**DILLON, S. C.**—Estimates are reported as wanted by S. S. Rozler, the Intendant, for furnishing this place with a steel tower 100 ft. high, a 75,000-gallon tank and 10,000 ft. of 6-in. water main.

**AUGUSTA, GA.**—The water commissioners propose to build a receiving basin at the pumping station to cost \$4,000. Nesbit Wingfield, Supt. Pub. Wks.

**DE LAND, FLA.**—The water committee has been directed to secure estimates for a new pumping engine.

**LAUREL, MISS.**—Bids are asked until Feb. 5 for furnishing the materials and for constructing works, to include wells, 10,500 ft. of mains, two pumps, etc., and to cost \$60,000, as described in our advertising columns. Iowa Engineering Co., Engrs., Clinton, Ia.; L. Slatton, Mayor.

**CINCINNATI, O.**—The water-works commissioners have been directed to issue in February \$1,000,000 of 3% bonds to carry on the construction of the new works at California. The only large contract not yet let for the new works is that for the pumps, bids for which are asked until Dec. 18, as stated in our advertising columns.

**CUYAHOGA FALLS, O.**—Bids are asked until Dec. 24 for the purchase of \$45,000 of water bonds. C. A. Weidner, Corporation Counsel.

**STRUTHERS, O.**—Clarence H. Struble, of Warren, O., is reported to have secured a 25-year franchise for works, an electric plant, etc., for this place. The Continental Gas & Electric Co. has also just been granted a franchise.

**WELLSVILLE, O.**—The vote that was to have been taken Nov. 27 on the question of issuing \$75,000 in bonds for improving the works has been postponed until Dec. 27. In August L. E. Chapin, Consult. Engr., Canton, O., recommended a new 16-in. force main, a 14-in. main, a 24-in. well 40 ft. deep, two 3,000,000-gallon high duty pumping engines, a small tunnel, a boiler 72 ins. x 16 ft., etc., costing about \$75,000. Since August some changes in the plans have been suggested whereby a considerable saving can be secured. It is also proposed to spend \$65,000 for storm water sewers. D. A. Davidson, Supt.; A. G. White, Cy. Engr.

**YOUNGSTOWN, O.**—At the last election, on Nov. 6, this city voted down the proposition to issue \$600,000 in bonds for new works to be built on Mill Creek, it receiving only the support of about one-fourth of the voters. Since then nothing has been done. It is understood that a company

of capitalists has a desire to purchase the works, but it is not likely that any such proposition will be considered by the people. The water supply needs filtration, but it is not considered dangerous.—The Republic Iron & Steel Co. proposes to build a pumping station at its Valley plant.

**INDIANAPOLIS, IND.**—The park board is planning to build a standpipe in Riverside Park to supply water to the parks. Address Superintendent of Parks Power.

**JEFFERSONVILLE, IND.**—The city council has defeated the proposition to lease or buy the works of the Jeffersonville Light & Water Co.

**KOKOMO, IND.**—The council is securing subscribers to the proposed new works, which it is proposed to build next year at a cost of \$60,000. The American Water Co., the owner of the present works, asks about \$130,000 for its property.

**VALPARAISO, IND.**—The council will decide this month on the question of new works, or the purchase of the Valparaiso Water Co.'s works, according to reports. Mayor Woodhull, Aldermen Wendt and Crosby may be addressed.

**LA SALLE, ILL.**—W. F. McNamara, Mayor, has signed the resolution authorizing the extension of the works, to cost about \$93,000. There will be new wells, mains, one high and one low duty 3,000,000-gallon pumping engines, one 200,000-gallon standpipe, etc. A. C. Finkler, Cy. Clk.

**APPLETON, WIS.**—The council has served notice on the Appleton Water Co. that it intends to purchase the works, and that appraisers be appointed to make a valuation of the property. Should the works not be purchased then the city will build, securing its water supply from Lake Winnebago and artesian wells.

**FORT ATKINSON, WIS.**—The question of issuing bonds for works will again be voted upon in January. Daniel Bullock, Mayor.

**CEDAR FALLS, IA.**—The standpipe of 100,000 gallons capacity is reported to have burst Nov. 21.

**GRINNELL, IA.**—Bids for a dam, pumping plant, etc., to cost \$5,000 will probably be received in January, according to reports. Geo. Cadogan Morgan, Consult. Engr., Chicago; J. F. Wilson, Cy. Clk.

**ARKANSAS CITY, KAN.**—Bids are asked until Dec. 27 for constructing an electric plant, water-works, cold-storage plant, etc., at the Indian school at Chillico, Okla. W. A. Jones, Comr. Indian Affairs, Washington, D. C., or P. L. Wise, Cy. Engr., of Topeka, Kan.

**MELLETT, S. DAK.**—This place has voted to sink a new artesian well for an increased water supply.

**YANKTON, S. DAK.**—A joint committee of the council and the Business Mens' Club of Yankton has engaged Arnold C. Koenig, Civil and Hydraulic Engineer, of Grand Island, Neb., to investigate a new source of water supply for the city and to report on remodeling the works. The present supply is from artesian wells, and is unfit for domestic use.

**WEBSTER GROVES, MO.**—The council is considering a proposition from J. B. Quigley, of Sedalia, Mo., to build new works, the water supply, which will be from the Missouri River, is to be filtered. It is also proposed to build an electric plant. W. M. Daly, Mayor; M. W. Cronin, Chn. Com.

**DENVER, COLO.**—The city will do nothing definite regarding the proposed new works before February. No further negotiations with the Denver Union Water Co. will be taken up until the cost of an independent plant is secured. The board of public works wishes to have at least three independent sources of water supply. The sources so far selected are the Platte River, St. Vrain Creek and the Chicago Lakes in Clear Lake county. Surveys will soon be started, which will cost about \$20,000. Thos. Withers, Harry A. Frambach and John S. Crawford have organized an irrigation and water supply company, which proposes to secure its water from St. Vrain Creek.

**GOLDEN, COLO.**—Thos. F. Tucker has ordered the construction of a storage reservoir about five miles north of Golden. The position occupied is a natural basin, surrounded by low hills and in general form corresponds to the shape of a soup bowl. When completed it will hold about 2,000 acre feet of water for use of the surrounding country. The surveys were made and plans prepared by E. L. Rogers, civil engineer, of Denver. While iron and stone work will enter into the construction, the great mass of material will be earthwork, of which there will be about 100,000 cubic yards. The reservoir will receive its supply from Ralston Creek.

**PRESCOTT, ARIZ.**—On Nov. 22 the council awarded the contract for building new pumping plant and pipe line to the Phoenix Construction Co., of Chicago, Ill., at \$145,700. This price covers a 500,000 gal. Dean pump, built to work against 725 lbs. pressure, a 165-HP. cross compound Corliss engine, a 72-in. x 16 ft. tubular boiler, all properly set and housed, and 19 1/2 miles of 8-in. steel pipe, asphalt coated, and properly gated and provided with air chambers and air cocks. The work is to be completed by May 15, and the specifications and contract provide for a 10 days' dry test at the end of that time. The work is under the charge of W. W. Folett, Consult. Engr., 537 Pearl St., Denver, Colo.

**LAKEVIEW, ORE.**—Work on the proposed plant for the Lakeview Water Co. will begin in the spring, according to reports. S. V. Rehart, Pres.

**MEDFORD, ORE.**—Bids will probably be wanted in the spring by the Fish Lake Water Co. for constructing works to cost about \$200,000. S. C. McCray, Engr., San Jose, Cal.

**BAKERSFIELD, CAL.**—The question of works is reported as being considered.

**LOS ANGELES, CAL.**—The Imperial Water Co. has been incorporated with capital of \$1,000,000 by Rush Harris, R. D. McPherrin and E. J. Rockwell.

**LOS ANGELES, CAL.**—Bids are asked until Dec. 17 for constructing Section A of the headworks plans for the proposed municipal works. The plans and specifications of the headgate, reservoir, infiltration galleries, pipe mains, etc., for the proposed works may be seen at the office of Engineering News, 220 Broadway, New York. Frank H. Olmsted, Cy. Engr., writes us that the city is no nearer in obtaining possession of the City Water Co.'s plant than it was two years ago. The city bonds for the construction of the headworks, purchase of the present distribution system, etc., are still before the courts and may remain so for years. The proposal now is based on funds in the city treasurer's hands, which have been paid in as interest and sinking fund on the supposition that the bonds are now drawing interest, which is not the case, and there is about \$100,000 available at present of these funds with which to start the construction of headgates. C. H. Hance, Cy. Clk.

**SAN FRANCISCO, CAL.**—It is proposed to dam the American River at Auburn, 118 miles from here, for the new water supply, according to Jay E. Russell, owner and promoter, 1424 Greenwich St., San Francisco. The dam will be 300 ft. long, 100 ft. high and on an elevation of

1,000 ft. About 60,000,000 gallons of water a day is to be delivered to San Francisco and Oakland in two 4 ft. steel conduits by gravity, and also deliver 5,000 electric HP. and equip an electric road. The water-works will cost about \$4,000,000, the electric road \$500,000 and the power and light plant \$500,000. The city of San Francisco has appropriated \$30,000 to examine the feasibility of securing a water supply from the Sierra Nevada Mountains. The citizens desire the municipal ownership of all utilities, and it is probable that an election to vote on the question will be held Feb. 1. Oakland may be able to secure the same water advantages from the same source as it is proposed to secure for San Francisco. Oakland is now paying 6% interest on \$8,500,000 to two private companies.

**RICHMOND, CAL.**—The Richmond Water Co. has been incorporated with a capital of \$10,000 by E. S. Tewsbury and E. E. Mintzer, of Marin county, and J. H. Nicholl, of East Oakland, Cal.

**GENESEE, IDAHO.**—This place is reported to have voted against works.

**LEWISTON, IDAHO.**—W. A. Stevens, Mgr. of the Sweeney syndicate, is reported as stating that the syndicate will at once begin the construction of a large pipe line.

**PICTOU, N. S.**—Bids will be asked in a few days by the city clerk for the materials and the construction of new works to cost \$100,000. A water supply of 1,000,000 gals. a day is to be secured from seven artesian wells a mile from the town. There will be a 500,000-gallon standpipe, about nine miles of 6 to 14-in. pipe, 60 hydrants, and next year an electric plant. Lee & Coffin, Engrs., McGill University, Montreal, Que., and 53 State St., Boston, Mass.

**NIAGARA FALLS, ONT.**—A by-law will probably be submitted in January authorizing the securing of funds for a new pump, etc., to cost \$10,000.

## SEWERAGE.

**BOSTON, MASS.**—Bids are asked by the board of metropolitan sewerage commissioners, 1 Mt. Vernon St., until Dec. 22, for constructing about 2,365 ft. of the high level sewer section No. 51, in Quincy, as stated in our advertising columns. Wm. M. Brown, Jr., Ch. Engr.

**MOUNT MORRIS, N. Y.**—It is stated that the people of this city are considering the question of constructing a system.

**PERRY, N. Y.**—The state board of health is said to have approved the plans of Knight & Hopkins, of Rome, for the proposed system here.

**SYRACUSE, N. Y.**—The council has passed ordinances providing for the construction and improvement of a number of sewers.—The city clerk has been directed to advertise for bids for constructing a 15-in. pipe sewer in Lodi St.—The city engineer estimates the cost of constructing the proposed Ninth Ward trunk sewer at \$25,000 for brick or \$21,000 for web tile.

**WATERFORD, N. Y.**—Bids are asked, according to reports, until Dec. 7 for constructing a system of sewers for Northside. James H. Glavin, Supt.

**FORT MOTT, N. I.**—Bids are asked until Dec. 27 for constructing a system of sewers here. J. de L. Lafitte, Cons. Q. M., Delaware City, Del.

**ALLENTOWN, PA.**—The council has appointed Mayor Schadt, C. W. Luros and C. F. Stahler, Chn. Councils; G. R. Roth, Chn. Sanitary Com.; Jas. P. Gallagher, Prest. Bd. Health, and J. Howard Martz, Cy. Engr., a committee to secure data relative to the construction of a system.

**CARBONDALE, PA.**—The council has passed an ordinance providing for the construction of a sewer in Hospital St.

**DUQUESNE, PA.**—The council is said to have let the following contracts: Hockman & Cardwell, of Pittsburg, for constructing an 8-in. sewer in Peach Alley, at \$1,173; Ott Bros., Pittsburg, for a sewer in North Second St., at \$1,995, for a sewer in North Third St., at \$1,884.

**WASHINGTON, D. C.**—We are informed that the district commissioners have accepted the design of Oscar G. Vogt and C. A. Didden, 709 13th St., N. W., for a sewage pumping station to be erected on Canal St., S. E., between M St. and the Anacostia River. The building alone will cost about \$180,000, exclusive of pumps, engines and other machinery. D. E. McComb, Supt. Sewers.

**CULPEPER, VA.**—The council is said to be considering plans for a new system of sewage disposal.

**FREDERICKSBURG, VA.**—The council has appropriated \$38,000 for sewer and street improvements, according to reports.

**DURHAM, N. C.**—The council has ordered a special election for Jan. 7 to vote on the question of issuing \$100,000 in bonds for constructing a system and \$200,000 for street improvements.

**GAINESVILLE, FLA.**—Alderman McArthur is said to be securing data, estimates, etc., for the proposed new sewerage system here.

**BIRMINGHAM, ALA.**—We are informed that a bill is now before the state legislature to authorize the construction of the proposed county sewerage system. Julian Kendrick, Cy. Engr.

**FLORENCE, ALA.**—A bill has been introduced into the legislature asking for permission to issue \$40,000 in bonds to complete the system.

**CLEVELAND, O.**—Bids are asked until Dec. 20 for constructing a conduit to divert Giddings Brook through Baldwin Ave. into Doan Brook. John Vanderveide, Deputy Dir. Pub. Wks.

**EAST LIVERPOOL, O.**—Bids are asked by the board of sewer commissioners, until Dec. 10, for constructing a 6-in. sewer in Chestnut St.

**TOLEDO, O.**—The council has passed ordinances providing for the construction of sewers in several streets and alleys.

**SALINA, KAN.**—The mayor writes us that the contract has been let for constructing the sewer extension on Ash St.

**DENVER, COLO.**—Bids are asked by the board of public works until Dec. 7 for constructing sewers in North Denver sanitary sewer district No. 4 and in sub-district No. 5 of Capital Hill district No. 1. Joel W. Shackelford, Pres. Bd.

**SHERMAN, TEX.**—It is stated that a special election will shortly be held to vote on the question of issuing \$100,000 in bonds for constructing a system. Chester B. Doris, Engr., Dallas.

**LONG BEACH, CAL.**—Charles E. Walker, Cy. Engr., writes us that he is under the direction of the board of trustees, preparing plans, estimates, etc., for a system preparatory to the calling of an election to vote bonds. Plans will be completed about Dec. 15 and the election held soon after. The system will cost about \$25,000 or \$30,000.



HANFORD, CAL.—J. G. Burgess, Pres. Bd. Trustees, writes us that the people have voted to issue \$50,000 in bonds for constructing a system. Plans and estimates have been prepared by D. Bromfield, Mills Bldg., San Francisco.

POMONA, CAL.—W. H. Saunders, Cy. Engr., writes us that the council has passed a resolution of intention to construct about 20 miles of 8 and 10-in. pipe sewers, average cut 8 ft., to cost about \$57,000, about 3,900 ft. of this will be 10-in. and the rest 8-in.

HAMILTON, ONT.—The sewer committee is said to be considering the question of erecting the west end sewage disposal plant. The city engineer submitted the following estimates: \$28,963 for a bacterial plant, with \$3,000 extra for septic tanks; \$35,900 for a chemical plant and \$40,000 for the extension of the present system through the marsh to deep water.

#### GARBAGE DISPOSAL—STREET CLEANING

PHILADELPHIA, PA.—The following bids were received by W. C. Haddock, Dir. Pub. Wks., Nov. 22, for cleaning the streets and collecting the ashes, etc., during the coming year; all local bidders:

Bidder.	Entire city.
J. Laughlin & Co., 2214 E. Susquehanna Ave.	.....
Daniel Dooley, 1831 Lancaster Ave.	.....
R. P. Bennis, 1718 E. Chelton Ave.	.....
Jas. Curran, 2617 E. William St.	.....
E. H. Vane, Betz Building	.....
David McMahon, P. O. Building	.....
H. E. Ruch, 2851 Hutchinson St.	.....
Patrick Monaghan, 2138 Pemberton St.	.....
Michael O'Rourke, 1107 Walnut St.	.....
J. F. Sherron & Co., 959 North Front St.	.....
David Peoples, 2508 Callowhill St.	.....
Alfred C. Harmer, Germantown, Philadelphia	.....

The following are the bids for collecting and disposing of the garbage, etc., for the entire city, during the year: David Peoples, 25th and Callowhill Sts., \$512,000; Cranford & Co., 215 Montague St., Brooklyn, N. Y., \$522,000; American Contracting & Mfg. Co., 211 S. 9th St., \$533,800; American Product Co., Land Title Bldg., \$448,000. The American Contracting & Mfg. Co. bid as follows for the different districts: First, \$51,200; Second, \$48,200; Third, \$49,800; Fourth, \$95,800; Fifth, \$89,800.

NEW YORK, N. Y.—The department of street cleaning will probably again ask for bids in January for disposing of the garbage. The cost of disposal works for Manhattan and Brooklyn are estimated to cost from \$3,000,000 to \$6,000,000, including land damages.

ROCHESTER, N. Y.—The following bids were received by the board of contract and supply Nov. 23 for collecting the garbage, waste, etc., for one year: C. W. Hartung, \$27,500; W. T. Kohlmetz, \$28,900; Thos. Holahan, \$27,000; G. Wilbur Burne, \$26,940 (accepted).

UTICA, N. Y.—William Pritchard, 105 Whitesboro St., has been awarded the contract, at \$825 a month, for collecting and removing the garbage for the term beginning Jan. 1, and ending Jan. 1, 1906. The other bids were as follows: Chas. Kilkenny, 4 Faxon St., \$833 per month; Henry Stappenbach, Whitesboro, \$1,083; John N. Siegrist, of Utica, \$900; Michael Doll, \$905.

JERSEY CITY, N. J.—John Nolan, 171 Bright St., has been awarded the yearly contract for cleaning the streets, removing dirt, waste, garbage, etc., from 3,000 lin. miles of stone-paved streets, 1,762 miles of asphalt-paved streets, and 140 miles of macadam streets, to cost about \$65,000 a year.

ORANGE, N. J.—Wm. Schluer, Health Officer, has recommended the purchase of a garbage crematory, as the present system of garbage disposal is unsanitary.

BALTIMORE, MD.—Sam'l A. Rice, of Baltimore, has been awarded the contract to collect and dispose of the garbage, waste, etc., for 10 years, at \$148,000 a year. Mr. Rice will build a crematory at once. The bids were published in our last issue. Paul Iglehardt, Comr.

COSHOCOTON, O.—The question of cleaning the paved streets this winter is being considered by the trustees.

JOLIET, ILL.—R. M. Poland has submitted the lowest bid, at \$1,884, for building a crematory.

DES MOINES, IA.—The Engle-Thompson Crematory Co. has asked permission to build a crematory. The lease of the present city crematory expires in February.

SAN FRANCISCO, CAL.—The board of public works, it is stated, will soon ask for bids for sweeping and cleaning the streets from Jan. 1 to June 30, 1901, to cost about \$190,000.

#### STREETS AND ROADS.

BOSTON, MASS.—Bids are asked by the Massachusetts Highway Commission, 4 Mt. Vernon St., until Dec. 6 for constructing a section of the state highway in Haverhill, for constructing about 2,300 ft. of highway in Swampscott and 2,300 ft. in Deerfield.

HARTFORD, CONN.—Highway Commissioner MacDonald has rejected the bids recently received for grading about 13,000 ft. of a highway in North Stonington, as they were larger than the appropriation of \$4,500.—The contract for constructing a gravel road in West Stafford has been let to A. Brazos & Sons, of Middletown.—The board of street commissioners has prepared assessments for asphaltting Capital Ave., to cost about \$15,700, and Church St., to cost about \$2,407.

BROOKLYN, N. Y.—Louis Risse, Ch. Engr., Topographical Bureau, has submitted the board of public improvements plans for a proposed board walk at Coney Island. It is proposed to make the walk about 10,000 ft. long and 100 ft. wide; the shore side is to be asphalted. The estimated cost is about \$685,000. A public hearing on the matter will be given Dec. 19.

ELMIRA, N. Y.—The board of public works has passed a resolution of intention to pave Baldwin St. and Railroad Ave. with brick or asphalt.

NEW YORK, N. Y.—Bids are asked by the department of highways, 21 Park Row, until Dec. 11 for paving in Bronx Borough, East 132d St., East 162d St., East 155th St. and Stebbins Ave., with granite blocks, and for regulating and flagging the sidewalks in East 169th St. in Brooklyn, Nicholas Ave. with asphalt and Himrod St. with cobblestones; in Queens Borough, for sidewalks on 22d St. Jas. Keating, Comr.

RYE, N. Y.—The town board has decided to appropriate \$24,128 for highway improvements.

SYRACUSE, N. Y.—The council has directed the city engineer to prepare plans for extending Butternut St. to North West St.

ATLANTIC CITY, N. J.—Bids are asked until Dec. 10 for about 5,674 sq. yds. of 3-in. macadam roadway, 1,161 sq. yds. of 6-in. and 4,061 sq. yds. of block pavement

with necessary excavation and curbing, as stated in our advertising columns. John W. Hackney, Cy. Surv.

ELIZABETH, N. J.—The board of freeholders is said to have decided to borrow \$100,000 for widening Westfield Ave. to 100 ft. and macadamizing the roadway.

DUQUESNE, PA.—The council has let the following contracts to Ott Bros., of Pittsburgh, for grading, curbing and paving North Second St., at \$3,130, and Pear Alley, at \$2,463.

NEWPORT NEWS, VA.—Assistant City Engineer Kometel has prepared the following estimates for about 1,933 sq. yds. of paving on West Ave., \$7,398, and for about 3,445 sq. yds. on the River Road, \$12,760.

CINCINNATI, O.—Bids are asked by the board of public service until Dec. 24 for constructing and repairing plank sidewalks in the eastern and western sidewalk districts. Robert Allison, Pres. Bd.; Geo. H. Holmes, Clk.

CLEVELAND, O.—The council has passed a resolution to grade and improve Blanche St.—The question of paving Miles Ave. is being discussed, according to reports.

MARION, O.—Press reports state that the council will soon be petitioned to pave Mt. Vernon Ave. with asphalt.

#### for Street Cleaning, the Removal of Ashes, Etc.

Bidder.	Districts					
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.
J. Laughlin & Co., 2214 E. Susquehanna Ave.	.....	\$161,974	.....	\$174,974	.....	\$28,910
Daniel Dooley, 1831 Lancaster Ave.	.....	165,000	.....	149,700	.....	107,000
R. P. Bennis, 1718 E. Chelton Ave.	.....	152,000	.....	154,000	.....	23,400
Jas. Curran, 2617 E. William St.	.....	122,000	.....	152,000	.....	30,430
E. H. Vane, Betz Building	.....	95,000	.....	149,700	.....	110,000
David McMahon, P. O. Building	.....	108,000	.....	170,000	.....	152,000
H. E. Ruch, 2851 Hutchinson St.	.....	112,000	.....	154,000	.....	147,115
Patrick Monaghan, 2138 Pemberton St.	.....	11,000	.....	177,000	.....	120,000
Michael O'Rourke, 1107 Walnut St.	.....	125,000	.....	145,300	.....	.....
J. F. Sherron & Co., 959 North Front St.	.....	126,000	.....	159,000	.....	112,000
David Peoples, 2508 Callowhill St.	.....	168,000	.....	65,000	.....	163,000
Alfred C. Harmer, Germantown, Philadelphia	.....	.....	.....	.....	.....	110,000

DES MOINES, IA.—The mayor has signed the resolution providing for the paving of 21st St. with asphalt.

ST. PAUL, MINN.—On Dec. 6 the board of public works will prepare the assessment for paving Hoely Ave., to cost about \$4,003. Wm. L. Ames, Pres.; C. H. Bronson, Clk.

OMAHA, NEB.—Bids are asked until Dec. 14 for constructing street improvements in districts Nos. 759 and 760. Andrew Roswater, Chn. Bd. Pub. Wks.; Wm. Coburn, Secy.

KANSAS CITY, MO.—The park board is considering the question of constructing a boulevard from Gladstone Boulevard and Monroe Ave. along the bluff to Elmwood Ave.

SEATTLE, WASH.—Press reports state that the council is considering the question of planking and paving Madison St., to cost about \$64,350.

NAPA, CAL.—Bids are asked by the board of supervisors until Dec. 12 for constructing a new road in the Pope Valley Road District. N. W. Collins, Clk.

#### MANUFACTURING PLANTS.

BINGHAMTON, N. Y.—Local papers state that the plant to be built by the Cayuga Lake Cement Co. at Ithaca will cost \$200,000. Work on the foundation is now under way. Chas. E. Lee is interested.

LONG ISLAND CITY, N. Y.—The Keene's White Cement Co. has been incorporated with \$10,000 capital stock. A plant will be located in this city. Lewis Fin, 87 Franklin St., Brooklyn, is interested.

NEW BRUNSWICK, N. J.—The United States Ice Machine Co. has been incorporated with \$100,000 capital stock to manufacture ice-making machinery. A plant will be built in this city. Henry T. Roffe, Kingsbridge, N. Y., and Thomas Lea, New Brunswick, are interested.

EASTON, PA.—The cement plant owned by Wm. Krause & Sons, of Philadelphia, located at Martin's Creek, was destroyed by fire on Nov. 26. The loss is reported at \$200,000.

PHILADELPHIA, PA.—The contract for rebuilding the abattoir at 30th and Market Sts. has been let to Armstrong & Printzenhoff, at \$20,000.

PITTSBURG, PA.—The American Bridge Co. has received the contract for building the steel mill and open-hearth plant to be erected by the Allegheny Steel & Iron Co., at Brackenridge, about 20 miles from this city. The sheet mill is to be 252x72 ft., and the open-hearth building 161x72 ft. McKelvy & Hine, Archs., Ferguson Bldg., Pittsburg.

WEST ELIZABETH, PA.—The Crucible Steel Co., capitalized at \$1,000,000, proposes to build a new plant in Monongahela valley, and will probably locate it in this town. The new plant will have a capacity of about 250,000 tons of steel a year. It is stated that the site for the new plant has been selected, and that the works will be ready for operation by next July.

SPARTANBURG, S. C.—James A. Chapman, Pres., Inman mills, writes us that the company's mill will be located at Inman and will have 10,000 spindles and 200 looms. Nothing definite has been done towards the construction of plant.

ATLANTA, GA.—The Chattahoochee Brick Co.'s plant, near this city, was destroyed by fire on Dec. 2. The loss is reported at about \$60,000.

THOMASTON, GA.—E. H. Mitchell, Pres., Flint River Brick Co., writes us that the company is in the market for dump cars, narrow gage track, etc., to be used in connection with its brick yard and plant.

MOBILE, ALA.—The Mobile Brewing Co. has purchased a site for an ice plant in this city. It is proposed to have a capacity of 50 tons. The plans for the building are now being drawn and it is expected that the plant will be completed by April 1.

SELMA, ALA.—It is stated that an ice factory will be located in this city by outside parties, on which work will be started as soon as a desirable site is secured. Messrs. Richard and Thalheimer, of this city, have been conducting the negotiations.

BATON ROUGE, LA.—R. A. Hart, Mayor, writes us that \$125,000 is being raised to capitalize a cotton plant, and figures are wanted on a small electric plant, which will also be established.

BILOXI, MISS.—The Baratara Canning Co., of Biloxi, will purchase one 150-HP. Scotch marine boiler and 175-HP. Scotch marine boiler; also two compound engines, 140 to 150 HP., with twin screw condensers, heaters, pipes and fittings and all such machinery used in the equipment of boilers.

SARDIS, MISS.—Press reports state that Casslum M. Carrier, of Buffalo, N. Y., will erect a lumber plant at this place, having a 10,000,000 ft. yearly capacity.

NASHVILLE, TENN.—It is stated that the William Gerst Brewing Co. will build a new cold storage and ice plant on South High St., to cost \$10,000. Construction will be started at once.

PADUCAH, KY.—Local papers state that a company has been organized as the Beaumont Soap Co., with \$100,000 capital stock, and will build a soap factory in this place. T. J. Murphy, E. S. Beaumont and Edwin B. Conroy are interested.

BELLAIRE, O.—It is reported that the additions to be made to the Laughlin mills will cost about \$300,000.

BELLEFONTAINE, O.—The Alta Cement Co. is said to be arranging for the erection of the buildings for a plant. Dayton and Fostoria men are behind the enterprise.

CHILLICOTHE, O.—A bonus has been raised for the establishment of a Florentine pottery plant in this place, on which the work will be started next month. J. P. Bradshaw, Supt., Zanesville, and F. C. Arbenz, Mgr., are interested.

LISBON, O.—The board of trade has raised \$16,000 as a bonus for East Liverpool parties who will build a five-kiln pottery here. Work will be started at once. The Thomas & Sons Co., East Liverpool, are said to be interested.

NILES, O.—Press reports state that the Independent Iron & Steel Co., of this city, will either erect a six-mill sheet iron plant or purchase the forge and plate department of the Sheet Steel Co.'s plant at this place. In the latter case the Sheet Steel Co. will build a new six-mill sheet plant. The former company was recently incorporated with \$200,000 capital stock. F. C. Robbins, W. A. Taylor and W. H. Smiley are interested.

PORT CLINTON, O.—A company is being organized for the purpose of building a plaster factory near this place, according to reports.

STUEBENVILLE, O.—Reports state that the National Steel Co. has let contracts for an open-hearth steel plant, to cost about \$500,000.

TOLEDO, O.—It is stated that improvements will be made to the Grasser & Brand brewery, to cost about \$25,000. A cooling apparatus will be added to the equipment.

YOUNGSTOWN, O.—The Youngstown Steel & Tube Co. has been organized by Geo. D. Wick, recently First Vice-President of the Republic Iron & Steel Co., with a capital stock of \$600,000, and will build a new iron and steel mill in this city. About 1,000 men will be employed. John A. Campbell, Geo. D. Fordyce and Wm. Wilkoff are also interested.

SAGINAW, MICH.—N. L. Burner, Arch., Saginaw, informs us that specifications for the machinery, boilers, etc., for the plant to be built for the manufacture of tar, tar oils, charcoal, lime, etc., will be completed about Dec. 20. The equipment will cost about \$50,000. The plans include three frame buildings.

MILWAUKEE, WIS.—Local papers state that the Wm. Bayley & Sons Co. will rebuild the foundry and machine plant recently destroyed. The building will cost about \$300,000.

WATERLOO, WIS.—A canning factory is reported proposed for this village. About \$25,000 has been raised for the enterprise, and a site purchased for the plant, which is to be ready for operation for next season's run.

GRAND RAPIDS, MINN.—A paper and pulp mill is to be established in this place by L. Lindauer, Kaukauna, Wis., Frank Beck, C. A. Bassard and others. The plant will cost in the neighborhood of \$200,000, and is to be ready for operation by Sept. 1 next. The pulp plant will have 30 tons daily capacity and the paper mill a capacity of 20 tons a day.

CORSICANA, TEX.—The bottling works of the Corsicana Mfg. Co. were destroyed by fire Nov. 25, causing a loss of about \$22,000. The plant will be rebuilt by its principal owner, C. H. Allyn.

STOCKTON, CAL.—Reports state that negotiations are pending for the establishment of a glass factory in this city. The plant will have an output of 3,000 boxes of window glass per month.

PHOENIX, ARIZ.—Bids are asked until Dec. 14 for constructing an ice plant, complete, with a capacity of 2,000 lbs. in 12 hours. S. M. McCowan, Supt. Indian School, Phoenix.

OTTAWA, ONT.—The Belgian Canadian Pulp Co., recently incorporated with \$579,000 capital stock, has secured a grant from the dominion government for the use of 743 sq. miles of forest lands located near the River St. Maurice and its tributaries. An agreement has also been concluded with the Shawingan Water & Power Co., as well as with an engineer, for plans for the company's works. Joseph Devolda, 141 rue de Stassart; Herman Cochet, 18 rue du Commerce; George de Laveley, rue du Prince Royal; and Edmond De Vylder, 19 rue de l'Industrie, all of Brussels, Belgium, are incorporators.

#### GAS PLANTS.

WINDSOR, VT.—The directors of the Windsor Gas Light Co. are said to have decided to issue \$12,000 in bonds for improving the equipment of their plant.

LOWELL, MASS.—It is stated that the Lowell Gas Co. will construct a new holder, to have a capacity of 2,000,000 cu. ft.

COOPERSTOWN, PA.—Reports state that Gottfried Falkenstein, of Erie, has purchased the gas plant here and will construct a coal gas plant to replace the present one, which uses oil.

DURHAM, N. C.—A. M. Sutherland, C. N. McAdoo, and others have, according to reports, received a franchise for erecting a plant.

GREAT FALLS, MONT.—Allen Shewmon, of Chicago, is said to have completed all arrangements for constructing a gas plant here, to cost about \$200,000. Work will probably be started in February or March.

DALLAS, TEX.—The council has passed an ordinance granting a franchise to the Dallas Gas & Fuel Co. to construct a plant, according to reports.

#### MISCELLANEOUS CONTRACTS.

FIRE ALARM SYSTEM.—Angelsea, N. J.—A fire alarm system will be installed here, according to reports.

FIRE ALARM SYSTEM.—Lanesboro, Pa.—The council is said to be considering the question of installing an electric fire alarm system.

FIRE ALARM SYSTEM.—Hintonburg, Ont.—Press reports state that the council is considering the question of installing a fire alarm system.

PROTECTED CRUISERS.—Washington, D. C.—Bids are asked until Feb. 1 for constructing three protected cruisers. John D. Long, Secretary of the Navy.

HYDRAULIC DREDGE.—Detroit, Mich.—Bids are asked until Jan. 3 for constructing one steel hulled, self-propelling, sea-going, hydraulic dredge, complete, as stated in our advertising columns. Maj. T. H. Handbury, U. S. Engr.



**GUN FORGINGS.**—Washington, D. C.—Bids are asked until Dec. 13 for furnishing 22 sets of 12-in. gun forgings. Charles O'Neil, Ch. Bureau Ordnance Navy Dept.

**CEMENT.**—Little Rock, Ark.—Bids are asked until Jan. 2 for furnishing 11,000 barrels of American Portland Cement, as stated in our advertising columns. Capt. Robert McGregor, U. S. Engr.

**VAULT.**—Washington, D. C.—Bids are asked until Dec. 17 for extending the vault in the issue department, office of the comptroller of currency, treasury building. Jas. K. Taylor, Supv. Arch., Treasury Dept.

**IRON WORK FOR CRANE.**—Detroit, Mich.—Bids are asked until Dec. 12 for constructing an iron gallery and support for a new traveling crane to be erected at the pumping station. H. S. Starkey, Gen. Mgr.

**NAVAL SUPPLIES.**—Boston, Mass.—Bids are asked until Dec. 11 for furnishing a quantity of lumber, Babbit metal and magnesia pipe covering at the navy yard. A. S. Kenny, Paymaster Gen., U. S. N., Washington, D. C.

**STEEL RECREATION PAVILION.**—Yonkers, N. Y.—Bids are asked until Dec. 24 for furnishing and erecting a steel recreation pavilion and approach on the Yonkers City Dock, as stated in our advertising columns. Leslie Sutherland, Mayor; John Fagan, Jr., Cy. Clk.

**RAPID TRANSIT TUNNEL.**—Chicago, Ill.—A number of capitalists, represented by Gabriel J. Norden, are said to contemplate applying to the council for a 50-year franchise to construct a rapid transit subway. Engineers are reported to be at work on the preliminary plans.

**BOILER PLANT.**—Kings Park, N. Y.—Bids are asked until Dec. 12 for installing an auxiliary boiler plant at the Long Island State Hospital, as stated in our advertising columns. A. E. Orr, Pres. Bd. Mgrs., Franklin Trust Co. Bldg., Clinton and Montague Sts., Brooklyn, N. Y.

**SMALL BOATS.**—Savannah, Ga.—The following bids were received Nov. 22 by Wm. J. Linley, Acting Asst. Surgeon, M. H. S., for three small boats at the Savannah Quarantine: Marine Mfg. & Supply Co., 157 South St., New York, N. Y., \$477; Estate N. Paulsen, Savannah, \$484 and \$521; Detroit Boat Works, Detroit, Mich., \$558; Cornwell & Chipman, Savannah, Ga., \$600.

**TELEPHONES.**—Chattanooga, Tenn.—The Cumberland Telephone Co., which recently absorbed the East Tennessee system, has purchased the Tri-State Telephone & Telegraph Co.'s entire plant; also the plants of the North Alabama & Georgia Telephone & Telegraph Co., and the North Georgia Telephone Co. These systems will all be connected with the Cumberland system at Chattanooga.

**WHARVES, ETC.**—San Francisco, Cal.—The following bids have been received by the harbor commission for constructing four wharves and two car ferry slips between Union and Lombard Sts.: R. H. Wakefield, Portland, Ore., \$328,847 (accepted); L. H. Pierson, \$450,000; City Street Improvement Co., \$353,000; Dundon Bridge Co., \$373,290; Jas. A. McMahon, car ferry slips 1 and 2, \$89,500.

**STATE CANAL WORK.**—Albany, N. Y.—Bids are asked until Dec. 10 for rebuilding Seales' waste weir on the Champlain Canal, for rebuilding north pier and placing concrete cut-off back of north abutment of Wellshook Aqueduct on the Black River Canal, and for rebuilding Pitcher's waste weir and spillway on the Forestport feeder on the Black River Canal, at Boonville. John N. Partridge, Supt. Pub. Wks.

**SEA-GOING DREDGE.**—Charleston, S. C.—The following bids were received Nov. 27 by Capt. J. C. Sanford, U. S. Engr., for installing pumping machinery in a sea-going suction dredge: R. G. Packard Co., \$40,000 delivered at New York, and \$42,000 delivered at Charleston, S. C.; Philadelphia or Wilmington, Del.; the Townsend & Downey Shipbuilding & Repair Co., \$28,000, delivered at New York, and \$25,000 for smaller machinery delivered at New York; the Camden Iron Works, \$25,750 delivered at any Atlantic seaboard shipbuilding port, or \$20,870 for smaller machinery. The following bids were also received for building the wooden hull and propelling machinery for the dredge: Bucyrus Co., \$148,200 (for smaller dredge complete, including propelling and pumping machinery); Jenks Shipbuilding Co., \$149,000; Geo. A. Glichrat, \$122,750; Petersburg Iron Works Co., \$142,580 or \$146,000 (for dredge complete, including pumping machinery); Townsend & Downey Shipbuilding & Repair Co., \$149,000 or \$118,000 (for smaller dredge and propelling machinery).

#### FOREIGN CONTRACTS AND EXPORT NEWS.

**ICE-MAKING PLANT.**—Kyoto, Japan.—Reports state that M. Shimogoi, of Kyoto, proposes to build an ice-making plant in Kyoto.

**FACTORY.**—Aarhus, Denmark.—Reports state that Moensted's oleomargarine factory was destroyed by fire Nov. 29, causing a loss of \$250,000.

**CREOSOTE.**—Lisbon, Portugal.—Bids are wanted by the Minho & Douro Ry. for furnishing 360 tons of creosote. J. G. Poves, Gen. Mgr., Oporto, Portugal.

**UNDERGROUND RAILWAYS.**—Paris, France.—We are informed that M. Fougere and M. Chagnaud have applied for concessions for two separate underground railways.

**RAILWAY.**—Marchienne-au-Pont, Belgium.—G. W. Roosevelt, U. S. Consul at Brussels, reports that the new established Globe Nail Works will soon build a short railway.

**COAL MINING.**—Balmaln, N. S. W.—Reports state that the Sydney Harbor Collieries, Ltd., will spend about \$1,000,000 in exploiting coal mines at Balmaln (Sydney), New South Wales.

**STATUE.**—Ballarat, Victoria.—Designs are wanted by the Committee of the Soldiers' Statue Fund, J. W. Nedwell, Secy., until Feb. 14 for a bronze or marble statue to cost not over \$12,500.

**PUBLIC BUILDINGS.**—Berlin, Germany.—Reports state that the Prussian government is erecting buildings in Berlin for music and art schools and art museums, which will cost about 16,000,000 marks.

**ENGINEERING SUPPLIES.**—Sweden.—F. S. Cock, of Christiania, Norway, is reported as wanting to take up the sale of engineering supplies and would like to be put in correspondence with manufacturers.

**VALVES, PIPE, HYDRANTS, ETC.**—Margate, Eng.—Bids are asked until Dec. 17 for cast-iron socket pipe, fittings, valves, hydrants, yam, etc., for the coming year. F. Stanley, Mgr.; E. Brooke, Town Clk.

**HARDWARE, MACHINERY, ETC.**—Brazil.—It is understood that Geo. W. Carr, 11 and 13 William St., New York, wants to secure catalogues, price lists, etc., of hardware and machinery for parties in Brazil.

**IRRIGATION.**—Peru.—We are informed that a national company has been formed in Lima, Peru, to build a system to irrigate the Pampa de Noco, and that contracts for the work will be let by the Ministry of Public Works. It is also proposed to build a canal through Callao, and a tunnel in Cerro de Pasco mineral regions.

**RAILWAY WORK, ETC.**—London, Eng.—The London Brighton & South Coast Ry. is about to spend about \$10,000,000 on new improvements, rolling stock, etc. Wm. Forbes, Gen. Mgr., London Bridge Terminus, London.

**PIER.**—London, Eng.—Bids are wanted from contractors, who can also help financially, to build a pier 2,500 ft. long in the south of England. Address Pier, Box 400, Willing's Advertisement Office, 125 Strand, London, W. C.

**HARBOR WORK.**—Constantine, Algeria.—We are informed that the general council has approved the plans for the proposed port at Djedid, and that the colonial Ministry at Paris, France, will at once proceed with the work.

**WATER-WORKS, SEWERS, ETC.**—Cienfuegos, Cuba.—Bids are asked by the Municipal Secretary until Dec. 17 for constructing water-works, the water supply to be secured from the River Hanahanita, a sewerage system and paving.

**WATER-WORKS.**—Argentina.—Reports state that the congress is considering a bill for constructing works in Jujay, Rioja, Santiago del Estero, Saita, Corrientes and Mendoza, and for extending the works in San Luis, San Juan and Catamarca.

**SEWERS.**—St. Petersburg, Russia.—Bids with plans, are wanted by the sewerage municipal commission, City Hall, St. Petersburg, until Aug. 31, for constructing a sewerage system. The first prize will be \$6,450; the second, \$4,100, and the third \$2,100.

**WATER-WORKS AND SEWERS.**—Monterey, Mex.—Reports state that Col. M. J. Dady, 350 Fulton St., Brooklyn, N. Y., will soon submit a proposition to the city officials to build water-works and a sewerage system, to cost about \$3,000,000.

**ROLLING STOCK, ETC.**—Russia.—The Vladikavkaz (Vladcausse?) Ry. proposes to purchase 200 goods locomotives, 50 passenger engines, 6,000 goods trucks and 40 passenger cars, according to reports. I. Mosemzter, Gen. Mgr., Kostoin-on-the-Don, Russia.

**BRIDGE.**—Russia.—The Ministry of Railways, St. Petersburg, has planned a railway bridge over the River Voga at Saratoff. It is reported that the structure will be a mile long and will cost about \$10,000,000. J. Balaschoff, Secy. State Rys. Administration, St. Petersburg.

**ENGINES.**—Wellington, N. Z.—Bids are asked until Feb. 28 for furnishing and erecting a set of triple-expansion condensing engines, 100 HP., and air compressors. Plans of engine room and forms may be obtained from John Duthie & Co., 23 Lime St., London, E. C., Eng., upon payment of one guinea. J. E. Page, Town Clk.

**HARBOR WORK.**—Dover, Eng.—The harbor commissioners have asked for power to spend about \$5,000,000 on harbor improvements. The railway companies will spend about \$3,000,000. This is in addition to the \$20,000,000 being spent by the national government. H. E. Stilgoe, surv.; E. W. N. Klocker, Town Clk.

**BRIDGE.**—Lyons, France.—M. Barlivet, Engr. Paris-Lyons-Mediterranean, 10 cours du Midi, Lyons, is preparing plans for a bridge over the Lyons-Marseilles lines, to cost \$18,800, for enlarging the station of Pont-d'Avignon, and for a platform covering for the at-present uncovered platforms of the Aubignan-Loriot and Pernes Stations.

**STEAMSHIPS, TELEPHONE LINE, ETC.**—Nicaragua.—Jos. Frye, of the Bluefields Steamship Co., of Bluefields, Nicaragua, has been granted a concession to operate a weekly service of steamships from Greytown and Port Limon to New Orleans. Mr. Frye has also asked for a concession for a telephone and telegraph lines from Bluefields to Rama.

**RAILWAYS.**—Portuguese West Africa.—The government at Lisbon, Portugal, has approved plans for the first section of 11,251 meters, of the proposed railway from Benguela to Monte Sakoa, ordering the calling for bids at once. It is also ordered that surveys be made for a railway as far as the frontier. Address the Ministerio das Obras Publicas, or the Ministry of the Colonies, Lisbon.

**STONE CRUSHER AND STEAM ROAD ROLLER.**—Santiago-de-Cuba.—Ricardo S. Porro, Contracting Engr., Santiago-de-Cuba, writes us that he wishes to purchase a stone crusher of from 75 to 100 cu. yds. daily capacity with elevator screens, etc., and probably an engine and boiler, of which he would like to secure separate quotation. Mr. Porro also wants to buy an eight to 10-ton steam road roller, in good condition.

**SUGAR MILLS, RAILWAY, ETC.**—Cuba.—Reports state that the recently incorporated Chaparral Sugar Co., an American concern, has just begun building sugar mills, installing the most modern machinery, a railway of 40 kilometers to connect the estate with the port of Cascareo, a wharf, etc., costing about \$500,000. The Mollenhausers, of Brooklyn; Nathaniel Tooker, 109 Wall St., New York, and Pearl White, of New Orleans, are interested.

**CABLE.**—Pacific Ocean.—Reports state that the Parliamentary Pacific Cable Committee, London, has accepted in behalf of the governments of Great Britain, New South Wales, Queensland and New Zealand the bid of the Telegraph Construction & Maintenance Co., London, Eng., to make and lay the cable from Vancouver to Queensland and New Zealand, via Fanning, Pitt and Norfolk islands, for \$8,975,000, the work to be finished at the end of 1902.

**ELECTRIC RAILWAYS.**—Belgium.—We are informed that Edward Empain, a banker, rue du Congrès, 33, Brussels, is at the head of the movement to build an electric railway to Antwerp, 26 miles, to cost about \$10,000,000.—It is proposed to build an electric railway between Vienna and Pressburg to cost \$1,000,000.—The Mediterranean Ry. proposes to build an electric road from Rome to Naples, about 190 miles. G. Oliva, Gen. Mgr., Milan, Italy.

**ENGINEERING SUPPLIES.**—England.—G. Harwood Frost, 745 Watchung Ave., Plainfield, N. J., wishes to secure the agency for a few lines of engineering supplies, both for Great Britain and the continent. Mr. Frost, who has just returned to America after a three years' stay in London, with occasional visits to the continental countries, has business connections with continental parties. Mr. Frost graduated as a mechanical engineer from Lehigh University in 1892.

**ELECTRIC TRAMWAY.**—Durban, Natal.—Reports state that the following contracts for the proposed electric railway have been let: Laying track, Hubert, Davis & Spain, Durban and Johannesburg, \$190,000; overhead equipment, Macartney & McElroy, London, \$84,970, and also that for the cars at \$93,000; power house and generating plant, Dick, Kerr & Co., London, \$131,200. As noted in our last issue bids will soon be wanted by Webster & Co., 5 East India Ave., Leadenhall St., London, for a new electric plant.

**ELECTRIC PLANT.**—Penang, Straits Settlements.—O. U. Thomas, of Penang, has submitted his report on the question of the proposed new electric light plant. The report states that the present oil lighting is incomplete and unsatisfactory, and that arrangements should be made at the termination of the present contract for con-

structing an electric plant. It is recommended that 850 16-c. p. and 40 2,000-c. p. lights be installed, with capacity for 7,500 8-c. p. lights for private use. It is proposed to erect a refuse destructor annexed to the power plant, which will be built on the Penang River. The council will decide the question early next year.

**MINING.**—Belgium.—We are informed that the Compagnie Generale Miniere pour le Developpement et l'Exploitation des Mines en Espagne et a l'Etranger has been formed in Brussels with a capital of \$6,000,000 by Marie G. Boulaire, Banker, 121 Rue Royale, Brussels; the Anglo-Oriental Banking Corporation, Ltd., London; Dr. Gustave Stirling, 121 Rue de la Pompe, Paris, and Francisco de Paula Alvarez, 66 Rue Jaffroy, Paris. The company is to purchase and work mines and form new societies. It will own five mercury mines, 82 mines of iron and three of lead, and will build a narrow-gauge railway from Grenade to the port of Calahouida through Motril with a branch line to Orgiva, and a pier for the loading of the ore on the port of Calahouida.

**MINING.**—Russia.—Reports state that Count Kilen Michel, St. Petersburg, has formed a company to exploit iron mines discovered on his estates in the government of Kursk.—Magnetic iron ores have been discovered at Elizabetopol, in the Caucasus. They are estimated to contain five billion pounds, with 62 to 63% of iron.—A company is reported to have been organized in Moscow to exploit peat properties.—A British syndicate, with a capital of \$5,000,000, has secured a concession to exploit the Arden gold fields, 370,000 acres in extent, in the Amur region. The syndicate will also be allowed to dredge and excavate the streams. The Marquis of Queensberry, Kinmount House, Annan, N. B., Eng., and Prof. Holloway are the heads of the syndicate.

**POWER PLANTS.**—Leeds, Eng.—The Yorkshire Electric Power Syndicate, Ltd., has been formed to furnish electric power to Leeds, Bradford, Halifax, Todmorden, Huddersfield, Wakefield, Sheffeld, Doncaster, Goole and about 150 other towns and districts in Yorkshire. The area to be covered is about 1,800 sq. miles, with a population of about 2,250,000. Only 12 of the places it is proposed to furnish with electricity at present have plants, and 18 of the others have authority to build. There will be four main generating plants. Capital, \$15,000,000. A. G. Lupton, Chn., Leeds; R. Armitage, Sheffeld; F. Priestman, Bradford, and others are interested. The engineers are Gibbings & Baker, W. T. Pressland and John Sturgeon, who promoted the Lancashireshire last year.

**MACHINERY, ETC.**—Spain.—The editor of "Revista Minera Metalurgica y de Ingenieria," Villalar 3, Madrid, Spain, writes us that the proposed tramway for Zaragoza, bids for which were received Nov. 27, will be a small line, as is also the proposed electric plant for Velez Blanco. The Credito Industrial Gijones, Gijon, Spain, recently incorporated with a paid-up capital of 4,500,000 pesetas, is a first-class concern, as is also the Sociedad Electrica Galega, of Vigo, which is building works for the production of calcium carbide. Our correspondent further states that the chances of American manufacturers in Spain are very good, if they are duly represented, but so far he does not know of any good organization for that purpose. Mechanical machinery for metal works and agricultural machinery to any amount on equal terms with English goods will no doubt find a good market.

**CANALS, PORT WORKS, ETC.**—France.—We are informed that the government at Paris wants to grant a concession for a dam and reservoir on the Tirso, in Ile, for irrigating the plain, Campidano d'Oristano, to cost \$300,000.—The Netherlands and Belgian governments will soon ask for bids for building the canal of Temzenen in Holland, to cost several million francs.—Bids are asked by the public works office, Hotel de Ville, Ostend, Belgium, until Dec. 20 for drains to cost \$100,000, and water conduits to cost \$53,000. Fee for specifications, \$1.—It is proposed to build water-works at Tourney, Belgium, to cost \$275,000.—Bids are asked by the ministry of public works, Rome, Italy, until Dec. 13 for port works at Naples to cost \$500,000, bond \$400,000.—The Ministry of Public Works, Madrid, Spain, has approved plans for a port at Bostia, to cost \$200,000 for the quay and \$50,000 for the jetty.

**RAILWAYS.**—France.—We are informed that the municipal council is considering the plan for the proposed underground railway to make a circle of the city under the grand boulevards, including two tunnels under the river, each to be 31.16 ft. in diameter. There will be a central continuous platform.—The Deputies Railways Commission is considering the question of a railway between Morez and St. Cloud, to cost about \$19,400,000, exclusive of rolling stock. This line would be owned by the Paris-Lyons-Mediterranean Ry. A car-sorting station for the P. L. M. Ry. is proposed at St. Hilaire de Brethmas. M. Albaret, Ch. Engr. of Construction, 88 rue St. Lazare, Paris.—Orizet & Son, of Nice, France, have the contract at \$144,000 for a new line between Culoz and Chindrieux.—Jos. Monin, 91 rue Miromesnie, Paris, has authority to build a mineral carrying tramway from Painsfol.—It is proposed to build an electric tramway in Vaugneray, France.

**SEWERAGE SYSTEM.**—Havana, Cuba.—The appraising committee has decided to give M. J. Dady, 350 Fulton St., Brooklyn, N. Y., \$555,894 for tanteo rights under his city contract, being based on 3% of the original estimate of \$12,600,000 and interest from the time the plans were approved, together with Mr. Dady's expenses, approximating \$100,000. The council up to Dec. 1 had not acted on the report. The council will examine the matter previous to advertising for bids for 40 days. If Mr. Dady gets the contract he will have 30 days more to begin the work, unless General Wood interferes. The work will not begin the present winter. Two others who are bidding may contest the Dady claim in the courts. According to the plan followed by the city, Dady may meet any bid and have the additional right of compelling any other bidder to pay him \$555,894 previous to beginning work. This may keep others back and give Dady the contract at his own figures. Lieut. W. J. Barden, U. S. Engr., Ch. Engr. of Havana.

**RAILWAYS, PUBLIC WORKS, ETC.**—Turkey.—Edouard Zanni, Haratchi-Han, Constantinople, Turkey, writes us that the contract for building the Beyrouit-Damascus Ry. has been let to a French contractor. The Ottoman government reserves the right to extend the line, as the government has under consideration the matter of building a line to Biredjik. R. Emond, Administrator, 88 rue St. Lazare, Paris. Nothing definite has yet been done regarding the construction of the Bagdad-Anatolian Ry., a concession for which was granted some time ago to Dr. G. Siemens, of the Deutsche Bank, Berlin, Germany.—The Belge Cockerill has the contract for a tramway in Hedfz.—Estimates for a tramway in Constantinople have been prepared, but the government has never taken up the question, as the Sultan is opposed to the introduction of electric energy into the capital, and in the second place the Society of Electric Tramways has not settled its right of priority.—The government has been asked to build the Hasskeng Canal, but it is understood that it is not in favor of the work. A Belgian company has the



contracts for the machines and material for building the Constantinople Canal. Considerable public work of various kinds is proposed. An article in French about the proposed telegraph line, reported in our issue of Oct. 4, may be seen at the office of Engineering News, 220 Broadway New York.

MACHINERY, ETC.—Antwerp, Belgium.—A. Dillen, 42 rue de l'Harmonie, Antwerp, writes us that he wishes to obtain the agency for American machinery, etc., in Belgium. He desires specially to secure the agency for gas and gasoline engines, industrial railway supplies, well-drilling machines, wire ropeways, sheet steel and iron, structural steel and iron, cold-drawn steel, lead and copper, copper wire, etc. Catalogues, circulars, price lists, etc., are wanted. There have been a large number of industries, etc., established and to be established in Antwerp and vicinity, including iron and steel plants, large buildings, shipbuilding works, etc., in the last five years. The Vulcanin Beige, recently formed to build a ship yard at Hoboken, near Cockerill, will be the largest of the kind in the country. The proposed national promenade, buildings and bridges between Heyst and Knocke will cost over a hundred million francs, and it is likely to be some time before the government will proceed with the work. Work on the electric tramway in Antwerp will soon begin. The government has been forced a number of times to let contracts for engineering supplies outside of the country.

COAL CARS.—Glasgow, Scotland.—Bids are asked until Jan. 8 for furnishing 30 coal cars of 30 tons capacity for the Caledonian Ry. The cars to be flat-bottomed, the under frame of pressed steel, the floor of steel plates, the sides of either steel or wood with two doors on each side (and alternatively a door at each end), fitted with side spring buffers of steel with heads 1 ft. 6 ins. in diameter, Westinghouse brake and hand brakes—the latter capable of being applied and released from either side of wagon, tires, wheels, axles, and couplings of British Railway standard requirements, and the dimensions to be within the following limits, viz.: The outside width not to exceed 8 ft. 6 ins. at any part, the height from the rail not to exceed 8 ft. at any part when loaded, the height from the rail to the center of the buffers when the cars are empty to be 3 ft. 5 1/2 ins., the distance between the centers of the buffers to be 5 ft. 9 ins. The offers should state the price delivered free on the Caledonian Ry., and be accompanied by plans and specifications, giving the dimensions of the cars, the quality of the materials of the various parts, the tare weight, the carrying capacity in cubic feet, and the date of delivery. J. Blackburn, Secy., 302 Buchanan St., Glasgow.

POWER PLANTS AND TRAMWAYS.—Great Britain.—Bids are asked by Robt. Hammond, Elec. Engr., 64 Victoria St., Westminster, London, until Dec. 27, for furnishing the machinery and erecting a complete electric plant at Hendon; fee for specifications, \$25.—Bids are asked by T. B. Holliday, Tramway Engr., Brighton, until Dec. 13 for constructing an electric tramway.—The Scarborough Electric Tramways Co. has been incorporated with a capital of \$750,000 to build tramways in Scarborough.—W. C. C. Hawtayne has submitted estimates for an electric plant for Dartford to cost \$100,000.—The proposed new electric tramways for Bournemouth will include a depot for 40 cars, 38 double-deck cars, 10 miles of track, etc., costing about \$900,000. F. W. Lacey, Surv.—The British Insulated Wire Co., of London, has been awarded the contract at about \$545,000 for the electric light, cables and mains for the proposed electric plant for Dublin, Ire.—D. H. Louderback, of Chicago, who was recently engaged by Chas. T. Yerkes to superintend the construction of the C. C., E. & H. U. R. R., the franchise for which was purchased by Mr. Yerkes, has let the contract to Price & Reeves, Westminster, London, for constructing the entire tunnel and extensions at about \$20,000,000. Work will begin at once. The specifications for the electrical equipment will be prepared at once and bids for the construction asked. It is reported that Mr. Louderback resigned his position in London on Dec. 3, and will return to America on Dec. 12. A. A. Houseman, 20 Broad St., New York, and H. C. Davis, of New York, are interested in the Yerkes scheme.—A number of bills are before Parliament asking for authority to build underground tramways in London and the nearby towns. One line is proposed to run from Paddington to Kensington, and another from Victoria Station to Putney, both of which schemes Americans are interested in. Albert L. Johnson, of New York, is interested in an entirely different scheme, his interests lying in the direction of suburban surface traction, especially in Manchester and Liverpool and the large cities of the north, where he is acquiring important concessions.—The London County Council also proposes to build underground roads under such streets where surface tramways are unworkable. J. W. Benn, Chn. Highway Com., Westminster Palace Hotel, London, S. W.—Frank Hawley, an electrical promoter, is in London in the interest of an American syndicate. Mr. Hawley says the capitalists he represents are ready to expend about \$20,000,000 in the construction of electric surface railroads in London and the suburbs to a radius of 30 miles.

CONTRACT PRICES.

PROJECTILES.—Washington, D. C.—The following bids were received by the Navy Department Nov. 16, 1900, for furnishing projectiles, (1) being for 50 8-in. A. P. shell; (2), for 500 6-in. A. P. shell; (3), for 300 12-in. common shell; (4), for 1,000 8-in. common shell; (5), for 5,000 6-in. common shell; (6), for 5,000 3-in. common shell; (7), for 20,000 3-pounder steel shell; Payne Co., Elmira, N. Y., (5), \$16.95, commence in 30 days, 150 per week; (6), \$2.34, commence in 90 days, 300 per week; (7), \$1.249, commence in 90 days, 900 per week. Benj. Atha & Illingworth Co., Newark, N. J., (1), \$64.50, commence in 40 days, 100 per week; (2), \$23, same delivery; (3), \$72, commence in 60 days, 30 per week; (4), \$46.50, commence in 60 days, 100 per week. Carpenter Steel Co., New York, (1), \$59, commence in 30 days, 50 per week; (2), \$22, commence in 30 days, 100 per week; (3), \$79.50, commence in 90 days, 25 per week. U. S. Projectile Co., New York, (2), \$22.50, commence 60 to 90 days, 50 per week; (4), \$24.50, commence in 90 days, 50 to 75 per week; (5), \$12.50 each, 60 to 90 days, 200 per week; (6), \$2.25, 60 to 90 days, 300 to 400 per week. Midvale Steel Co., Philadelphia, (1), \$48.90, commence in 90 days, 50 per week; (2), \$16.70, commence in 70 days, 90 per week; (3), \$74.90, commence in 70 days, 40 per week; (4), \$25.00, and commence in 120 days, 40 per week; (5), \$14.50, commence in 100 days, 50 per week. Taylor Iron & Steel Co., High Bridge, N. J., (1), \$40, commence in 180 days, 90 per week; (2), \$16, commence in 145 days, 90 per week; (3), \$97.68, commence in 110 days, 30 per week; (4), \$28.44, commence in 215 days, 100 per week. Louis Schutte & Co., Philadelphia (7), \$6 cts., commence in 60 days, 600 per week. American Ordnance Co., Bridgeport, Conn., (4), \$24.50, commence in 90 days, 50 to 75 per week; (5), \$12.50, commence in 60 to 90 days, 200 per week; (6), \$2.60, commence in 30 to 60 days, 500 to 900 per week; (7) 77 cts., commence in 60 to 90 days, 1,000 to 1,500 per week. Firth Sterling Steel Co.,

Demmler, Pa., (1), \$36, commence in 30 days, 125 per week; (2), \$19.50, commence in 30 days, 250 per week; will deliver both items complete in 10 weeks. Isaac G. Johnson & Co., Spuyten Duyvil, New York, (5), \$13 each, commence in 60 to 90 days, 125 per week.

BRIDGE FOUNDATIONS.—Washington, D. C.—The following bids were received Dec. 1, 1900, for the construction in part of the foundations for the Connecticut Ave. bridge over Rock Creek, \$36,000 being available for the work; the price quoted is per cu. yd.:

Table with columns: Bidder, Excavation, Concrete, Earth, Rock, masonry. Includes J. C. McGuire, A. Gleeson, Brennan Const'n Co., Geisel Const'n Co., Lyons & Co., Cranford Paving Co.

PUMPING ENGINE.—Bridgeton, N. J.—The following bids were received Nov. 27, for a pumping engine; steam pressure required, 90 lbs.; Timothy Woodruff, Supt. Water-Works:

Bids Received at Bridgeton, N. J., on Nov. 27, 1900, for a Pumping Engine.

Table with columns: Bidder, Duty, Water pressure, Speed, Style of engine, Total. Includes Deane Steam Pump Co., Robert Wetherell, Holly Mfg. Co., Snow Steam Pump Works, Barr Pumping Engine Co.

CURBING.—Washington, D. C.—The commissioners have accepted the following proposal for furnishing granite curbing, submitted by Venable Bros.: 6x25-in. straight at 7 1/2 cts. a ft., 6x20-in. circular at 94 cts., 8x8-in. straight, 63 cts., 8x8-in. circular, 84 cts.

SEWER.—Houston, Tex.—Hipp & Key have submitted the lowest bid as follows for constructing a 60-in. brick sewer: Laying 60-in. sewer, tripling (including all junctions), 400 ft., \$7.20 a ft.; constructing manholes (as per plan), per 1,000 brick, \$18; catchbasins as per plan, 1,000 brick, \$18; manhole and catchbasin covers, complete, 3 cts. a lb.; concrete work, 20 cu. yds., \$7.50 a yd.; brick masonry in wall, 20,000 brick, \$18 a M.; lumber in place, \$20 a M. ft. M.; creosoted lumber, \$35 a M. ft.; ditching, grading, etc., 9,000 cu. yds., 13 cts. a cu. yd.; excavation, 600 cu. yds., 30 cts.; total, \$4,740. Brown & Co. bid \$7,317 on same work, and Barden & Antill \$5,003.

ASPHALT PAVING.—New Orleans, La.—The Drainage Commission received the following bids Nov. 26, 1900, for paving 3d St., from Carondelet to Claiborne St., about 16,000 sq. yds.; (1) bid of Southern Asphalt Co., New Orleans; (2) Louisiana Improvement Co., New Orleans (accepted at total of \$30,640); (3) Barber Asphalt Paving Co., New York:

Table with columns: Item, 1, 2, 3. Includes Asphalt with binder, Without binder, Cinders, Curbing, Total with binder, Total without binder, Time to complete.

PUBLIC LIGHTING.—Baltimore, Md.—The American Street Lighting Co. has been awarded the contract for lighting and caring for all the street gas lamps for three years from March 1, 1901, at \$14.15 a lamp a year, the city to furnish the gas for the lamps.

ENGINEERING MATERIAL PRICES

TRACK MATERIAL.—Chicago—Steel splice bars, 1.30 to 1.35 cts; spikes, 1.85 cts.; track bolts, 2.40 to 2.55 cts. Pittsburg—Splice bars, 1.40 cts.; spikes, 1.70 cts.; track bolts, 2.25 to 2.35 cts. RAILS, STEEL. New York—New, \$26; old iron, \$15.00; old steel, \$11 to \$11.50. Chicago—New, \$26; old iron, \$18.00; old steel, \$11. Pittsburg—New, \$26; old iron, \$19.50; old steel, \$15. STRUCTURAL STEEL.—New York—Beams, 1.65 to 1.70 cts.; channels, 1.70 cts.; tees, 1.70 cts.; angles, 1.75 cts. Chicago—Beams, 1.65 cts.; channels, 1.70 cts.; tees, 1.70 cts.; angles, 1.45 to 1.55 cts. Pittsburg—Beams, 1.50 cts.; channels, 1.50 cts.; tees, 1.55 cts.; angles, 1.40 cts. PLATES AND SHEETS.—New York—Universal mill plates, 1.50 to 1.55 cts.; tank, 2.50 cts.; shell, 2.90 cts.; flange, 2.75 cts.; firebox, 3.20 to 3.30 cts. and up. Chicago—Universal mill plates, 1.40 cts.; tank, 1.50 to 1.60 cts.; shell, 1.68 cts.; flange, 1.63 cts.; firebox, 2.25 cts. and up; sheets, 3.00 to 3.20 cts. Pittsburg—Universal mill plates, 1.15 to 1.20 cts.; tank, 1.35 cts.; shell, 1.45 cts.; flange, 1.25 cts.; firebox, 1.55 cts. and up; sheets, 2.75 to 2.90 cts. MERCHANT STEEL.—Machinery, per lb., 2.00 to 2.10 cts. IRON.—Pig Iron: New York—No. 1, \$17.00; No. 2, \$16.00. Chicago—No. 1, \$15 to \$15.75; No. 2, \$15. Pittsburg—No. 1, \$15.00; No. 2, \$14.50. Bar Iron: Pittsburg—1.75 cts. LUMBER.—New York: Hemlock timber, 20 ft. and under, per M, \$16.00. Piling, Eastern spruce, 35 to 40 ft., 30 to 40% 12-in. butts, 6 to 7 cts. Yellow pine, random cargoes, \$19 to \$20. North Carolina pine, \$3.50 to \$4.00 advance over Norfolk rates. San Francisco: Oregon pine, rough commons, 32 ft., per M, \$20 to \$24. Redwood boards and dimension timbers, per M, \$19 to \$20. Redwood tank stock, up to 10 ft., \$25. GENERAL MATERIALS.—Lead, New York, 4.37 cts. Spelter, per lb., 4.30 cts. Copper Irgota, 16.75 cts.

INDUSTRIAL NOTES.

THE OAKLAND IRON WORKS, San Francisco, is reported about to ship a large amount of machinery to Australia.

THE BALDWIN LOCOMOTIVE WORKS, Philadelphia, has an order for 45 locomotives for the Philadelphia & Reading Ry.

THE NORTHERN ENGINEERING WORKS, Detroit, has just installed for Samuel Smith & Son, Paterson, N. J., a 20-ton 5-motor electric traveling crane, designed especially for boiler-shop service.

WM. B. SCAIFE & SONS, Pittsburg, have a contract from the Pittsburg Coal Co. for a number of new mill buildings of steel-frame construction; also a steel-frame bridge and trestle to be erected at Bridgeville, Pa.

THE GARRY IRON & STEEL ROOFING CO., 202-203 Merwin St., Cleveland, has just made shipment to China of a large pneumatic crane and car jacks for use on the Eastern Chinese Ry., and has orders for 12 other cranes to be shipped to Europe.

THE GATES IRON WORKS, 650 Elston Ave., Chicago, has an order from the Homestake Mining Co., Lead, S. Dak., for 10,000 special stamp shoes. This is probably the largest order of its kind ever placed and will require 51 freight cars to transport it.

THE RICHMOND LOCOMOTIVE WORKS, Richmond, Va., furnished the State Railway of Sweden last year some 20-in. and 31-in. x 24-in. two-cylinder compound ten-wheel freight locomotives, and the government has now ordered the construction in its own shops of 29 compound engines of the same type.

THE VULCAN IRON WORKS, 47 Milwaukee Ave., Chicago, is just finishing turntable and machinery for the new bridge over the Calumet River at Hegewisch, Ill., for the Calumet Western Ry., and is working on machinery, to be operated by gas engine, for the Beardstown draw, for the C. B. & Q. R. R.

CABLE, THORN & CO., 253 Broadway, New York, Eastern Sales Agents for Krause's Portland cement, report that the fire at their mill was not such as will delay the manufacturing of cement and that they will be able to ship orders without any delay. The buildings destroyed are already being reconstructed.

W. F. MORSE, 39 Cortlandt St., New York city, has recently been awarded contracts for garbage and refuse destructors of the Morse-Boulder type for the Kings Co. Institutions, Brooklyn, N. Y., the Bellevue Hospital, New York city, the Marine Hospital Service Laboratory, Washington, D. C., and the Cornell Medical Hospital, New York city.

A. LOUIS VERMANDEL, Mechanical Engineer, Brussels and Antwerp, Belgium, announces that he has secured the services of Mr. M. J. Fitz-Patrick, Publicist, who has joined the partnership with Mr. Vermandel and Mr. Jacques Gevers, of Antwerp. The firm wish to represent American manufacturers in Europe. The address has been changed from 31 Square Gutenberg, to 89 rue de Namur, Brussels.

THE STILLWELL-BIERCE & SMITH-VAILE CO., Dayton, O., were the engineers of the new plant of the St. Croix Power Co., on the Apple River Falls, Wis., which is now completed and running. The plant generates 4,000 HP, which is transmitted to the city of St. Paul, 25 miles distant. This property was purchased outright by Mr. R. N. King, of Dayton, who built the plant entire and turned it over to the new company.

THE INTERNATIONAL CORRESPONDENCE SCHOOLS, Box 803, Scranton, Pa., have opened an air-brake instruction room in connection with their offices in the Manhattan Building, Chicago. The equipment includes 60 freight-car brakes, 6 passenger brakes, 2 engine brake outfits and a full line of tandem apparatus, as well as sectional valves and apparatus for explaining the internal construction of the Westinghouse automatic air brake.

THE BOSTON BELTING CO., Boston, furnished for the Millinocket, Me., plant of the Great Northern Paper Co., over 21,000 ft. of its Imperial stitched belting, and for the Madison, Me., plant over 11,000 ft. The order included thousands of feet of water and steam hose, nine pairs of derrick straps, each about 50 ft. long, rubber-covered press rollers, etc., and is claimed to have been the largest contract for rubber goods ever placed for the equipment of a paper mill.

THE AMERICAN BRIDGE CO., New York, is constructing at its Gillette-Herzog branch at Minneapolis the structural steel for the Webster county courthouse at Fort Dodge, Ia. The company has a contract for the buildings for the new steel plant of the Allegheny Steel & Iron Co., at Brackenridge, Pa. About 500 tons of steel will be required. It has a contract also from the American Steel Hoop Co. for 750 tons of steel work for the steel bins at its Isabella furnaces at Etna, Pa. The bins will be made in accordance with the design of Mr. Julian Kennedy.

NEW COMPANIES.—Codorus Gas Light Co., York, Pa.; \$10,000; C. R. Fritcher, E. H. Wert, H. B. Garman, Harrisburg.

Equitable Light, Heat & Power Co., Jersey City, N. J.; \$50,000; J. L. Wilkie, W. B. Godman, A. C. Wall. Oakwood Oil & Gas Co., Columbus, O.; \$10,000; J. M. Kiser, W. F. House, G. F. Hill, A. L. Gilmore.

Lester Heigbis Water & Power Co., Union, N. Y.; \$16,000; G. S. Ackley, Binghamton; E. W. Van Slyke, M. S. Squires, Lestershire.

Hawthorne & North Paterson Gas Co., Paterson, N. J.; \$200,000; Iroy Meyers, Pres., Hawthorne; Arthur Kingsbury, Treas.

Washington County Gas Co., Hagerstown, Md.; \$2,000; J. E. Hewes, Wm. T. Hamilton, Jr.; Frank Futterer. The Gowanda Electric Light & Power Co., Gowanda, N. Y.; \$10,000; Charles E. Sipple, Charles P. Dean, George B. Pratt. Millville Light, Heat & Power Co., Millville, N. J.; \$100,000; George P. Feiffer, Levi Hindly, James R. Healey, John S. Horton.

Contract Work Should Always be Advertised in a Paper Read by Contractors.

NEARLY EVERY PROMINENT CONTRACTOR and Manufacturer of Contractors' Supplies IN NORTH AMERICA READS THIS PAPER.



