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PERSONAL.

Mr. A. C. Olney, Civil Engineer, has opened an office in the Duncan Building, Spartansburg, S. C.

Mr. S. K. Dickerson, Master Mechanic of the Lake Shore & Michigan Southern R. R., has resigned.

Mr. F. L. Dame has resigned as General Superintendent of the Tacoma Ry. & Power Co., of Tacoma, Wash.

Mr. Wm. E. Sapp has been elected Superintendent of the Mount Vernon Water Works, of Mount Vernon, O.

Mr. Warren H. Hautsch, Superintendent of the Staten Island Midland R. R. Co., of Stapleton, S. I., has resigned.

Mr. Ferdinand W. Peck, Commissioner General of the United States to the Paris Exposition, has returned to this country.

Mr. D. F. Maroney has been appointed General Superintendent of the Pittsburg Junction R. R., with office at Pittsburg, Pa.

Major Frank Heath, Ordnance Department, has been ordered to the works of Warner & Swasey, Cleveland, O., on official business.

Mr. Robert M. Sheats has been appointed Superintendent of Terminals of the Baltimore & Ohio R. R., with headquarters at Pittsburg, Pa.

Mr. R. A. Dugan, formerly Purchasing Agent, has been appointed Assistant General Manager of the Elgin, Joliet & Eastern Ry., with office at Joliet, Ill.

Mr. Geo. W. Bartlett, Superintendent of the Dunkirk, Allegheny Valley & Pittsburg R. R., has been elected President of the Buffalo R. R. Association.

Mr. Oscar Francis Bellows, Superintendent of Construction at Ports Morgan and Gaines, Alabama, was married to Miss Grace Estella James, of Danielson, Conn., on Dec. 5.

Mr. Robert Finney has been appointed General Superintendent of the Pittsburg & Western Ry. and General Agent for the Pittsburg Junction R. R., with office at Allegheny, Pa.

Commander L. C. Logan, U. S. N., has been detached from the Washington Yard and ordered to special duty in connection with the construction of coaling depots, Bureau of Equipment.

Mr. Wm. Swanton, Master Mechanic of the Pittsburg, Cincinnati, Chicago & St. Louis, at Indianapolis, Ind., will retire on Jan. 1. Mr. Swanton has been 50 years in continuous railway service.

Mr. J. S. Hamlin has resigned as Superintendent of Construction of the Christensen Engineering Co., of Milwaukee, Wis., to accept a position with the Auto Appliance Co., of Chicago, in the capacity of Manager.

Mr. Wm. M. Corbett has resigned as Superintendent of the Evansville & Terre Haute R. R., to accept the Superintendency of the Middle Division of the Chicago & Alton Ry., with headquarters at Springfield, Ill.

Mr. W. J. Underwood, General Superintendent of the Chicago, Milwaukee & St. Paul Ry., has been appointed Assistant General Manager, and is succeeded by Mr. C. A. Goodnow, formerly Assistant General Superintendent.

Mr. Jacob A. Harman, Civil Engineer, and Mr. Herbert E. Hewitt, Architect, of Peoria, Ill., have dissolved the association which has heretofore existed between them. Mr. Harman and Mr. Hewitt will continue the practice of their respective professions.

Mr. J. F. Angell, Superintendent of the Eastern Division of the Ohio Central lines, has been given jurisdiction over the Western Division, with headquarters at Columbus, O., vice Mr. H. C. Ferris, who retires from that position to act as Assistant to the Chief Engineer, with office at Columbus.

Mr. John F. Wallace, President of the American Society of Civil Engineers for 1900 and late Assistant Second Vice-President of the Illinois Central R. R., has been appointed Assistant General Manager of the same company. Mr. J. W. Higgins has been appointed General Superintendent of Transportation, with headquarters at Chicago. The office of Superintendent of Transportation is abolished. Mr. H. W. Parkhurst, M. Am. Soc. C. E., Engineer of Bridges and Buildings, is appointed Engineer of Construction. Mr. A. W. Sullivan is appointed Assistant Sec-

ond Vice-President, vice Mr. John F. Wallace, promoted. Mr. J. G. Hartigan has resigned as Assistant General Superintendent of Northern and Western Lines, of the Illinois Central system, and that office is abolished.

Mr. Daniel Doody, of Brooklyn, N. Y., has been convicted of perjury in connection with the trial of Mr. Robert W. Fielding, accused of conniving to defraud the City of Brooklyn in contracting work. Mr. Doody, when on the witness stand, showed great lapse of memory. He failed to remember the testimony he had given the Grand Jury, and which he had gone over with the District Attorney prior to the trial of Fielding. This testimony related to the commissions which he alleged to have paid certain city officials in connection with contracts for city work. Fielding was acquitted, and later Doody was indicted by the Grand Jury for perjury, as a result of his lapse of memory.

Mr. G. W. Stevens, President of the Chesapeake & Ohio Ry., has announced the following appointments, to take effect Jan. 1: Mr. C. E. Doyle, General Manager, with office at Richmond, Va. Mr. J. M. Gill, General Superintendent, with office at Huntington, W. Va. Mr. C. C. Walker, General Superintendent of the Eastern Division, with office at Richmond. Mr. J. W. Knapp, General Superintendent of the Richmond Division, with office at Richmond. Mr. J. H. Carlisle, Superintendent of the Huntington Division, with office at Hintou, W. Va. Mr. E. W. Grice, Superintendent of the Clifton Forge Division, with office at Clifton Forge, Va. Mr. G. W. Lewis, Superintendent of the Kentucky Division, with office at Ashland, Ky. Mr. H. C. Boughton, Superintendent and General Agent of the Green Brier Division, with office at Ronceverte, W. Va. Mr. J. W. Haynes, Superintendent of Terminals Cincinnati and Covington, with office at Cincinnati, O.

OBITUARY.

Mr. George W. Jones, City Engineer of Jamestown, N. Y., died Dec. 20.

Mr. Walter A. Allen, Civil Engineer of Colorado Springs, Colo., died on Dec. 14.

Mr. Charles A. Dixon, Mechanical Engineer, died at Newburg, N. Y., on Dec. 23.

Mr. Franklin B. Kinnard, formerly a railroad contractor, of Miles City, Mont., died Dec. 25.

Mr. Sidney Green Miller, a retired Civil Engineer and railroad builder, died in New York city on Dec. 25 in his 84th year.

Major James Converse, formerly Chief Engineer of the Galveston, Harrisburg & San Antonio Ry., died near Abilene, Tex., on Dec. 11.

Mr. J. H. Martin, Supervisor of Bridges and Buildings of the Knoxville Division of the Louisville & Nashville Ry., died in Lebanon, Ky., on Dec. 12.

Mr. Charles L. Erskine, survivor of the famous exploring expedition in charge of Admiral Wilkes, sent out by Congress in 1836, died Dec. 21 in Roxbury, Mass., in his 78th year.

Mr. G. W. Percy, President of the Technical Society of the Pacific Coast, died Dec. 14, at San Francisco, Cal., of heart disease. Mr. Percy was born in Bath, Me., 53 years ago. He was an architect of the highest standing and the builder of some of the most imposing and largest buildings in the state of California.

Mr. George A. Hanger, Superintendent for Mason, Hoge & Co., contractors, on their work at Sault Ste. Marie, Mich., died Dec. 16, from injuries received in an accident which occurred on the work a few days previous to his death. The deceased was a brother of Mr. H. B. Hanger, member of the firm of Mason, Hoge & Co.

Mr. J. Crawford Neilson, Architect and Civil Engineer, died Dec. 20 at his home near Churchville, Hartford county, Md. Mr. Neilson was born in 1816, and when quite a young man took up the profession of Architect and Civil Engineer. He designed and superintended the erection of several prominent government buildings.

Professor Thomas A. Williams, Assistant Chief of the Division of Agrastology of the Agricultural Department, died Dec. 25 at his home in Tacoma Park, D. C. Professor Williams was 35 years of age, and came from Weeping Water, Neb. Prior to his appointment to the Agricultural Department, he had been for six years Professor of Botany at the State Agricultural College in South Dakota, and held a similar position in the Columbian University for three years. He was widely known among the scientific men of this country and abroad, and was considered a high authority on botany.

ENGINEERING SOCIETIES.

COMING MEETINGS.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Jan. 2. Paper: "The Kinzua Viaduct of the Erie R. R. Co.," by C. R. Grimm. Secy., C. W. Hunt, 220 West 57th St., New York city.

CHICAGO ELECTRICAL ASSOCIATION.
Jan. 4. Paper: "Electricity in the Equipment and Construction of a Ship," by C. C. Matteson. Secy., R. H. Schuchardt, 130 Adams St., Chicago, Ill.

ENGINEERS' CLUB OF COLUMBUS.
Jan. 6. Paper: "Early History of Coal Mining in Ohio," by J. A. Jeffrey. Secy., H. M. Gates, 12½ North High St., Columbus, Ohio.

CONNECTICUT CIVIL ENGINEERS' AND SURVEYORS' ASSOCIATION.
Jan. 8. Annual meeting at Hartford, Conn. Secy., George K. Crandall, New London, Conn.

MICHIGAN ENGINEERING SOCIETY.

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

ELECTRICAL CONTRACTORS' ASSOCIATION OF THE STATE OF NEW YORK.
Jan. 15. Annual meeting at Utica, N. Y. Secy., Wells Dygert, 227 Pearl St., Buffalo, N. Y.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Jan. 16 and 17. Annual meeting at New York city. Secy., C. W. Hunt, 220 West 57th St., New York city.

NORTHWESTERN ELECTRICAL ASSOCIATION.
Jan. 16 to 18. Annual meeting at Milwaukee, Wis. Secy., Thos. R. Mercein, 85 Michigan St., Milwaukee, Wis.

OHIO SOCIETY OF SURVEYORS AND CIVIL ENGINEERS.
Jan. 21 to 23. Annual meeting at Columbus, O. Secy., Frederick J. Cellarius, Dayton, Ohio.

AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS.
Jan. 22 to 24. Annual meeting in New York city. Secy., W. M. Mackay, P. O. Box 1818, New York city.

ILLINOIS SOCIETY OF ENGINEERS AND SURVEYORS.
Jan. 23 to 25. Annual meeting at Bloomington, Ill. Secy., Jacob A. Harman, Peoria, Ill.

AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION.
March 12 to 14. Annual meeting in Chicago, Ill. Secy., L. C. Fritch, Washington, Ind.

WESTERN RAILWAY CLUB.—At the meeting on Dec. 18, three papers were presented, as follows: "Suggestions as to Fuel Economy," by Ira C. Hubbell; "The Car Journal Bearing and Hot Boxes," by S. P. Bush, Superintendent of Motive Power, C. M. & St. P. Ry.; "Box or Raised Patches for Fireboxes, and the Best Method of Applying Them," by W. H. Graves, Shop Foreman, Burl. & Mo. River R. R.

WESTERN SOCIETY OF ENGINEERS.—At the meeting on Dec. 19, Mr. Paul G. Brown (formerly an engineer of the Department of Public Works of Chicago) read a paper on "Methods of Tunnel and Crib Construction in Chicago." This gave in condensed form much of the information regarding the water supply tunnels and intake cribs already published in our issues of Oct. 18 and Nov. 9. In the discussion reference was made to the entire lack of system in the original arrangement of the distribution piping. Two 12-in. pipes would deliver into a 6-in., or the delivery pipes from a pump would meet and discharge into a supply main in such a way that the currents would be in direct opposition.

A paper on "A Design for Controlling Works at the Chicago End of the Drainage Canal" was read by Mr. Ossian Guthrie. He proposes to establish a lock with three pivoted gates at each end. Each gate revolves on a vertical shaft passing through its center, and when all are turned across the channel they entirely close it. At each end of the gate is a smaller gate or wicket. By opening one of these, and so reducing the area, the force of the current against the other half of the gate will turn the gate parallel with the current.

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.)

AIR COMPRESSORS.—Nordberg Mfg. Co., Milwaukee, Wis. Paper; 10 x 7 ins.; pp. 51; illustrated.

Large air compressors of various types are very well and fully described in this pamphlet. Where practicable the air cylinders of the compressors built by this company are fitted with Corliss valves.

MATHEMATICAL INSTRUMENTS.—John Davis & Son, 140 West Fayette St., Baltimore, Md. Paper; 8½ x 11 ins.; pp. 28; illustrated.

This is a catalogue of transits and surveying instruments generally, and of mathematical drawing instruments, anemometers, water gages, safety lamps, etc.

REFRIGERATORS.—White Enamel Refrigerator Co., 409 Jackson St., St. Paul, Minn. Two pamphlets; paper; 5 x 9 ins., and 9 x 12 ins.; pp. 24 and 4.

The 24-page pamphlet describes the construction of these air-siphon refrigerators for domestic use, stores, dining-cars, etc. The 4-page pamphlet relates to special forms of refrigerators for florists' use.

SINGLE-PHASE INDUCTION MOTORS.—Emerson Electric Mfg. Co., St. Louis, Mo. Paper; 7 x 10 ins.; illustrated.

Bulletin No. 3021 describes alternating current induction motors of medium and slow speed for single-phase currents in sizes of 1-10 to ½ HP. Bulletin No. 3025 describes high-speed motors of 1-10 to 1-6 HP.

ELECTRIC VEHICLES.—Woods Motor Vehicle Co., 545 Wabash Ave., Chicago. Paper; 7¼ x 5¼ ins.; pp. 36; illustrated.

This pamphlet is devoted exclusively to pictures of electric cabs, carriages, omnibuses and delivery wagons, no particulars of the mechanical or electrical apparatus being given. Among the most notable vehicles are an omnibus for New Haven, and wagons for mail collection and delivery. The cabs and carriages are in great variety.

SAW-MILL MACHINERY.—Geo. M. Dille & Son, Palestine, Tex., Agents for Curtis & Co. Mfg. Co., of St. Louis, Mo. Paper; 6 x 9 ins.; pp. 256; illustrated.

This is a comprehensive catalogue and price list of machinery and appliances for saw-mill and planing mill equipment. Various forms of circular, cross-cut and band saws are shown, as well as hand sawing machines, splitters saw-mill rigs and carriages, log rollers and conveyors, edging and trimming machines, planers, swing saws, sawdust conveyors, lath and shingle machines, etc. Engines (stationary and portable), boilers, tools, saw sharpeners and general supplies are also included.

PNEUMATIC ROCK DRILL.—The Chicago Pneumatic Tool Co., Chicago, Ill. Paper; 3 x 6 ins.; pp. 16; illustrated.

This pamphlet is devoted to the Schmucker rock-drill for mining work, which is driven by a small four-cylinder engine making 812 revolutions per minute, while the hammer piston strikes 4,000 blows per minute. The tool is operated by one man. A pneumatic chisel drill for cutting hitches for timbering in the mine is also shown.

STEAM-ENGINE INDICATORS.—The Ashcroft Mfg. Co., 85 Liberty St., New York city. Paper; 6 x 9 ins.; pp. 42; illustrated.

In the Tabor steam engine indicator manufactured by the above company parallel motion is secured by causing a pin on the pencil bar to slide in a curved slot in a flat plate. The Houghtaling reducing motion is used. The cord from the crosshead winds on a large pulley, the shaft of which is provided with a worm meshing in a worm-wheel on the paper drum.

VENTILATION.—Robert Boyle & Son, 64 Holborn Viaduct, London, England. Paper; 5 x 7 ins.; pp. 24; illustrated.

This pamphlet is entitled "Upward vs. Downward Ventilation" and is composed of extracts from a report prepared by Prof. S. Homer Woodbridge on the ventilation of the Capitol at Washington, D. C. It advocates the system in which the fresh air is introduced at the floor level at many points in the room to be ventilated.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Table with columns: Bids to be opened, Work, Place, See Eng. News. Lists various construction projects and their locations.

Table listing construction projects with dates and locations, including Railway work, Bridges, Pumping engines, etc.

RAILWAYS

ALABAMA.—The contract for building a branch railway nine miles in length, in Walker county, from a point on the Kansas City, Memphis & Birmingham R. R., near Horse Creek, to Democrat, has been let to C. D. Smith & Co., 1916 Morris Ave., Birmingham. The road will reach the Empire Coal & Coke Co.'s property. It will be completed in four months.

HOONE, ROCKWELL CITY & NORTHERN.—Reports state that the Marshalltown & Dakota Rly. will be merged into a new railway to be known as above. The change will involve the construction of eight miles of road from Boone, Ia., to Fraser, and of 22 miles from Gowrie to Rockwell City. Eastern capitalists are said to be in back of the scheme, which will be pushed through in the spring. Hamilton Brown, Pres., Marshalltown & Dakota Rly., Boone.

CENTRAL OF GEORGIA.—Surveyors are now in the field locating lines for the completion of the Brewton & Pineora railway. Three trail surveys are to be made. One of the lines will be toward Statesboro, Ga., another will follow the old line that was surveyed for the connection at Pineora, and the third will run from a point on the main line to Statesboro. The Brewton & Pineora now extends from Brewton to Register, a distance of 38 miles. About 20 miles of road will have to be built to gain a connection with the main line. Aaron Johnson, Engr. M. W. Macon, Ga.

CHATEAUGAY.—It is said that the company proposes to lay a third rail on its road from Cadville to Danemora, N. Y., at a cost of about \$35,000. J. N. Stower, Gen. Mgr., Plattsburg, N. Y.

CHICAGO & NORTHWESTERN.—A. A. Schenk, Div. Engr., Boone, Ia., is reported to have received instructions to begin the construction of a second track from Maple River to Dennison, Ia., a distance of 24 miles. The materials have been contracted for, and part of the work will be done this winter.

CHICAGO, ROCK ISLAND & MEXICO.—Incorporated in Texas, to build the extension of the Chicago, Rock Island & Pacific road from its present south western terminus at Liberal, Kan., to White Oaks, N. Mex., where a connection will be made with the El Paso & North-eastern, running from White Oaks to El Paso, about 144 miles. The proposed line from Liberal to White Oaks will be about 400 miles. The stockholders of the company are the same as those of the Chicago, Rock Island & Pacific Rly. The capital stock is \$2,000,000. S. B. Hovey, Ft. Worth, Tex.; Robt. Mather, Chicago, and M. A. Low, Topeka, Kan., are interested.

CHICAGO, ROCK ISLAND & PACIFIC.—R. W. Day, Div. Engr., Topeka, Kan., informs us that 15 miles of the extension from Anadarko to Fort Sill, Okla. Ter., has been graded, and work is now under way on the balance of the line, 17 miles. S. Delman & Son, Topeka, are the contractors for the grading.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—Geo. W. Kiltredge, Ch. Engr., Cincinnati, O., informs us that a survey is being made for the extension of the Aurora Branch to Rising Sun, Ind., about 8.5 miles, with a view of investigating the feasibility of building the road.

DOTHAN, HARTFORD & FLORIDA.—J. P. Pelham, Pres., Dothan, Ala., writes us that surveys for the proposed road have been completed and all rights of way are secured. Contracts for construction will be let on Feb. 1. The road will be 130 miles in length, and will pass through Dothan, Garrards, Ala., Graceville, Chipley, Warsaw, Greenhead, McAllister, Jones, Pack Dale, Loke, Yellow Bluff and St. Joseph, Fla. The construction capital is secured. Geo. Mickle, Ch. Engr., Dothan.

DULUTH, ST. CLOUD, GLENCOE & MANKATO.—The contracts for constructing this road will be let about April 1, as stated in our issue of Dec. 13. W. W. Olney, Ch. Engr., present address, Blunt, S. Dak., has submitted the following approximate estimates of the cost of constructing the line from Albert Lea, Minn., to St. Cloud, 157.2 miles, including rolling stock: Right of way, 1,905.3 acres, at \$100 an acre; clearing and grubbing, 144 acres, at \$50 an acre; earth excavation, 1,907,590 yds., at 15 cts. per yd.; rock excavation, 5,100 yds., at 80 cts. per yd.; wooden box culverts, 508,300 F. B. M., at \$30 per 1,000 ft.; iron pipe culverts, 879,840 lbs., at 3 cts. per lb.; pile trestling, 4,600 lin. ft., at 35 cts. per lin. ft.; timber trestling, 509,300 ft. B. M., at \$30 per 1,000 ft.; bridge masonry, 5,520 yds., at \$8 per yd.; bridges, iron (100 spans), 2,000,000 lbs., at 4 cts. per lb.; cattle guards, \$8,750; ties (2,640 per mile), 419,813, at 35 cts.; rails (70 lbs. T rail, 110 tons to the mile), 17,492.2 tons at \$20 per ton; rails for sidings etc. (70 lbs. T rail, 110 tons to the mile), 30 miles, 3,300 tons, at \$26 per ton; switch timbers and ties, \$3,390; spikes (5,920 lbs. to mile), 1,107,040 lbs., at 1.75 cts. per lb.; splice bars, 2,635,776 lbs., at 1.35 cts. per lb.; track bolts (2 to joint), 188,458.3 lbs., at 2.4 cts. per lb.; track laying, 187.2 miles, at \$500 per mile; hal-lasting (2.152 yds. per mile), 402,854 cu. yds., at 60 cts. per cu yd.; turn out and switch furniture, \$6,450; ft. B. M. road crossings, 68,040 ft. B. M., at \$30 per 1,000 ft.; section and tool houses, 16, \$800; water stations, \$15,000; turn tables, 4, at \$800; depots, grounds and repair shops, \$78,000; terminal grounds and special land damages \$150,

000; fencing, 314 miles, \$47,100; engineering and office expenses (5% of \$1,984,458), \$99,222; interest on construction (3% of \$2,083,080), \$62,510; rolling stock (500 per mile), \$786,000; telegraph line, 157 miles, \$200 per mile; total, \$3,060,340; average cost per mile ready for operation, \$19,467; approximate cost of 130 miles of road from St. Cloud to Duluth, estimated at \$23,000 per mile; approximate cost of entire line from Albert Lea to Duluth, 287.2 miles, \$6,050,340. A preliminary survey has been made between Albert Lea and St. Cloud. A. H. Reed, Pres., Glencoe, Minn.

LOUISIANA.—F. F. Myles, New Orleans, informs us that the rights of way for the proposed road from New Iberia to Berwick City, about 45 miles, have been secured, and that the capital for construction is promised. The contracts will be awarded about February. An organization has not yet been formed to push the enterprise.

MISSOURI, KANSAS & TEXAS.—The officials of this company are said to be considering plans for an extension from San Antonio, Tex., to Tampico, via Brownsville, a total distance of about 550 miles. It is stated that a party of officials have just returned from a visit to Tampico, Mex., where they have been investigating the possibilities of Tampico as a Gulf port. No decision has been made.

NEW YORK CENTRAL & HUDSON RIVER.—The contract for constructing the road from Clearfield to Kathaus, Pa., about 31 miles, has been let to the Pennsylvania Construction & Investment Co., of Clearfield. The work is to be started at once. It will include the construction of about two miles of tunnel and several river crossings. W. J. Wilgus, Ch. Engr., Grand Central Station, New York.

TEXAS.—Our correspondent sends us the following statement of mileage of railway constructed in Texas from Jan. 1 to Dec. 31, 1900: "In almost all cases I have received the data from the engineers in charge who, of course, must have approximated to the extent of giving probable mileage up to Dec. 31, but in the main I think the statement is as correct as it is possible to make same at this time. It is shown below that there were 294.7 miles of railway built in Texas during 1900. I have appended a statement of the mileage projected by the most substantial concerns in the state, and will state that about 325 miles of this \$37 (given in statement) is under construction or may be considered as such, as majority of same has been contracted for at this date. In addition to the 837 miles of railway projected by what I consider substantial concerns, there are about 992 miles of other mileage projected, a large part of which has been actually surveyed for. It is likely that it will be several years before these projects will be acted upon, though the mileage is through country that will soon make such lines necessary by its rapid development. The ninth annual report of the Railroad Commission of Texas, which will shortly be ready for distribution, will show the following: Miles of railway in Texas June 30, 1900, 9,867.07; June 30, 1899, 9,702.07; net increase, 165 miles. However, this includes 26.3 miles of the Rio Grande Northern Rly. and 52 miles of the Texas Western Rly., a total of 78.3 miles that were taken up and dismantled during the year. Hence the actual increase of mileage for June 30, 1900, over June 30, 1899, is 243.3 miles. Since June 30, 1900, the following mileage has been constructed in the state, of which the commission will take cognizance: Gulf Beaumont & Gt. Northern, 6 miles; Cane Belt, 15 miles; New York, Texas & Mexican, 18.5 miles; Texas & New Orleans, 23 miles; Missouri, Kansas & Texas, 7 miles; Calvert, Waco & Brazos Valley, 52.2 miles; Jefferson & Northwestern, 10 miles; total, 131.7 miles; also, the Angelina & Neches River R. R., from Kelys to Manton, 9 miles, recently chartered, but built some time since, will hereafter be considered by the commission. Total miles of railway in operation in Texas on Dec. 31, 1900, is 10,077.77. The above mentioned railway mileage and that included in the reports of the Railroad Commission, consider only such lines as are chartered organizations and are recognized as railways proper under the laws of the state. There are probably as much as 50 miles of tram and lumber roads, of standard gage, in the state, but which are operated as private property and are not considered as railways in the sense of chartered organizations and therefore are not included in estimates of railway mileage given above."

Mileage of Railway Constructed in Texas from Jan. 1, 1900 to Dec. 31, 1900.

Table listing railway mileage projects in Texas with columns for project name and miles.

Total 264.7

Railway mileage projected for immediate construction in Texas, and what may be considered as substantial projects:

Table listing railway mileage projects in Texas with columns for project name and miles.

Total 837.0

In addition to the above the following mileage is projected, but are not as yet what might be considered as substantial projects:

Table listing railway mileage projects in Texas with columns for project name and miles.

Total 992

John H. Reagan, Chn. R. T. Commission of Texas, and R. A. Thompson, Engr. and Comr., Austin.

NEW YORK, ONTARIO & WESTERN.—It is stated that the company has decided to extend its Ellenville branch to Kingston, at an early date. J. E. Childs, Gen. Mgr., 56 Beaver St., New York.

PENNSYLVANIA.—Subscriptions are being taken to aid the construction of the proposed road from McConnellsburg to Hancock, Md. An organization will soon be effected and negotiations for building will then be started. A meeting was recently held at McConnellsburg by J. J. Van Horn, representing New York capitalists, to submit propositions to the citizens of the county. J. F. Johnston, D. H. Patterson and H. R. Staffner are interested.

ST. LOUIS SOUTHWESTERN OF TEXAS.—F. H. Britton, Pres., St. Louis, informs us that the company does not contemplate building a line from Lufkin, Tex., to Rockland, as recently stated.

SARDIS & DELTA.—J. C. Kyle, Jr., Sardis, Miss., informs us that surveys have been completed, but all rights of way are not yet secured for this road, which is to run from Sardis through The Gums and Rivers, about 25 miles. The construction capital is secured, and the work is being done by day labor, under the supervision of Louis M. Parr, Ch. Engr., Sardis. Cassius M. Carrier, Sardis, is President.

VINING & COLEMAN.—Bids are asked until Jan. 15 for grading and constructing the track, including the bridging, the buildings, full equipment and rolling stock, in whole or in part, for a railway to be used for industrial purposes through Coleman county, commencing at a point on the Colorado River opposite Waldrip, and extending 30 miles in a northerly direction to Coleman, Tex. Maps, profiles, cross sections, buildings, bridging and complete specifications are to be seen on file at the office of John Andrewartha, Consult. Engr., 108 W. 8th St., Austin. The road will be used to handle the coal from the mines along the route. Most of the capital stock is secured. Bonds will be issued for the remainder. Advertisers in Engineering News. W. L. Vining, Pres., Coleman, Tex.

VIRGINIA & SOUTHWESTERN.—J. W. Lockhart, Engr. and Supt. of Construction, Bluff City, Tenn., informs us that a branch line, 1.5 miles in length, is now under construction from Elkman, Tenn., to the limestone quarry owned by Smalling & Cody, Bristol, Tenn. The Columbia Paper Co., Bristol, is erecting a large lime kiln at the quarry. About two-thirds of the grading is completed, and the road will be ready for operation by Feb. 1. S. P. Callahan, contractor.

WEST COAST.—Incorporated in Florida with \$58,000 capital stock, which may be increased to \$10,000,000, to build a railway from Greenville, Fla., through Madison, Taylor, Levy, Lafayette, Citrus, Hernando and Hillsborough, to a point on the Gulf coast at or near Tampa, a distance of about 250 miles. J. W. Oglesby, Pres.; R. C. McIntosh, Vice-Pres.; C. T. Tillman, Secy.

WESTERN OKLAHOMA.—A charter has been issued to this company in Oklahoma Territory, capitalized at \$5,000,000, for the purpose of constructing the extension of the Choctaw, Oklahoma & Gulf R. R. from Hartshorn, Ind. Terr., to Ardmore to a point in Greer county, Okla., and from Weatherford, Okla., towards Amarillo, Tex., or Albuquerque, N. Mex., having a total length of 320 miles. It is stated that the construction of both lines will be started at once, as all surveys have been practically completed. The incorporators are J. W. McLoud and F. A. Mallor, Little Rock, Ark.; Becks Erick, Weatherford, Okla.; C. M. Shawnee, Shawnee, and Geo. M. Martindale and others, of Oklahoma City, Okla.

WHITE DEER VALLEY.—Reported as incorporated in Pennsylvania, to build a line 15 miles in length, extending from White Deer to Duncans Station, Union county. The capital stock is \$30,000.

WOODWORTH & LOUISIANA CENTRAL.—Reported as organized in Louisiana with a capital stock of \$25,000, for the purpose of building and operating a railway line, commencing at Woodworth, Rapides parish. R. A. Leroy, Pres.; W. S. Smith, Vice-Pres., and John Stewart, Secy., Woodworth.

WYOMING WESTERN.—Wm. Ashton, Div. Engr., Oregon Short Line, Salt Lake City, Utah, informs us that this 10-mile road has been completed by the Utah Construction Co., of Ogden, Utah, contractors.

STREET AND ELECTRIC RAILWAYS

AMESBURY, MASS.—It is stated that the Lovell Syndicate, of which W. D. Lovell, of Newton, is the head, has perfected plans for an extension of its electric road interests in this section. Application has been made to the New Hampshire legislature for a charter for a new trolley road from Exeter to Portsmouth, and from the latter city to Dover. The company also proposes to build from Amesbury to Haverhill, and have the road in operation by next summer. Portsmouth, N. H., will be made the center of operations for the entire system, and it is stated that a power house will be built there to cost \$300,000, and also one in Amesbury to cost \$20,000.

ROCKLAND, MASS.—The Weymouth & Seltuate St. Ry. is said to have been organized for the purpose of constructing a road from South Weymouth to the village of Assinippi, in Hanover, a distance of eight miles. The capital stock is \$20,000.

WARE, MASS.—It is stated that the Hampshire & Worcester St. Ry. Co. has secured a site in this town for a power house and car barn, which it will use in connection with the proposed road to Gilbertville and North Brookfield.

HARTFORD, CONN.—Application will be made to the legislature for a charter to construct and operate a street railway for the passengers and freight in Hartford and Tolland counties. Alvarado Howard, Walter Scott and J. W. Valentine are interested.

WILLIMANTIC, CONN.—Application will be made to the legislature for a charter for an electric railway in this town, which will also extend through portions of Windham, Coventry and Lebanon. Wm. D. Grant and Wm. A. Arnold, Willimantic, and Walter H. Clark, Hartford, are interested.

ALBANY, N. Y.—The Black River Traction Co. and the Dexter & Brownville St. Ry. Co., of Jefferson county, have been consolidated, with a capital stock of \$105,000, and will be known as the Black River Traction Co. Geo. Kreinert and Chandler W. Riker, Newark, N. J., and S. R. Smith, Watertown, are interested.

UTICA, N. Y.—Local papers state that the Utica Suburban Ry. Co. has been granted a franchise to build a line through Washington Mills and Willowvale to Chadwicks. The company has the privilege of selecting one of two routes. The extension will be four miles in length and work will be started in the spring, and will be completed by summer. John W. Boyle, Pres.

HARRISBURG, PA.—The Carnegie, McDonald & Canonsburg St. Ry. Co. has been incorporated to build a railway. The capital stock is \$120,000. E. McDonald, McDonald; R. J. Steyer, Pittsburg, and W. J. Cassidy, Oakdale, are interested.

JOHNSTOWN, PA.—The Pittsburg, McKeesport & Conneville Co. has recently been incorporated, according to reports, for the purpose of merging the existing and projected trolley lines in this vicinity into one traction system. The company is capitalized at \$3,500,000. James S. Kuhn, W. H. Grahame and E. C. Gibson, Pittsburg, are interested.

PITTSBURG, PA.—The Consolidated Traction Co. has plans under consideration for the extension of its system in the Oakland district. General Superintendent states that it is not decided when the construction will be started.

CHATTANOOGA, TENN.—The council has granted a franchise to the Chattanooga Rapid Transit Co. for building a connection with the incline road to the top of Look-out Mountain. S. W. Devine, Pres.

ASHTABULA, O.—The contract for building the extension of the Pennsylvania & Ohio Ry. to this place has been let and the materials ordered, according to reports. The line is to be ready for operation by June 1. The power house will be located here.

COLUMBUS, O.—The capital stock of the Scioto Valley Traction Co. has been increased from \$100,000 to \$1,000,000. The company is to build an electric line between this city and Chillicothe. B. Mabier, Pres., Cleveland.

COLUMBUS, O.—The Mansfield, Mt. Glead & Columbus Electric Ry., Light & Power Co. has been incorporated with \$20,000 capital stock to build an electric road from Mansfield through Richmond, Crawford, Morrow, Delaware and Franklin counties to Columbus, with a branch to Mt. Glead and thence extending through Marion county to the city of Marion. T. Y. McCray, T. F. Boals and T. E. Barrow are interested.—The Norwalk, Ashland & Southern R. R. Co. has been incorporated with \$10,000 capital stock to construct an electric line from Norwalk to Ashland by direct route. C. P. Wickham, G. T. Thomas and J. H. Beattie are interested.

TOLEDO, O.—R. M. Barbour, 112 The Nashy, informs us that negotiations are now being made by parties to secure possession of the old charter of the Coburg, Northumberland & Pacific R. R., and as soon as the charter is secured the organization of a company will be perfected, and negotiations for the capital started to carry on the work of construction. Surveys have not been made. The road will be electric, 50 miles in length, and will run from Coburg through Baltimore, Warkworth, Campbellford and Havelock.

INDIANAPOLIS, IND.—The Indianapolis & Northwestern Electric R. R. has petitioned the County Commissioners for a franchise to build an electric road from this city to Crawfordsville, on the Crawfordsville pike. Frederick M. Ayers, Wm. M. Taylor and John H. Carson are interested.

JEFFERSONVILLE, IND.—Geo. H. Holzbog, Jeffersonville, informs us that applications have been made for franchises to the two counties through which the Jeffersonville, New Albany & Sellersburg Rapid Transit Co.'s line will run, and it is expected that the same will be granted at the next session of the commissioners.

BAY CITY, MICH.—The council has granted a franchise to the Bay Cities Consolidated Ry. Co. to use certain streets in this city for the company's line.

GRAND RAPIDS, MICH.—W. A. Tateam, Attorney for the Grand Rapids, Allegan & Kalamazoo Traction Co., 25 Canal St., writes us that surveys are in progress for the company's proposed electric line, 57 miles in length, and rights of way and all franchises are secured. W. H. Patterson, Gen. Mgr., Grand Rapids.

EVANSTON, ILL.—Application has been made to the council for a 50-year franchise through this city, by the representatives of the proposed Chicago, Evanston & Northern St. Ry.

ANOKA, MINN.—The St. Francis Electric Ry. has been incorporated to build a line of railway to run from St. Francis east to the Eastern Minnesota Cutoff, a distance of five miles. Chas. T. Woodbury, John G. Woodbury, Anoka; and Marshall S. Hamblin, St. Francis, are interested.

JEFFERSON CITY, MO.—The Kansas City and St. Joseph R. R. Co., of Kansas City, has been incorporated with \$1,500,000 capital stock, to construct and operate an electric street railway in Kansas City, Parkville, Platte City, Dearborn and St. Joseph. Perry A. Gibson, Erie, Pa., and Robt. P. McGeehan, Kansas City, are interested.

KANSAS CITY, MO.—The Kansas City, Parkville & St. Joseph Electric Ry. Co. has been incorporated with \$5,000 capital stock to build an electric railway from this city through Jackson, Clay, Platte and Buchanan counties, with branches to Platte City and Plattsburg. H. B. McAfee and W. T. Reed, of Kansas City, and Geo. W. York, Cleveland, O., are interested.

AUSTIN, TEX.—The Galveston City Ry. Co., of Galveston, has been incorporated with \$800,000 capital stock for the purpose of constructing and operating street railways within and near the city of Galveston. Walter G. Oakman, New York City; R. B. Paer, Houston, and J. W. Terry, Galveston, are interested.

SANTA FE, N. M.—M. W. McGeath, Ch. Engr., Santa Fe Ry. Co., writes us that the company is constructing its own line of 36 miles. Four miles have already been graded and ties are received. Rights of way are obtained and the capital secured. Geo. Nelson, Pres., Colorado Springs, Colo.

PORTLAND, ORE.—The property of the East Side Ry. Co. has been sold to Fred S. Morris for \$499,449. It is stated that various improvements and extensions will be made.

ELECTRIC LIGHT AND POWER

MANCHESTER, N. H.—Press reports state that the citizens of this city are considering the question of erecting a municipal plant.

LYNN, MASS.—Charles H. Spear, Mayor's Clerk, writes us that no legislation has been taken as yet in reference to the erection of the proposed municipal plant.

SOUTHBORO, MASS.—This town is said to have decided to light the streets with electricity.

CAMDEN, N. Y.—The trustees are reported as considering the question of calling a special election to vote on an issue of bonds for erecting a municipal plant.

MARATHON, N. Y.—This village has, according to reports, sold \$8,500 in bonds for erecting a municipal plant. J. W. Livingston, Village Clk.

WOODBURY, N. J.—The question of calling a special election to vote on an issue of bonds for erecting a municipal plant is being considered by the council, according to reports.

BEAVER FALLS, PA.—It is stated that the Standard Steel Co. will erect an electric plant at its works at once.

RANKIN, PA.—The Monongahela Light & Power Co. will, according to reports, erect a large plant here and abandon its one at Homestead. J. Bryan, Ch. Eng., Pittsburg.

BALTIMORE, MD.—Bids were asked until Dec. 26 for erecting an electric plant, complete in Druid Hill Park. Charles E. Phelps, Jr., Ch. Eng. Electrical Com., T. G. Hayes, Pres. Bd. Awards.

WELLSBURG, W. VA.—The Wellsburg Electric Light, Heat and Power Co. is said to have let a contract to the Pittsburg Engineering Co., Pittsburg, Pa., for two 100 HP gas engines and one 2000 light, incandescent dynamo, to cost about \$9,000.

AUGUSTA, GA.—The special light committee is said to have made a favorable report to the council on the plan to erect a municipal plant.

ARCADIA, FLA.—It is stated that the contract for erecting the plant here for J. J. Heard, J. L. Jones, J. H. Treadwell and others, has been let to the Johnson Law Co., of Jacksonville. The plant will have a capacity of 1,000 lights.

JEFFERSONVILLE, IND.—Press reports state that C. S. Knight, of Fort Wayne, has sold the Jeffersonville Light & Water Co.'s plant to a company represented by Clarke Smith, of Boston, Mass.

WARASH, IND.—It is stated that the electric plant and water works are to be consolidated and a common power station will be used for both systems.

DETROIT, MICH.—F. T. Houk, 84 Griswold St., is said to have completed plans for a power house 197x62 ft. at the works of the Great Northern Portland Cement Co.

MUSKEGON, MICH.—Marsdon Flick and Theodore Barber, of Wilkesbarre, Pa., are said to have purchased controlling interests in the Muskegon Street Ry. Co. and the Muskegon Gas Light Co., and will at once improve the plants.

PEORIA, ILL.—The Peoria Gas & Electric Co. has increased its capital stock from \$500,000 to \$1,000,000. It is stated that the plants will be extended and improved.

WARREN, ILL.—Press reports state that a plant is to be erected here, to cost about \$10,000.

WATERLOO, ILL.—George W. Ziebold, Mayor, writes us that the officers of the local plant submitted a proposition to sell their plant to the city, which offer was accepted. The city thereby acquired the present plant and therefore no bids were opened Dec. 18 for erecting a new plant. The city is now asking bids on the revised specifications for new machinery, consisting of an engine, dynamo and station appliances; also new poles and line addition to present line plant, to be opened Jan. 3.

KENOSHA, WIS.—The Kenosha Electric and Gas Co. has had plans prepared for an electric plant here, to cost about \$35,000.

MT. AYR, IA.—Reports state that a special election will shortly be held here to vote on the question of erecting a municipal plant and water works.

BALDWIN, KANS.—The people of this city are said to be considering the question of installing a plant, water works and a sewerage system.

LINCOLN, NEB.—The special lighting committee is said to be considering the question of erecting a plant at the Mockett pumping station or one at the Rice pumping station.

STELLA, NEB.—The people of this town are said to have formed a company which will apply to the council for a franchise for erecting a plant.

MAYSVILLE, MD.—Press reports state that this town is considering the question of establishing a plant.

CHICKASHA, IND. TERR.—A. B. Campbell, of Minco, E. E. Blake, of El Reno, Okla. Terr., and H. B. Johnson, of Chickasha, are said to have formed a company with a capital of \$250,000 to erect a plant and water works here.

NORMAN, OKLA. TERR.—Hon. J. C. Walls and Frank Essex are said to have applied to the council for a franchise to erect a plant.

MERCED, CAL.—S. C. Connell, Cy. Clk., writes us that this city has just sold \$40,000 in bonds for constructing a system, but that nothing has yet been done toward letting contracts.

OTTAWA, ONT.—The special committee appointed to report on the proposed purchase by the city of the plant of the Ottawa Electric Co. has advised that nothing be done at present, because of the terms asked by the company.

SLOCAN CITY, B. C.—A company has, according to report, been formed to develop the water power in Goat Creek, at a cost of about \$40,000.

MONTREAL, QUE.—Albion Ames, Hart and Lamonde have been appointed a sub-committee to prepare new plans and specifications for the city lighting; are also said to be considering the question of erecting a municipal plant. Press reports state that the Royal Electric Co., 91 Queen St., will start next spring to place its wires under ground, at a cost of about \$1,000,000. Hon. J. R. Thibault, Pres.; W. H. Browne, Mgr.

NEW COMPANIES.—Interstate Electrical Wire Subway Co., Kansas City, Mo.; \$1,000,000; W. S. Woods, Wm. Huttig, Jos. J. Helm.

Grimes Creek Electric Power Co., New Jersey Corporation Guarantee & Trust Co. Bldg., Camden, N. J.; \$100,000; Herman Hoopes, T. Gordon Janney, Wm. F. Eldell.

Ellwood Power Co., Ellwood City, Pa.; \$1,000; S. A. Redfern, H. A. Todd, H. P. Richardson, J. E. Alken.

Oelwein Light, Heat & Power Co., Oelwein, Ia.; \$100,000; J. Jamison, W. Walker, Oelwein.

Olympia Light & Power Co., Olympia, Wash.; \$165,000; H. Stevens, F. W. Wildes, L. B. Faulkner.

BRIDGES

KITTERY, ME.—The plans for the new bridge to be built between Kittery and the navy yard have been forwarded to Washington. The bridge will be built in the spring.

PORTLAND, ME.—The Secretary of War has notified Frank W. Robinson, Mayor, that the War Department will require the widening of the draw of the Vaughan bridge, between the cities of Portland and South Portland, to be not less than 60 ft. It will probably mean the construction of a new steel bridge, 1,314 ft. in length; estimated cost, \$215,000.

NEW BEDFORD, MASS.—Bids are asked until Jan. 23 for constructing the metal work of the New Bedford and Fairhaven bridge, as stated in our advertising columns. Chas. S. Ashley, Mayor. Wm. F. Williams, Cy. Engr.

SALEM, MASS.—The proposition of building a bridge over Bass River between Salem and Peabody is being considered by the citizens of Salem, Beverly and Peabody.

BATH, N. Y.—It is stated that a new iron bridge is to be built over the Canisteo River at the village of Ervin, to replace the present wooden structure.

BUFFALO, N. Y.—Local papers state that Senator-elect Henry W. Hill will ask for an appropriation of \$25,000 for the building of a steel bridge over the Ferry St. crossing of Black Rock Harbor. Two years ago \$18,000 was appropriated.

LONG ISLAND CITY, N. Y.—The Citizens' Committee of Forty has decided to send a committee to Washington to ascertain from the War Department the cause for the delay in acting on the plans for the proposed Blackwell's Island bridge.

PITTSBURG, PA.—Bids have been received by Thomas Rodd, Ch. Engr. Pennsylvania lines west of Pittsburgh, for constructing the proposed P. F. W. & C. bridge across the Allegheny River at 11th St. It is said that the contract will be let in a few days. The structure will cost about \$700,000 and will take 10,000 tons of steel.

POTTSVILLE, PA.—Bids are asked until Dec. 27 for repairs of three county bridges in North Union township. H. J. Muldoon, County Controller.

READING, PA.—It is reported that J. J. Deery, Arch., 1014 Betz Bldg., Philadelphia, has plans for a double track railway bridge across the Schuylkill river for the Reading Warehouse & Bridge Co., to be of steel and 2,000 ft. in length.

RICHMOND, VA.—It is stated that a new bridge is soon to replace the present Mayo's bridge. Bids are reported to have been received for the work, and contracts are to be let in the next few weeks. The structure will be one of the most substantial bridges across the James River, and will be built by the Mayo Bridge & Land Co. Julius Baker, Secy.

ATLANTA, GA.—Measurements have been taken by City Engineer Clayton and assistants for the proposed viaduct over the railway tracks at the Peters St. crossing. Plans will be prepared. The structure will have a clear span of 150 ft. The engineers of the roads interested will be with the City Engineer on Dec. 28 and make the survey.

SHEFFIELD, TENN.—The Southern Ry. will commence the construction of an iron bridge across Spring Creek at Tusculuma, to replace the present structure, according to reports. W. H. Wells, Civil Engr., Washington, D. C.

CINCINNATI, O.—The board of public service has approved the estimate of the cost of the repairs of the Liberty St. viaduct, submitted by Chief Engineer Stanley. The estimate put the cost at \$32,500.

YOUNGSTOWN, O.—It is stated that the Youngstown & Sharon Ry. Co. will assist in the building of the proposed viaduct at McGuffey St. across the railway tracks. The other companies will be asked to share the expense.

ROCK ISLAND, ILL.—Local papers state that the bridge committee of the county board has let contracts for the erection of four steel bridges in Bowling, two in Coo, and one in Black Hawk township.

AITKIN, MINN.—Bids are reported wanted until Jan. 8 for constructing a wooden bridge across the Willow River at Tibbett's ranch, to be 110 ft. in length. J. S. Campbell, County Auditor.

DULUTH, MINN.—The council's committee appointed to investigate the feasibility of an aerial bridge across the Dutch ship canal, to cost about \$100,000, has reported favorably on the subject, according to reports.

WATERTOWN, WIS.—G. H. Stanchfield, Cy. Engr., informs us that the contract for constructing a three-span plate girder bridge across the Rock River at Cady St. has been let to the E. Kunert Mfg. Co., Watertown. The total length will be 167 ft.; roadway 18 ft., with two five ft. sidewalks.

BUTTE, MONT.—The County Commissioners have awarded the contract for constructing a steel combination wagon bridge over the Yellowstone River, east of Billings, to W. S. Hewitt, at \$9,940.

TOWNSEND, MONT.—The Commissioners have received plans for bridges ranging from \$9,000 to \$12,000, and now have the same under consideration, according to reports.

POTEAU, IND. TER.—Reports state that the merchants of this town are going to build a bridge across the river at an early date.

SANTA ANA, CAL.—The County Supervisors have inspected the county roads and bridges and have found that a number of small structures will need rebuilding.

WELLAND, ONT.—The County Council, it is stated, will ask the Dominion government to build a new bridge at Montrose.

BUILDINGS.

BRANDON, MASS.—Bids are asked until Jan. 28 for erecting a new church building for the Presbyterian congregation. J. McDiarmid, M. D., Chn. Bldg. Com.

CHARLESTOWN, MASS.—The trunk and bag factory here, occupied by Cutter & Cutter, 22 Chaucey St., Boston, was recently burned, loss about \$200,000.

MERIDEN, CONN.—The Council is said to have secured a site at Catlin and Benjamin Sts., on which to erect the new library building.

NEW HAVEN, CONN.—The board of education has directed the committee on schools to advertise for competitive plans for the new school house on Cedar St.

BROOKLYN, N. Y.—Plans have been filed by Rev. J. D. Kennedy, 85 Keap St., for a 2-story brick parish house, 48 x 85 ft., at Brooklyn Ave., near Union St., to cost about \$30,000. H. M. Condon & Son, Archs., 185 Broadway, New York; by G. F. Keim, 734 Macon St., for 21 2-story frame dwellings, 19 x 6 ft. at Jefferson Ave., near Hamburg Ave., to cost about \$84,000. L. H. Voss, Arch., 65 De Kalb Ave.; by H. P. Englehardt, 586 Decatur St., for six 3-story brick stores and tenements, 25 x 65 ft., at Hamburg Ave., near Grove St., to cost about \$39,000. Theophilus Englehardt, Arch., 905 Broadway; by Ellen Murphy, 529 Seventh St., for two 4-story brick flat houses, 26 x 83 ft., at Eighth Ave., near Seventh St., to cost about \$28,000. Frank S. Lowe, Arch., 186 Remsen St.; by Benjamin C. Raymond, 264 60th St., for five 3-story brick dwellings, 20 x 45 ft., at Dean St., near Kingston Ave., to cost about \$27,500.

GOVERNOR'S ISLAND, N. Y.—Bids are asked until Dec. 28 for constructing a storehouse here. S. R. Jones, Q. M.

NEW YORK, N. Y.—We are informed that Frank Jewell, care of Leslie P. Mick, 220 Broadway, is now receiving bids for two 5-story brick apartment houses, 50 x 100 ft., at 129th St., near Seventh Ave., to have steam heat and electric lights, to cost about \$40,000. Ormstead Tait, Arch., 1238 Madison Ave. The Chamber of Commerce is said to have bought a site at the corner of Nassau and Pine Sts., on which it intends to erect its new building.

NEW YORK, N. Y.—Bids are asked by the board of education 59th St. and Park Ave., until Jan. 7 for erecting an addition to public school No. 133 at 167th and Fox Sts., Bronx, and for erecting new public school No. 137 at Saratoga Ave., near Chauncey St., Brooklyn.

SCHENECTADY, N. Y.—The General Electric Co. is said to have let the contract to the Prescott & Buckley Construction Co., Plattsburgh, N. Y., for erecting a new 6-story brick office building 150 x 210 ft., to cost about \$250,000.

CAPE MAY, N. J.—The following bids have been received by Seymour Davis, 907 Walnut St., Philadelphia, Pa., for erecting a new school house here: Beard & Fink,

Reading, Pa., \$26,888; Makin & Brown, Philadelphia, Pa., \$27,000; M. P. Wells & Son, Philadelphia, \$27,785; Church & Co., Cape May, \$28,330. Bids were received on five different kinds of stone.

WEPHAWKEN, N. J.—Reports state that the N. Y. C. & H. R. R. Co. will erect a grain elevator here, to have a capacity of about 2,000,000 bushels, to cost about \$1,500,000. W. J. Wilgus, Ch. Engr., New York, N. Y.

BEAVER FALLS, PA.—James Piper is said to be preparing plans for an 8-story brick theatre building 60 x 172 ft., on Seventh Ave., for a company in which F. E. Bellman is interested, to cost about \$100,000.

PHILADELPHIA, PA.—Bids are asked until Jan. 12 for erecting a stone and steel building 101 x 51 ft., at the navy yard for a chain shed and anchor rack. M. T. Endicott, Chief Bureau Yards and Docks, Navy Dept., Washington, D. C.

PHILADELPHIA, PA.—Robert A. Pitts, 224 South Third St., is preparing plans for fifty dwellings to be erected at 62d and Vine Sts.—E. C. Freeman, 501 Real Estate Trust Bldg., will erect 26 residences at Elmwood.—The plant of the Franklin-Baker Co., at Delaware Ave., near Fairmount Ave., was recently burned; loss about \$150,000.

BALTIMORE, MD.—The committee on education is said to be in favor of the erection of an addition to the school house at Chestnut and Fourth Aves., to cost about \$40,000.

BALTIMORE, MD.—The board of regents of the Southern Homeopathic Medical College has decided to erect a new college building at North Mount St., near Riggs Ave.—The contract for erecting a residence on North Charles St. for W. Graham Bowdoin, to cost about \$50,000, has been let to George A. Black, 122 East Lexington St.

NORFOLK, VA.—The building occupied by the construction department at the navy yard here was recently destroyed by fire; loss about \$200,000.

RICHMOND, VA.—Press reports state that George Arents will erect a new opera house at 11 Main St.

GREENVILLE, S. C.—It is stated that the board of county supervisors contemplate erecting a new court house here, to cost about \$50,000.

ATLANTA, GA.—Willis F. Denny, Equitable Bldg., is said to have prepared plans for a 10-story brick hotel building, at Peachtree and Luckie Sts., to cost about \$300,000, for George Parrott, Samuel Barrett and others.

MONTEVALLO, ALA.—The legislature has appropriated \$45,000 for completing the building of the Girls' Industrial School.

STARKVILLE, MISS.—Bids are asked by the board of supervisors until Feb. 5 for erecting a new court house. W. W. Edwards, Ch. Bd.

CHATTANOOGA, TENN.—Andrew Carnegie is said to have offered the council \$50,000 for erecting a new public library building.

CINCINNATI, O.—McKim, Mead & White, 160 Fifth Ave., New York, N. Y., are said to have prepared plans for several new buildings on Clifton Ave. for the University of Cincinnati, to cost about \$1,000,000. Howard Ayres, Pres.

CLEVELAND, O.—Press reports state that the Cleveland School of Arts will erect a new building, to cost about \$100,000. Address Prof. Charles F. Olney.

CLEVELAND, O.—On Jan. 10 Charles P. Salem, Auditor of the board of education, will sell \$50,000 in bonds for erecting new school houses.

INDIANAPOLIS, IND.—The following bids have been received for erecting a new building for the incurable insane at the Central Hospital: Henry Auferderheide, 434 Pine St., \$86,728 (accepted); John A. Schumacher & Co., \$88,927; William P. Junglauss & Co., 7 Pembroke Arcade, \$87,900; George B. Stanley, 329 Adelaide St., \$88,555; Ferdinand C. Smock, 427 Lemcke Bldg., \$99,500.

BEAVERTON, MICH.—Bids are asked by the building committee of school district No. 3, Tobacco Township, until Jan. 5 for erecting a new school house.

BENTON HARBOR, MICH.—Press reports state that the Order of Patricians will erect an 8-story business block here.

CHARLESTON, ILL.—Press reports state that a special election will be held Jan. 15 to vote on the question of issuing \$150,000 in bonds for erecting a new court house.

CHICAGO, ILL.—John D. Rockefeller has given the University of Chicago \$1,500,000, of which \$500,000 will probably be used to erect a new library building.—Frost & Granger, The Temple, are said to have completed plans for a 10-story brick warehouse, 125 x 420 ft., on North Wabash St., for Hibbard, Spencer, Bartlett & Co., to cost about \$500,000.—It is stated that the Rialto Elevator Co., representing Nye, Jenks & Co., of Duluth, Minn., will erect a grain elevator here with a capacity of 1,000,000 bushels, to cost about \$400,000.—Reports state that White & Coleman will erect a 4-story brick and stone apartment house, 190 x 125 ft., at Washington Ave. and Jackson Park Terrace, to cost about \$125,000.—Howard Shaw, 115 Monroe St., is said to have completed plans for a 7-story brick addition, 75 x 101 ft., to the Lakeside Press Bldg., Plymouth Place, near Polk St., for R. E. Donnell & Sons Co., to cost about \$100,000.—Arthur Foster, 4310 Cottage Ave., has, according to reports, completed plans for a 3-story brick apartment house, at Washburn Ave. and 50th St., for Harris & McGimsey, to cost about \$50,000.

CHICAGO, ILL.—Plans have been filed by the board of education for a 1-story brick holler house at 210 Maxwell St., to cost about \$35,000. W. B. Munde, Arch., N. Y. Life Bldg.; A. Motschman, Builder; by Mrs. Addie L. Tyler for two 1-story brick residences, 31 x 69 ft., at 5401 East End Ave., to cost about \$30,000. F. W. Perkins, Arch., Montauk Bldg.; C. W. Damler & Sons, Builders, 218 La Salle St.; by Morris Curran, 6257 Greenwood Ave., for a 3-story brick apartment house, 96 x 117 ft., at 5801 to 5800 Calumet Ave., to cost about \$55,000. Bishop & Co., Archs., Calumet Bldg.; Frank Burke, Builder, 573 62d St.; by H. B. Hall, for a 3-story brick apartment house, 127 x 48 ft., at 5900 Prairie Ave., to cost about \$35,000. Murphy & Camp, Archs., 279 Dearborn St.; William Ritchie, Builder, 92 a La Salle St.; by H. A. Harsh, for a 3-story brick apartment house, 50 x 110 ft., at 7056 Eggleston Ave., to cost about \$30,000. Robert Rac, Jr., Arch., 226 La Salle St.; G. W. Snyder, Builder; by the Babst Brewing Co., for a 2-story brick office and barn building, 35 x 315 ft., at 91-93 North Union St., to cost about \$24,000. L. Leslie, Arch., 812 Schiller Bldg.; Herman Mueller, Builder.

EVANSTON, ILL.—It is stated that the people of this city will vote on the question of a site for the new library building, to cost about \$100,000.

PARSONS, KANS.—C. Rockhold, Mayor, writes us that this city does not contemplate erecting a city hall building.

ST. LOUIS, MO.—The following bids were received Dec. 15 by James K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C., for installing an electric elevator plant and an electric house pump in the U. S. building

here: Whittier Machine Co., Boston, Mass., \$32,835, 120 days; Eaton & Prince Co., Chicago, Ill., \$32,220, 120 days; the Winslow Bros. Elevator Co., \$26,187, 120 working days; Glezer Fiske & Koop, St. Louis, Mo., \$19,800, 120 days; Otis Elevator Co., New York, N. Y., \$23,850, 120 days; Sprague Elevator Co., New York, N. Y., \$31,487, 120 days; Stokes & Parrish Elevator Co., Philadelphia, Pa., \$32,240, 120 days.

ST. LOUIS, MO.—Plans have been filed by A. M. Finley for a new church building at Russell and Spring Sts., to cost about \$20,675, and by the police department for a 3-story station house at 3556 Magnolia St., to cost about \$20,000.

FORT SMITH, ARK.—The following bids were received Dec. 14 by Jas. K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C., for installing an electric elevator plant in the new U. S. building here: Eaton & Prince Co., Chicago, Ill., \$5,980, 100 days; Otis Elevator Co., New York, \$5,430, 80 days; Winslow Bros. Elevator Co., Chicago, Ill., \$4,273, 90 working days.

CORSCANA, TEX.—It is stated that an election will be held Jan. 8 to vote on the question of issuing \$25,000 in bonds for erecting a new high school building.

DALLAS, TEX.—The county commissioners are said to have authorized an issue of \$137,000 in bonds for erecting a new court house.

EL PASO, TEX.—Press reports state that on Jan. 6 the city treasurer will sell \$75,000 in bonds for erecting new school buildings.

TERRELL, TEX.—The people recently voted to issue bonds for erecting new school houses.

SPOKANE, WASH.—Local papers state that the Spokane Athletic Club will erect a club house here, to cost about \$40,000.

MOKELUMNE HILL, CAL.—Bids are asked by the board of supervisors until Jan. 8 for erecting a detention hospital building at San Andreas. J. S. Jack, Clerk.

NELSON, B. C.—Bids are asked until Jan. 5 for erecting a post office building here. Jos. R. Roy, Acting Secy., Dept. Pub. Wks., Ottawa, Ont.

DURHAM, ONT.—Press reports state that the council will submit to the people the question of issuing \$70,000 in bonds for erecting a new town hall.

WATER-WORKS.

CAMDEN, ME.—No steps have yet been taken regarding the proposed works, excepting a preliminary examination by E. C. Gordan, of Portland, Me., at the request of the committee of which W. Howard Gardiner is Chairman. Under Maine laws the legislature must have a special charter from the legislature before any definite arrangements for construction can be made. A bill will be introduced early in the coming session authorizing Camden to build works, and until the bill passes nothing further can be done.

BROOKLINE, MASS.—Bids are asked by the water board until Feb. 19 for furnishing and installing a \$5,000,000-gallon pumping engine at the low service pumping station, as stated in our advertising columns. F. F. Forbes, Supt.

GREAT BARRINGTON, MASS.—M. I. Wheeler, Herbert C. Joyner and Wm. C. Hinman have been appointed a committee to examine the condition of the works and to employ an engineer to report on the proposed improvements or for constructing new works to cost about \$100,000. P. A. Russell, Chn. Water Comrs.

HARTFORD, CONN.—The water commissioners are considering the question of building a catch water canal to divert water of Dead Swamp from reservoir No. 4, to cost about \$20,000, or to dredge a portion of the swamp, at a cost of \$100,000, or the whole swamp of 350 acres to a depth of 5 ft., at a cost of about \$1,100,000. The question of a filter at reservoir No. 4 is also being considered, but as no work can be started before summer nothing definite has been decided upon.

LESTERSHIRE, N. Y.—It is likely that the question of building a reservoir will again be voted upon at the March election.

LOCKPORT, N. Y.—S. Q. Mingle, Supt. Depew Improvement Co., Depew, N. Y., has submitted a proposition to furnish this city with a new water supply. He will deposit a bond for \$50,000 and \$100,000 additional to guarantee the carrying out of the work. This is the third proposition received inside of a month. Address Mayor Suttiff and City Clerk Van Valkenburg.

BLOOMFIELD, N. J.—Local papers are urging the council to engage experts to make investigations for a new water supply. The question of forming a water company is also said to be under consideration.

EAST ORANGE, N. J.—The present contract with the Orange Water Co. does not expire for 17 months, and so far the city has made no definite plans for a future supply. Edward E. Bruen, Mayor.

JERSEY CITY, N. J.—Bids are asked until Jan. 6 for furnishing the materials and for laying a 10-in. cast-iron hydrant, etc., water mains in Brown Place. Geo. T. Boutwell, Chn. Bd. Street and Water Comrs.

LONG BRANCH, N. J.—Reports state that the Tintern Manor Water Co. has under way and is planning the construction of works to furnish water to Long Branch, Seabright, Red Bank, Eltheron, Atlantic Highlands, Asbury Park, Ocean Grove and a number of other coast towns in Monmouth county. A dam 600 ft. long and 41 ft. high is being built on Swimming River, near Freehold. There will be a spillway 155 ft. long and another dam 600 ft. long and 10 ft. high. The reservoir will have a capacity for 3,000 million gallons of water. John L. Wentz and Jos. J. Jermyn, of Scranton, Pa.; C. C. Higgins, of Pound Ridge, N. Y., and Chas. D. McGuire, of New York, are interested.

BOLIVAR, PA.—The Garfield Water Co. has been incorporated with a capital of \$1,000.

GLEN ROCK, PA.—D. G. Adelsberger, 722 Pennsylvania Ave., Baltimore, Md., is reported to have prepared a report for works for this place, to cost about \$18,000.

KNOXVILLE, PA.—Wm. J. Hunter, Knoxville, Pa.; John L. Sheppard, of Pittsburg, and W. W. Murray, County Comr., of Bridgeport, Pa., are directors of the Carrick Water Co., the Beaumont Water Co., etc., recently incorporated with a capital of \$1,000 each, as noted in our issue of Dec. 6. The new companies are for the purpose of extending the lines of the St. Clair Water Co., of the South Side, Pittsburg, to nearby towns. It is not known when work will begin.

MEDIA, PA.—Steps are being taken to have Ridley Creek condemned for the purpose of securing a water supply of 1,500,000 gallons a day from it.

PITTSBURG, PA.—Bids are asked until 10 a. m. Dec. 29 for furnishing and laying a cast iron supply main from Highland reservoir No. 2 to Smithfield St. and 2d Ave., and also a riveted steel supply main from the reservoir to 1st St., to cost in all about \$700,000. The mains will be about 37,000 ft. long, and from 48 to 36 ins. in

diameter. The bond required will be \$1,000,000. There will be 15 new valves, the largest being 48 ins. in diameter, and a large number of hydrants. This is the largest contract, next to the proposed filtration plant, that the city will let this season. Geo. W. Wilson, Dir. Dept. Pub. Wks.

READING, PA.—F. P. Heller, Pres. Water Bd., is understood to be in favor of tunneling Mount Penn for an increased water supply, to cost about \$25,000.

WAYNESBURG, PA.—Reports state that a company is being organized to build works for this place.

NEW CASTLE, DEL.—The question of new works and an electric plant is being considered.

YARDLEY, PA.—The Yardley Water Co. has been incorporated with a capital of \$1,000.

WASHINGTON, D. C.—The Senate Committee on the District of Columbia will consider a report received from Dr. Sam'l C. Busey and others of the Medical Society to investigate the matter of a plant for the filtration of the water of the Potomac River.

WOODSTOCK, VA.—It is expected to have plans and specifications for the proposed works ready for hidlers in a few days. The water supply will be secured from Massanutten Mountain. Estimated cost, \$20,000. Pop., 1,100. Chas. S. York, Engr., Baltimore, Md.; J. H. Roderfer, Mayor.

DURHAM, N. C.—Reports state that an election will be held Jan. 7 to vote on the question of issuing \$100,000 in bonds for works.

THOMSON, GA.—An election will be held in February to vote on the question of issuing \$25,000 in bonds for works. Ira E. Farmer, Mayor.

GADSDEN, ALA.—The legislature has granted this city permission to issue \$100,000 in bonds to buy the works of the Gadsden Water Co. and to build a city hall.

CINCINNATI, O.—Bids are asked until Jan. 15 for furnishing and erecting a steel shell extension to the pump shaft for the Eastern Pumping Station, near California. C. G. Roth, Chk. Comrs. of Water-Works.—The following are the bids received Dec. 18, along with those formerly opened, for furnishing and erecting four pumping engines and an electric crane for the new water-works:

| Bidders. | Pumping engines. | Elec. crane. |
|----------------------------------|------------------|--------------|
| Holly Mfg. Co., Lockport, N. Y. | \$1,057,000 | \$6,000 |
| April 17, 1900..... | 987,700 | 10,000 |
| Oct. 2..... | 917,000 | 10,000 |
| Dec. 18..... | | |
| Camden Iron Works, Philadelphia. | \$26,000 | 12,000 |
| April 17, 1900..... | \$41,800 | 9,750 |
| Oct. 2..... | \$807,500 | 9,000 |
| Dec. 18..... | | |
| Kilby Mfg. Co., Cleveland, O. | \$19,350 | 10,000 |
| April 17, 1900..... | \$40,850 | 8,750 |
| Oct. 2..... | \$87,257 | 9,500 |
| Dec. 18..... | | |
| E. P. Allis Co., Milwaukee, Wis. | 1,287,500 | 12,500 |
| April 17, 1900..... | 1,044,000 | 11,000 |
| Oct. 2..... | (a.) 984,400 | 9,800 |
| Dec. 18. (b.)..... | 995,000 | 9,600 |
| (c.)..... | 999,500 | 9,600 |

CUYAHOGA FALLS, O.—Bids are asked until 12 noon, Dec. 29, for furnishing about seven miles of c. i. water pipe for the new works. There will also be a standpipe on an elevated tank. The water will be secured from wells, Pop. 4,000. L. E. Chapin, Engr., Canton, O.; G. R. James, Water-Works Trustee.

PERU, IND.—Reports state that this place will sink new wells for an increased water supply.

HESPERIA, MICH.—Chas. Buck, of Fremont, Mich., is reported to have purchased \$3,000 of 60% bonds for the purpose of building works here.

MOUNT CLEMENS, MICH.—City Engineer Irwin estimates that it will cost about \$168,000 to move the works to the mouth of the river at Belvidere or \$140,000 to the hay above the mouth of the river. In either case the intake pipe will extend about 8,000 ft. into Lake Michigan. The question of issuing bonds for the improvement will probably soon be voted upon.

CHARITON, IA.—Geo. Cadogan Morgan, Civil Engr., 808 Royal Insurance Bldg., Chicago, Ill., has submitted a proposition for works, the committee to report on the matter this week.

FAIRBURY, NEB.—The council is considering a proposition to grant a franchise to build works to cost about \$60,000.

HOOPER, NEB.—The question of issuing bonds for new works will probably soon be voted on. John Hough and Fred F. Heine compose the committee.

SISSETON, S. DAK.—Bids are asked until Jan. 3 for furnishing the materials and for constructing works. Address Prof. J. J. Fletcher, of the State University, Minneapolis, Minn., or Paul Babeock, Sisseton.

SPEARFISH, S. DAK.—Reports state that a new pipe line is proposed for bringing water to this place.

BOWDON, N. DAK.—The town board proposes to build works, the water to be secured from wells.

FORT LINCOLN, N. DAK.—Plans for works, to include the air lift system, are being prepared by the government P. O., Bismarck.

CHEYENNE, WYO.—Reports state that Dr. Wm. C. Mitchell, of Denver, Colo., has recommended that the present filter beds be abandoned, and that a new sand filter bed be built or that a new source of water supply be secured.

APPLETON CITY, MO.—The Appleton City Water & Power Co. has been incorporated with a capital of \$5,000 by R. N. Burns, J. B. Egger and T. C. Brown, of Appleton City.

ST. LOUIS, MO.—The Board of Public Improvements has submitted an adverse report on the proposition of G. E. M. Pratt for supplying this city with water by gravitation from the Meramac Spring and watershed. It is stated that the interests Mr. Pratt represents will submit a new proposal. The committee consists of Edward Flad, Water Comr.; E. A. Hermann, Sewer Comr.; Henry Alt, Harbor and Wharf Comr., and Robt. E. McMath, Pres.

AUSTIN, TEX.—The question of appropriating \$10,000 for a new pumping engine is being considered by the commission. Address Superintendent Patterson.

ALVA, OKLA. TER.—This place is reported to have decided to build a reservoir.

LOS ANGELES, CAL.—Robt. Beyrie has been awarded the contract for constructing the headworks for the proposed municipal works at \$55,850. The itemized bids are given under Contract Prices. C. H. Hance, Cy. Clk.

SAN RAFAEL, CAL.—The Richmond Water Co. has been incorporated with a capital of \$10,000 by W. Mintzer, of Marin county, Cal., and J. H. Nichol, of East Oakland, Cal.

SACRAMENTO, CAL.—The citizens' water committee has decided to engage Engineer Wagner, of Chicago, to report on the subject of installing a mechanical filtration plant. M. R. Beard, of the Board of Trustees.

SAN DIEGO, CAL.—The city intends to buy a complete distributing system owned by a private company. F. B. Waters, Alderman.

PHOENIX, ARIZ.—Congress will be asked to grant this city permission to build works to supply this and other places in the Salt River valley with water; estimated cost, about \$2,000,000.

ARNPRIOR, ONT.—Plans for works, the water supply to be secured from the Madawaska River, have been approved by the Provincial Board of Health.

OSHAWA, ONT.—The contract for new works will probably be let early next month. Pop. 4,500. Galt & Speakman, Engrs., Canada Life Bldg., Toronto, Ont.

PENTANGUSHENE, ONT.—The question of issuing \$3,000 in bonds for extending the works and \$25,000 as a bonus to the Firstbrook Box Co., of Toronto, Ont., for the erection of a factory will be voted upon Jan. 7.

WIARTON, ONT.—Reports state that the council proposes to issue \$5,000 in bonds for extending the works, etc.

IRRIGATION.

LAKE CHARLES, LA.—W. M. Wilson, Gen. Mgr. writes us that the Enterprise Rice & Farm Co., Ltd., is considering the boring of three or four artesian wells.

SPEARFISH, S. DAK.—The council is said to have passed an ordinance providing for the issuance of \$4,000 in bonds for the purpose of providing water for domestic irrigation purposes.

CHEYENNE, WYO.—A. J. Parshall, Asst. State Engr., writes us that the surveys which he made in Big Horn county were for the U. S. Geological Survey, and until some appropriation is made nothing will be done in the way of construction.

ALVIN, TEX.—The Alvin Fruit & Nursery Co. is said to have let a contract to Benjamin Worley, of Corsicana, for drilling an 8-in. well to irrigate 300 acres. R. H. Bushway, Vice-Pres.

BEAUMONT, TEX.—Bids are wanted by the McFaddin-Wells Canal & Irrigation Co. for constructing a canal 2,000 ft. long, 40 ft. wide and 8 ft. deep near this city.

EAGLE LAKE, TEX.—The Eagle Lake Rice Irrigation Co. was recently incorporated by B. L. Vineyard, B. F. Waller, A. M. Waugh and others, with a capital of \$200,000, to construct an irrigation canal about 20 miles long on the east bank of the Colorado River, beginning near the northwest corner of the McLain and McNair leagues in Colorado county, and running into Moore's branch, thence into Eagle Lake, irrigating about 10,000 acres of land.

ORANGE, TEX.—L. F. Daniels, C. E. of Beaumont, is said to be locating the route for the irrigating canal to be constructed by the Cow Bayou Rice & Trust Co. This canal will be six miles in length, running west four miles and south two miles. A new pumping station will be put in on Cow hayou and a flume will lead from there to a ten-acre reservoir, from which the canal will extend south and west, the canal leading west being eighty feet wide and the one leading south fifty feet.

DENVER, COLO.—The New Sand Creek Lateral Irrigation Co. has been incorporated by August C. Boyle, Solomon Hopkins and others to irrigate lands near here. The Western Construction Co., in which I. H. A. Trambach is said to be interested and of which Thomas E. Withers is Chief Engineer, has filed plans with State Engineer McCune for a reservoir at the head of the St. Vrain River covering 544 acres and with a capacity of 1,200,000 gallons of water.

MONTROSE, COLO.—John E. Pilton is said to be interested in the plan to build a water tunnel from the Gunnison River, in Black Canon, through the mountains for four miles to furnish water for irrigating the Uncompahgne Valley.

NORTH YAKIMA, WASH.—Press reports state that E. E. Burlingame has secured the contract for constructing the new Selah-Moxee high line canal. The work comprises a ditch 26 miles long, 15 feet on the bottom and 30 feet on top, with a carrying capacity of 150 cu. ft. per second. A large amount of fluming work is necessary, at least four miles of the ditch being along the Selah mountains. The canal is under the management of G. H. Rankin and T. W. Clark, who, in connection with J. W. Cline and others of Seattle, have secured the money for the construction. The work will cost about \$50,000.

BAKER CITY, ORE.—We are informed that surveys have been completed and work will be started next year on the new reservoir about one mile from this city for the Powder River Land and Irrigation Co., to have a capacity of 280,000,000 cu. ft., to irrigate about 18,000 acres of land. Water will be taken from the Powder River. C. M. Foster, Engr., F. S. Lack, Gen. Mgr.

DOWNY, CAL.—The directors of the Arrow Ditch & Water Co. are said to be considering the question of spending \$10,000 for the extension of flumes in the company's ditches.

PASADENA, CAL.—Reports state that the Sierra Madre Water Co. has decided to issue from \$30,000 to \$40,000 in bonds for installing a complete irrigation system.

SEWERAGE.

PEABODY, MASS.—The trustees are said to be considering the question of erecting a disposal plant.

NEW BRITAIN, CONN.—The sewer committee has decided to construct a sewer in Elm St., to cost about \$1,500.

HEMPSTEAD (L. I.), N. Y.—Press reports state that this town is considering the question of constructing a system.

NEW YORK, N. Y.—Bids are asked by the department of sewers, 21 Park Row, until Jan. 2 for 5,000 barrels of Maine Rock lime at the sewage disposal works in Brooklyn for constructing sewers in Naegle and Tenth Aves., and for altering and improving the sewer in Third Ave. between 113th and 117th Sts. Jas. Kane, Comr.

SYRACUSE, N. Y.—The council has decided to construct an 18-in. pipe sewer in Fulton St., to cost about \$4,184.

WATERFORD, N. Y.—The sewer committee has decided to readvertise for bids for constructing the system in the North Side, as the bids submitted did not cover the specifications, according to reports.

WHITESBORO, N. Y.—This city is said to have sold \$40,000 in bonds for constructing a system.

HOBOKEN, N. J.—Thomas H. McCann, Cy. Engr., writes us that in accordance with a resolution recently passed by the council, he has submitted a report on the proposed drainage of the meadow, which has been sub-

mitted to a committee. The law empowers the council to issue \$100,000 in bonds each year. The report advises the immediate construction of outfall and intercepting sewers and a pumping station, to cost about \$165,000.

JERSEY CITY, N. J.—Bids are asked until Jan. 8 for constructing a sewer in Henderson Ave. Geo. T. Bouton, Chk.

MADISON, N. J.—Joseph N. Drew, of Boston, Mass., is said to be preparing preliminary plans and estimates for a system here, which he will shortly submit to the council.

MONTCLAIR, N. J.—The following bids were received Dec. 10, according to reports, by Harry Trippett, Town Clk., for constructing a system here: Lanzille & Tighe, \$63,375; Donato Fusco, \$80,050; P. McShayne & Son, \$100,810; Pasquale Costoni, \$59,695.

PLAINFIELD, N. J.—Andrew J. Gavett, Cy. Engr., and Joseph Osgood, Consult. Engr., have submitted plans to the State Sewerage Commissioners for a new septic tank to be added to the present disposal system.

CARNEGIE, PA.—James D. White, Borough Engr., 730 Park Bldg., Pittsburg, writes us that as yet the bids for sewer and street improvements have not yet been sold, nor have the streets to be paved and sewerage been selected. The sewers will be mostly 8-in. pipe with an average cut of about 10 ft.

EVERSON, PA.—Press reports state that a company has been recently formed to build a system for this city. M. Morrissey, Treas.; James Keegan, Secy.

PHILADELPHIA, PA.—William C. Haddock, Dir. Pub. Wks., is said to have let the contract for constructing the Cobocksink relief sewer, to cost about \$128,000, to David Peoples, 2508 Callowhill St.

FREDERICKSBURG, VA.—Bids are asked by the sewer committee until Jan. 10 for constructing sewers, as stated in our advertising columns. W. S. Embrey, Chn. Comr.; N. Wilson Davis, Engr.

UNION, S. C.—W. D. Arthur, Cy. Clk., writes us that this city has just sold \$35,000 in bonds and will probably be ready to receive bids for constructing the proposed system in January. J. L. Ludlow, Engr., Winston, N. C.

GAINESVILLE, FLA.—A. J. McArthur, Chn. Sewer Comr., writes us that nothing definite has yet been done toward constructing the proposed system. No estimates have been prepared.

FLORENCE, ALA.—A. G. Negley, Cy. Engr., writes us that the main sewer has been completed and that contracts for the balance of the system will be let in January.

BATON ROUGE, LA.—The contract for constructing the system here has been let to Guild & Co., Chattanooga, Tenn., at \$40,057.

NEWPORT, KY.—B. R. Morton, Cy. Engr., writes us that the board of public improvements has rejected all bids for constructing the proposed system and that no other date has yet been fixed.

AKRON, O.—The sewer committee is said to be considering plans for a new system for this city.

TOLEDO, O.—We are informed that the city will construct about 4,000 ft. of 72 to 12-in. sewers, average cut 19 ft., from Mannes River, in right of way and in Treadwell St., in Wheeling St. from Treadwell St. to the center of the alley south of Massillon St., also in the alley north-west of Front St. from Treadwell St. to the center of the alley northeast of Niles St., to cost about \$17,762. W. F. Brown, Cy. Engr.

MARSHALL, MICH.—Reports state that the council has been petitioned to construct a sewer in Prospect St.

MADISON, WIS.—The city clerk is said to have been directed to advertise for bids for constructing a septic tank system.

WATERLOO, IA.—M. L. Newton, Cy. Engr., informs us that the proposed system will consist of about 3,540 ft. of 10-ft. drain, average cut 15 ft. sides and arch will be of rubble coursing rock and paved bottom of concrete and paving brick, to cost about \$50,000.

JICARILLA, N. MEX.—Bids are asked until Jan. 10 for constructing sewer and water systems at the Jicarilla Indian Agency. W. A. Jones, Comr. of Indian Affairs, Department of the Interior, Washington, D. C.

SPOKANE, WASH.—The council is said to have received the following bids for constructing a sewer in First Ave.: August Hse, \$3,500; T. Olson, \$4,495; R. A. Hutchinson, \$4,593; Peter Costello, \$5,284; James Broad, \$3,465.

PORTLAND, ORE.—The council is said to have awarded the following sewer contracts: J. B. Siemmons, 348 Yamhill St., Schuyler St., \$2,082, and Hancock St., \$1,231; Jacobson Bldg. Co., East Burnside St., \$1,492 and Tillamook St., at \$1,627.

LOS ANGELES, CAL.—Bids are asked until Dec. 31 for constructing storm drains in this city. C. H. Hance, Cy. Clk.

OAKLAND, CAL.—The council has passed a resolution of intention to construct an 8-in. pipe sewer in 18th Ave. C. F. Ott, Supt. Streets.

SAN FRANCISCO, CAL.—The board of public works has let the contract for constructing a sewer in Andover Ave. to the City Street Improvement Co., 10 Mills Bldg., at \$8,093.

SANTA BARBARA, CAL.—The council is said to have decided to construct a sewer in De la Vina St.

HONOLULU, H. I.—Sewer Engineer Edwards has estimated the cost of constructing a storm sewer in Port St. at \$4,800. The governor's council has recommended that Mr. McCandless, Supt. Pub. Wks., proceed with its construction.

NORTH SYDNEY, N. S.—The council has appointed a committee to secure plans and specifications for a system.

SARNIA, ONT.—The council has decided to issue \$40,000 in bonds for constructing a trunk sewer in Federation St.

ST. CATHARINES, ONT.—The council has received four estimates, ranging from \$27,000 to \$37,000, for constructing the proposed Carlton St. trunk sewer.

GARBAGE DISPOSAL—STREET CLEANING

BUFFALO, N. Y.—It is stated that the Baynes Garbage Reduction Works will soon submit plans for the completion of the reduction works here.

ROCHESTER, N. Y.—The contract for collecting and disposing of the city's garbage, waste, etc., for the year has been awarded to Thos. Holoban at \$27,000, as G. Wilbur Burne, who was first awarded the contract at \$29,940, defaulted.

WILMINGTON, DEL.—The Sanitary Garbage Product Co. has been incorporated with a capital stock of \$133,000 by E. J. Mole, J. L. Weatherby and W. McGonigal, Jr., of Philadelphia, Pa.

PENSACOLA, FLA.—The board of public works is said to have let the contract for removing the garbage to J. T. Ray, at \$175 a month.

JACKSON, MICH.—The committee, consisting of F. G. Adler, F. H. Helmer and J. C. Harter, are securing data about garbage crematoriums.

CHICAGO, ILL.—The Wright Crematory Co. has been incorporated with a capital stock of \$100,000 by Walter B. Wright, Henry J. Merceret and F. E. Abrams.

DENVER, COLO.—The mayor has recommended that \$35,000 be appropriated for cleaning the streets during the day. Felix O'Neill, Supt. St. Cleaning Dept.; J. B. Hunter, Cy. Engr.

CHATHAM, ONT.—The question of the better cleaning of the streets is being considered.

STREETS AND ROADS.

WOONSOCKET, R. I.—Councilman Charles W. Cook informs us that the matter of an appropriation of \$50,000 for paving Main, Clinton and Social Sts. is in the hands of the joint standing committee on highways, which has not as yet made its report. Frank W. Mills, Cy. Engr.

ROCKVILLE, CONN.—The council has appropriated \$3,000, and has authorized the board of public works to purchase a road roller.

BALLSTON SPA, N. Y.—It is stated that the county will construct about six miles of macadam road in the town of Moreau from the town line of Wilton to South Glen Falls, to cost about \$4,500.

NEW YORK, N. Y.—The council has approved an issue of \$2,000,000 in bonds for repaving for next year, of this sum \$700,000 will be used in the Borough of Brooklyn and \$75,000 in the Borough of Queens.

BAYONNE, N. J.—This city is said to have sold \$50,000 in bonds, part of which will be used for road improvements.

PHILADELPHIA, PA.—The board of surveyors has approved the revision of street lines adjacent to and for the arrangement of filtration beds in the 38th Ward at Queen Lane, in the 1st Ward at Torresdale St., in the 21st Ward at Roxborough St. and in the 24th Ward at Belmont St. The board also recommended the revision of lines and grades so that Ogontz Ave. might be laid out 120 ft. wide from Ruscomb St. to the Montgomery county line. It was agreed to recommend the placing on the city plan of Boudinot St. from Clearfield St. to Allegheny Ave.

RALEIGH, N. C.—The board of aldermen is said to have decided to petition the legislature for permission to issue \$100,000 in bonds for street improvements.

MOBILE, ALA.—D. W. M. Ross, Cy. Engr., writes us that a bill is now before the legislature asking for permission to issue bonds for street improvements.

FRANKLIN, LA.—This place has sold \$20,000 in bonds for street improvements.

LOUISVILLE, KY.—Bids are asked, according to reports, by the board of public works until Jan. 2, for paving the following streets with brick, to cost about \$65,000: Burnett Ave., 27th, 28th, K, Bergman, Branders and Barbee Sts.

CINCINNATI, O.—Bids are asked until Dec. 31 for the purchase of \$100,000 in bonds for street improvements, according to reports. Paul M. Milliken, Cy. Auditor.

CLEVELAND, O.—The council is said to have decided to pave and improve Martin, Lucia, Fairmount, Hamilton, Cutler, Erie and Pratt Sts., and Woodland Hills Ave., and Warner Road.—The council has received the following bids for street work, for paving Case Ave. with common stone: Brennan & Buettner, \$11,124; Northern Ohio Paving & Construction Co., \$11,387; M. F. Bramley & Co., \$11,622; F. E. Burgess, \$12,884; General Construction Co., informal; Campbell Bros., informal; for paving Berg St. with common stone: Northern Ohio Paving & Construction Co., \$5,727; M. F. Bramley & Co., \$5,753; Brennan & Buettner, \$5,984; F. E. Burgess, \$6,450; Campbell Bros., \$6,634; General Construction Co., informal; for paving Stone's levee with common stone: Northern Ohio Paving & Construction Co., \$6,865; M. F. Bramley & Co., \$6,912; Brennan & Buettner, \$7,434; Campbell Bros., \$8,073; General Construction Co., informal; for paving Minkon St. with brick: Northern Ohio Paving & Construction Co., \$4,521; M. F. Bramley & Co., \$4,586; Campbell Bros., \$4,641; F. E. Burgess, \$4,752; Roehl Bros., \$4,809; Brennan & Buettner, \$4,859; General Construction Co., informal; for paving East River St. with block stone: The Northern Ohio Paving & Construction Co., \$3,358; M. F. Bramley & Co., \$3,467; Brennan & Buettner, \$3,428; Campbell Bros., \$3,036; for paving Hamilton St. with block stone: Brennan & Buettner, \$7,895; M. F. Bramley & Co., \$8,139; Northern Ohio Paving & Construction Co., \$8,206; F. E. Burgess, \$8,381; Campbell Bros., \$9,255; for paving Merwin St. with block stone: Northern Ohio Paving & Construction Co., \$14,259; M. F. Bramley & Co., \$14,325; Campbell Bros., \$15,786; for paving Seneca St. with block stone: Northern Ohio Paving & Construction Co., \$8,697; M. E. Kavanagh, \$8,854; F. E. Burgess, \$9,193; M. F. Bramley & Co., \$9,531; Brennan & Buettner, \$9,728; Campbell Bros., \$10,258; for paving Superior St. viaduct with block stone: Northern Ohio Paving & Construction Co., \$3,102; M. F. Bramley & Co., \$3,272; Campbell Bros., \$3,414; William E. Sage, Secy. Bd. Control.

EAST LIVERPOOL, O.—The council is said to have passed a resolution providing for the paving of Pennsylvania Ave. with brick.

TOLEDO, O.—Willis F. Brown, Cy. Engr., informs us that as yet no legislation has been introduced concerning the extension of Summit St.

BAY CITY, MICH.—The special committee on street improvements is said to be considering plans for street improvements for next year.

SAGINAW, MICH.—We are informed that the city engineer has been directed to prepare plans and specifications for paving Washington Ave., from the Pierre Marquette tracks to Randolph St., with brick; Perry St., with cedar blocks, and Michigan Ave. with asphalt. H. E. Terry, Cy. Engr.

RACINE, WIS.—We are informed that plans have been adopted for constructing about 122,500 sq. yds. of brick and macadam paving, to cost about \$180,330 on Washington and Milwaukee Aves., and North Main, High, Wisconsin, Sixth, Seventh, 10th, Mead and Water Sts. Bonds to the amount of \$50,000 will be issued to pay the city's portion of the work. Bids will be asked as soon as bonds are sold. P. H. Connolly, Cy. Engr.

CEPAD RAPIDS, IA.—We are informed that plans and specifications have been prepared by the city engineer for paving Fifth Ave. and Division St. with asphalt, to cost about \$20,000. The work will be paid for by a special assessment. G. H. Meredith, Cy. Engr.

ST. PAUL, MINN.—The board of public works has plans and specifications for paving Wabasha St., with Kettle River sandstone, to cost about \$32,000.

SEATTLE, WASH.—Bids are asked until Dec. 29 for constructing cement sidewalks on Broadway, to cost about \$22,200. R. H. Thompson, Cy. Engr.; A. H. Dimock, Asst. Engr.—We are informed that the council now has under consideration the improvement of Madison St.; a

portion will be paved with brick with cement sidewalks, to cost about \$25,000, the remainder will be planked, to cost about \$23,050. Cement sidewalks will probably be ordered on 16th, 17th and 18th Sts., to cost about \$38,700.

OAKLAND, CAL.—The council has adopted a resolution ordering the grading and macadamizing of Newton Ave.

SAN FRANCISCO, CAL.—The board of public works is said to have requested that Clay, Sacramento and Washington Sts. be paved with asphalt or bituminous rock. J. A. Russell, Cy. Clk.

MANILA, P. I.—The Philippine Commission has passed a bill appropriating \$75,000 for the immediate construction of a highway from Pozorublo, Province of Pangasinan to Bagulo, Province of Benguet, along the line surveyed for a government railroad.

MANUFACTURING PLANTS.

WALTHAM, MASS.—It is stated that the Stanton Mfg. Co., of Waltham, will improve the plant of the New England Motor Carriage.

BRIDGEPORT, CONN.—The E. S. Hotchkiss Hardware Co.'s buildings were destroyed by fire on Dec. 22. The loss is reported at about \$80,000.

JERSEY CITY, N. J.—It is stated that some of the stockholders of the Standard Oil Co. have organized to build a glucose factory at ShadySide. The company will soon be incorporated with \$3,000,000 capital stock. The buildings will cover nearly a third of a mile of water front. There will be two factory buildings, with a capacity of 20,000 bushels of corn a day. The company will also build docks for the shipment of its products. About 600 hands will be employed at first. Contracts are reported to have been given out. H. H. Rogers, E. T. Bedford and C. M. Pratt are interested.

CARNEGIE, PA.—The plow works of the A. T. Stewart Co. were destroyed by fire on Dec. 15. The loss is about \$75,000.

CARROLLTON, GA.—The Free State Fertilizer Works has been organized with \$25,000 capital stock, and will build a plant in this place at once. E. G. Kramer, Pres. and Treas., and L. C. Mandeville, Vice-Pres.

ALEXANDER CITY, ALA.—The contract for the erection of a cotton mill in this city has been let to Miles & Bratt, contractors, Atlanta, Ga. The price is \$50,000. Work will begin after Jan. 1, and is to be finished in 150 days. The name of the new concern will be the Alexander Cotton Mill Co. The plant will have 10,000 spindles and the capacity may be doubled next year. The plans and specifications were drawn by Lockwood & Green, Boston, Mass.

BIRMINGHAM, ALA.—The Southern Car & Foundry Co. has had a proposition to build one of its plants in this city. It is said that the plant will be built next year if the proposition is accepted.

HUNTSVILLE, ALA.—Reports state that a new cotton mill is to be built in this city, to cost about \$200,000. Chas. Shaver, representing eastern capitalists, has arrived in the city for the purpose of selecting a site.

AKRON, O.—The H. B. Camp Co. has plans for its new cement factory, which will cost about \$30,000.

AKRON, O.—We are informed that the Akron Engineering Co. will need cranes and general foundry equipment for its new plant in this place. The contract for the buildings was let Dec. 17 to Carmichael & Co., Akron; estimated cost, \$10,000. Chas. Henry & Co., Archs.; J. F. Winchell, Vice-Pres. and Gen. Mgr., Springfield.

CANTON, O.—Chas. R. Miller, Pres. Bd. Trade, is reported as stating that the board of trade has accepted the proposition of building a new steel plant in this city.

CANTON, O.—It is stated that the Canton-Cleveland Brick Co. will rebuild its plant, increasing the capacity.

CLEVELAND, O.—The plant of the Brown Hoist & Machinery Co. was destroyed by fire on Dec. 17. The loss is reported at \$350,000. It is stated that plans have already been started for a new works to replace those destroyed. F. G. Tailman, Mgr.

EAST PALESTINE, O.—The decorating department of the Ohio Glass Co.'s pottery was recently burned at a loss of about \$20,000. The building and six new kilns will be rebuilt.

PORTSMOUTH, O.—A new steel plant is proposed for this place by prominent capitalists.

Bids Received at New London, Conn., Dec. 17, 1900, for Metal Doors and Frames.

| Bidder. | Class and No. of Doors. | | | | | Total: |
|--|-------------------------|---------|----------|----------|---------|------------|
| | "C," 8. | "B," 8. | "A," 5. | "D," 4. | "E," 1. | |
| Greenlee, Wyatt & Co., New York, N. Y. | \$83.00 | \$97.00 | \$107.00 | \$156.00 | \$98.00 | \$2,697.00 |
| New Jersey Foundry & Machine Co., New York. | 94.00 | 110.00 | 110.00 | 114.00 | 94.20 | 2,740.40 |
| J. L. Mott Iron Works, New York, N. Y. | 221.25 | 240.00 | 255.00 | 312.50 | 233.75 | 6,448.75 |
| Wilson's Iron & Wire Works, Milwaukee, Wis. | 82.94 | 89.27 | 113.34 | 153.67 | 175.29 | 2,734.25 |
| Buider's Iron Foundry, Providence, R. I. | 95.00 | 95.00 | 110.00 | 115.00 | 120.00 | 2,650.00 |
| Exeter Machine Works, Pittsford, Pa. | 85.00 | 124.00 | 126.00 | 129.00 | 108.00 | 3,066.00 |
| Wing Foundry & Machine Co., Philadelphia, Pa. | 120.00 | 145.00 | 145.00 | 180.00 | 175.00 | 3,740.00 |
| West Side Foundry Co., Troy, N. Y. | 110.00 | 130.00 | 140.00 | 170.00 | 145.00 | 3,445.00 |
| Merker & Bros., St. Louis, Mo. | 102.25 | 115.00 | 120.00 | 156.50 | 120.00 | 3,084.00 |
| North Penn Iron Co., Philadelphia, Pa. | 120.17 | 151.61 | 152.89 | 197.43 | 157.90 | 3,886.31 |
| The Sneed & Co. Iron Works, Jersey City, N. J. | 102.00 | 115.00 | 118.00 | 149.00 | 129.00 | 3,051.00 |
| Riverside Steam Boiler Works, Willimansett, Mass. | 160.00 | 180.00 | 155.00 | 275.00 | 190.00 | 4,785.00 |
| Standard Supply & Equipment Co., Philadelphia, Pa. | 160.78 | 187.03 | 189.00 | 216.56 | 210.00 | 4,803.72 |
| Van Dorn Iron Works Co., Cleveland, O. | 148.00 | 173.00 | 174.00 | 213.00 | 165.00 | 4,455.00 |
| R. S. Bishop, New York, N. Y. | 99.00 | 139.35 | 149.50 | 176.50 | 110.00 | 3,470.30 |
| Ellicott Machine Co., Baltimore, Md. | 157.00 | 186.00 | 190.00 | 205.00 | 186.00 | 4,700.00 |

MIDDLETOWN, O.—It is stated that the plant of the Ohio Box & Mfg. Co. recently destroyed by fire, loss \$50,000, will be rebuilt.

YOUNGSTOWN, O.—Reports state that bids are now being received by the Youngstown Iron & Sheet Roofing Co. for a new sheet mill to be erected in Hazelton.

BAY CITY, MICH.—Local papers state that W. R. Loranger, Bay City, and Julius Stroh, Detroit, are behind a scheme to locate a factory in Bay county for the manufacture of Portland cement. The plant will have a capacity of 500 barrels a day. Plans for the buildings are being prepared. A company will soon be organized and the operations will then begin.

CHICAGO, ILL.—A permit has been issued to the W. W. Kimball Co. by the building department for a five-story brick addition to their piano factory, at 26th and Rockwell Sts. The addition will cost \$75,000.

PHOENIX, ARIZ.—The following bids were received by S. M. McCowan, Supt., Indian School, on Dec. 14 for erecting an ice plant at the Indian school: El Paso Mine, Mill & Smelter Supply House, El Paso, Tex., \$3,650 (accepted); A. H. Barber Co., 229 South Water St., Chicago, Ill., \$4,250; Cyclops Iron Works, 223 Main St., San Francisco, Cal., \$4,800; Vulcan Iron Works, 505 Mission St., San Francisco, Cal., \$5,800; Meese & Gottfried Co., 167 Tremont St., San Francisco, Cal., \$5,975; Oakland Iron Works, San Francisco, Cal., \$6,100.

JEFFERSON CITY, MO.—The Peter Schoenhofer Brewing Co., of Chicago, has been incorporated with \$1,000,000 capital stock. The company will carry on operations in St. Joseph.

ST. LOUIS, MO.—A. B. Hazzard, Vice-Pres., Compliment Wood Stock & Mfg. Co., writes us that the company expects to erect six plants in localities where certain species of hickory can be secured. Each plant will employ from 20 to 60 hands.

NORTH YAKIMA, WASH.—Arrangements are reported to have been perfected by Dr. P. Frank, of the Yakima Commercial Club, for the location of a brewing plant, ice factory and bottling works in this city, to represent an expenditure of \$50,000.

SAN MATEO, LUZON, P. I.—Catalogues are wanted, with prices and discounts, from manufacturers of improved brick-making machinery for filing. Address Capt. Eastman G. Curry, 27th U. S. Infantry.

PETERBORO, ONT.—It is reported that the American Cereal Co. will establish a branch factory in this place, to employ about 600 hands. The company has an option on lands, and will expend about \$250,000 on the new plant.

GAS PLANTS.

LOWELL, MASS.—We are informed that the Lowell Gas Light Co. has let the contract for erecting a 3,000,000 cu. ft., 4-lift steel tank holder on School St., to cost about \$2,500,000, to the Ritter-Conley Mfg. Co., Pittsburg, Pa. H. A. Carpenter, Engr., care of the Ritter-Conley Mfg. Co.; George W. Farnham, Supt.

HIGH BRIDGE, N. J.—The people of this town are said to be considering the question of erecting a plant.

MILLVILLE, N. J.—It is stated that the Millville Gas Co. will erect an extension to its plant next spring.

RICHMOND, VA.—A gas plant will be installed in the Methodist Orphanage here, according to reports.

ELON COLLEGE, N. C.—S. M. Smith will, it is said, receive bids for installing an acetylene gas plant for the college building here.

YOUNGSTOWN, O.—The Youngstown Consolidated Gas & Electric Lighting Co. will, it is said, soon start work on improving and extending its plants.

RICHMOND, IND.—The gas plant of the Richmond Light, Heat & Power Co. is said to have been recently destroyed by fire; loss about \$10,000. Dr. J. E. Lowes, Pres.; J. W. Roney, Secy.

LA GRANGE, ILL.—The contract for erecting a plant here for Col. I. C. Copley, of Aurora; Roy Strohm, and others, is said to have been let to E. D. Briggs, of Aurora.

MILWAUKEE, WIS.—Press reports state that the Milwaukee Gas Light Co. will erect a new plant next spring, at 24th St. and Paul Ave., to cost about \$1,500,000. E. G. Cowdrey, Mgr.

PALMYRA, WIS.—The acetylene plant of the Palmyra Gas Co. was recently destroyed by fire.

BURLINGTON, IA.—Henry E. Hanhold, Deputy Cy. Clk., writes us that the question of replacing the arc lights with Weisbach is being considered.

OMAHA, NEB.—The council is said to have passed ordinances providing for the laying of new gas mains in several streets.

CONTRACT PRICES.

HEADWORKS.—Los Angeles, Cal.—The following bids were received Dec. 17, 1900, for constructing the headworks for the proposed municipal water-works: (1) dry tunnel, 800 lin. ft.; (2) wet tunnel, 500 lin. ft.; (3) dry gallery, 400 lin. ft.; (4) wet gallery, 500 lin. ft.; (5) trenching, 300 lin. ft.; price given is per ft.; F. H. Olmstead, Cy. Engr.:

| | 1. | 2. | 3. | 4. | 5. | Total. |
|-------------------|---------|---------|---------|---------|---------|---------|
| Ramish & Marsh | \$18.00 | \$26.00 | \$12.00 | \$18.00 | \$22.50 | \$59.00 |
| R. Beyrlé (acptd) | 16.00 | 30.00 | 12.00 | 15.00 | 17.50 | 55,550 |
| French & Reed | 18.50 | 23.00 | 15.00 | 19.00 | 25.00 | 64,300 |
| C. E. Groat | 16.00 | 31.00 | 12.00 | 16.00 | 19.00 | 64,000 |
| J. M. Gardiner | 18.01 | 22.00 | 13.95 | 17.95 | 23.75 | 66,700 |
| H. C. Register | 15.46 | 19.70 | 12.00 | 12.00 | 20.50 | 61,650 |

METAL DOORS.—New London, Conn.—The following bids were received by Maj. Smith S. Leach, U. S. Engr., New London, Dec. 17, 1900, for furnishing metal doors and frames, the bids being per unit; contract awarded the Builders' Iron Foundry, Providence, R. I.:

| Items. | Class and No. of Doors. | | | | | Total: |
|-------------------------|-------------------------|---------|---------|---------|---------|-----------------|
| | "C," 8. | "B," 8. | "A," 5. | "D," 4. | "E," 1. | |
| Boilers, supports, etc. | 15,797 | | | | | \$14,119 |
| With Brightman stokers | 4,685 | | | | | 8,031 |
| With Roney stokers | 4,367 | | | | | 7,380 |
| " American " | 4,500 | | | | | 7,380 |
| " Hawley down-draft " | | | | | | 3,200 |
| Total | \$20,297 | | | | | \$22,150 |

BOILERS AND STOKERS.—Cleveland, O.—The following bids were received Dec. 15, 1900, for furnishing water-tube boilers and stokers: W. P. Rice, Dir. Dept. Pub. Wks.; M. W. Kingsley, Supt. Water-wks.:

| Items. | Sterling Co. | Cleveland Steam Boiler Works. | Campbell & Zell. |
|-------------------------|-----------------|-------------------------------|------------------|
| Boilers, supports, etc. | \$15,797 | \$14,119 | \$14,157 |
| With Brightman stokers | 4,685 | 8,031 | 8,581 |
| With Roney stokers | 4,367 | 7,380 | 3,851 |
| " American " | 4,500 | 7,380 | 3,400 |
| " Hawley down-draft " | | | 3,200 |
| Total | \$20,297 | \$22,150 | \$17,957 |

*Informal. Weights: 23,000 lbs., 20,000 lbs., not given, 40,000 lbs., 19,000 lbs.

ELECTRIC LIGHTING.—Philadelphia, Pa.—The Brush Electric Light Co. has been awarded the contract for lighting the entire city for 1901 at 28 cts. per light on city cables, 30 cts. per light on overhead city cables south of Allegheny Ave., 31 cts. per light, overhead city cables, north of Allegheny Ave., and 32 cts. per light on the cables of the company, The Kensington Electric Light Co., the only other bidder, submitted a bid for a small section of the city at 20 cts. per lamp per night.

ASPHALT PAVING.—Fort Wayne, Ind.—The following bids were received by the board of public works, Dec. 6, 1900, for asphalt paving in East Main St., Barber Asphalt Paving Co., section from Barr to Lafayette, paving, \$2.40; excavation, 25 cts. per cu. yd.; new curbing, 45 cts. per lin. ft.; resetting old curbing, 15 cts. per lin. ft.; oak heading plank, 10 cts. per ft.; corners, \$3.50. From Lafayette to Clay, paving, \$10.31 per lin. ft.; curbing, 45 cts. The Bermudez Asphalt Paving Co., Barr to Lafayette, paving, \$2.47; excavation, 25 cts.; resetting old curbing, 18 cts.; heading plank, 12 cts.; corners, \$2. Lafayette to Clay, paving, \$10.57 a lin. ft.; curbing, 45 cts.

SEWERS.—New York, N. Y.—The following bids were received by the sewer department, Park Row Bldg., Manhattan, Dec. 19, for constructing sewers in sections of the Kingsbridge Road, Terrace View Ave. and Kingsbridge Ave., Borough of the Bronx; all local bidders:

Table titled 'Bids Received at New York, N. Y., Dec. 19, 1900, for the Construction of Several Sewers'. Columns include Bidder, Sewers (36-in., 42x28, 12-in.), Pipe, Receiving basins, Rock excavation, and Total.

BRICK PAVING.—New Haven, Conn.—The Abbott-Gamble Contracting Co., Times Bldg., New York, has been awarded the contract at \$2.27 a sq. yd. for paving Chapel St., from State to York Sts., with New York and Pennsylvania brick, employing New Haven labor, and the work to be completed in seven weeks.

ELECTRIC LIGHTING.—Narberth, Pa.—The contract for electric lighting for 1901 has been let to the Bala & Merion Electric Light Co., Philadelphia, at \$15 a light of 16 c.p. a year. F. H. Harges, Chm. Highway Com.

STREET CLEANING.—Indianapolis, Ind.—The following bids for sweeping and cleaning the streets were received by the board of public works, Dec. 19, 1900: Chas. H. Stuckinger, Indianapolis (accepted), 18 1/2 cts. per 10,000 sq. ft., each time; Capital Sweeping Co., Buffalo, N. Y., 20 cts.; A. F. Shaver, Indianapolis, 22 cts.; allowance for manual labor under specifications: Labor, \$1.35 a day; horse, cart and driver, \$2.50 a day; team and driver, \$3 a day; team with scraper, \$4 a day; 4-horse team, with scraper, \$6 a day. The contractor is to sweep and keep clean the roadways from curb to curb, and remove the sweepings for 18 1/2 cts. per 10,000 sq. ft. Manual labor is for removing droppings, etc., during daytime after night sweeping.

SEWERS.—Warsaw, Ind.—The following bids were received Dec. 18, for constructing sewers, and contract let to E. Woods, Decatur, Ind., at \$18.99, \$670 being added as an estimate for lifting machinery: Frank T. Oakley, Consult. Engr., Toledo, O.; W. Y. Chamberlain, Cy. Engr.:

Table titled 'Bids Received at Warsaw, Ind., Dec. 18, 1900, for Constructing Sewers'. Columns include Quantities, Tbos. Peters, Chicago, John Palmer, Danville, Ill., James Roche, James E. Woods, James H. Healey, Hardington, Joseph Derheimer, Port Wayne, Ind., Nash Bros., Chicago.

WATER AND SEWER PIPE.—Providence, R. I.—The following bids were received by Robt. E. Smith, Dir. Pub. Wks., Dec. 13, 1900, for furnishing cast iron water pipe; 8-4 tons, of 2 1/2 lbs., of 4-in. B pipe; 448.66 tons of 6-in. pipe, and 79.02 tons of 8-in. pipe, total 527.68 long tons; Camden, Iron Works, Camden, N. J., \$24.71 a ton; total, \$13,255; to be delivered in 30 days; Warren Foundry & Machine Co., New York, \$24.30 a ton; total, \$13,035; 30 days (accepted); U. S. Cast Iron Pipe & Foundry Co., Chicago and Philadelphia, 4-in. pipe, \$25.80 a ton; 6 and 8-in. pipe, \$24.90 a ton; total, \$13,365; days, 45. The following are the prices received Dec. 17 for furnishing sewer pipe. List prices: 1,800 ft. 15-in. straight pipe, \$1.25; 100 pieces, 15x6 branches, \$6.88; 9,900 ft. 12-in. straight pipe, \$8 cts.; 5 pieces 12x12 branches, \$4.68; 60 pieces 12x8 branches, \$4.68; 600 pieces 12x6 branches, \$4.68; 10,000 ft. 8-in. straight pipe, 2 ft. each, 45 cts.; 30 pieces 8x8 branches, 2 ft. each, \$2.03; 400 pieces 8x6 branches, 2 ft. each, \$2.03; 9,000 ft. 6-in. straight pipe, 2 ft. each, 30 cts.; 30 pieces 15-in. bends, \$4.75; 90 pieces 12-in. 1/4 bends, \$3.50; 125 pieces 8-in. 1/4 bends, \$1.80; 750 pieces 6-in. 1/4 bends, \$1.10; 250 pieces 6-in. bevel connections, 90 cts., 24 ins. long, each. Total, \$24,270.00 Portland Stone Ware Co. 67% discount on 3 ft. lengths, 70% discount on 2 ft. lengths and 2% off net. If paid before the 15th of the month. W. A. H. Grant, 27 Mantion Ave., 78% discount on 3-ft. lengths, 79% discount on 2 ft. lengths. Standard Fire Proofing Co. 78% discount and 2% off net if paid before 15th of month, Charles M. Kelly 77% discount, Edwin D. Allen 77% discount.

discount. Proposal of W. A. H. Grant accepted; total, \$5,181. 80 flagstones 5 x 5 ft. x 4 in.; Edwin D. Allen at \$6.40 each, Chas. M. Kelly at \$6.35 each. Proposal of Chas. M. Kelly accepted; total, \$508.

MISCELLANEOUS CONTRACTS.

ARMY WAGONS.—Jeffersonville, Ind.—Bids are asked until Jan. 7 for furnishing 200 army escort wagons. C. R. Barnett, Deputy Q. M. Gen.

FIRE HOSE.—Los Angeles, Cal.—Bids are asked until Jan. 14 for furnishing 4,000 ft. of 2 1/2-in. and 1,000 3-in. cotton rubber-lined fire hose. C. H. Hauze, Cy. Clk.

AERIAL TELEGRAPH CABLE.—Washington, D. C.—Bids are asked by the signal office, War Department, until Dec. 26 for furnishing 3,000 ft. 50-mile cable, one mile 20-pair cable, and four miles of 10-pair cable. A. W. Greeley, Chief Signal Officer.

Table titled 'Bids Received at New York, N. Y., Dec. 19, 1900, for the Construction of Several Sewers'. Columns include Bidder, Sewers (36-in., 42x28, 12-in.), Pipe, Receiving basins, Rock excavation, and Total.

VAULT.—Washington, D. C.—Bids are asked until Jan. 17 for constructing a new vault in the register's office in the treasury building. Jas. K. Taylor, Supv. Arch., Treasury Dept.

CEMENT.—Cincinnati, O.—Bids are asked until Jan. 21 for furnishing a quantity of Portland and natural cement, as stated in our advertising columns. Capt. H. F. Hodges, U. S. Engr.

REGULATING APPARATUS.—St. Paul, Minn.—Bids are asked until Jan. 10 for installing an automatic temperature apparatus in the new U. S. building here. Jas. K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C.

BRICK, FIRE CLAY, ETC.—Brooklyn, N. Y.—Bids are asked by the department of water supply, 21 Park Row, New York, until Jan. 10 for furnishing a quantity of brick, fire clay, asbestos, cement, well points, shovels, boiler tubes, fire-hydrant caps, nozzles, etc.

LIGHTHOUSE, ETC.—Charleston, S. C.—Bids are asked until Jan. 29 for erecting a light tower, three keeper's dwellings, an oil house, two storehouses, a wharf and tramway fences and plank walks for Cape Fear Light Station, N. C., as stated in our advertising columns. Capt. J. C. Sanford, U. S. Engr.

STATE CANAL WORK.—Albany, N. Y.—The following contracts have been let by John N. Partridge, Supt. Pub. Wks., for state canal work: For rebuilding north pier and placing a concrete cutoff back of north abutment of Wellsbrook Aqueduct on the Black River Canal in West-ern, Oneida to Wilkes D. Dodge, Boonville, at \$2,413; for

breakwater, (1) \$44,000; New London, (1) \$25,000, (2) \$20,000; New York, Buffalo, (1) \$30,000; Oswego, (1) \$48,000; New York Harbor, (1) \$37,500; Tonawanda Har- bor and Niagara River, (1) \$257,700; Buttermilk Channel, (1) \$300,000, (2) \$1,500,000; Buffalo, at Erie Basin and Black Rock Harbor, (1) \$200,000, (2) \$614,643; Cape Vincent, (1) \$48,000; Dunkirk, (1) \$84,827; New Jersey.—Raritan Bay, (1) \$45,000; Kill von Kull and Arthur Kill, (1) \$100,000, (2) \$596,000. Pennsylvania.—Erie, (1) \$125,000. Maryland.—Spring Garden, Southwest Baltimore, (1) \$88,000, (2) \$221,000. Virginia.—Norfolk Harbor, (1) \$20,000; Norfolk, removal of Hospital Point, (1) \$10,000, (2) \$183,957; Middle Ground Bar, Newport News, (1) \$100,000, (2) \$215,000. South Carolina.—Charleston, (1) \$90,000; Georgia.—Brunswick, (1) \$125,700; Savannah, (1) \$50,000; Savannah, new project, (1) \$100,000; Brunswick, outer bar, (1) \$25,000. Florida.—Apalachicola Bay, (1) \$41,000; Pensacola, (1) \$70,000; Key West, improving entrance to harbor, (1) \$25,000; Hillsborough Bay, (1) \$150,000. Alabama.—Mobile, (1) \$100,000. Louisiana.—Southwest Pass, Mississippi River, (1) \$750,000, (2) \$2,950,000. Texas.—Galveston Harbor, (1) \$600,000, (2) \$1,000,000; Sabine Pass, (1) \$100,000; Aransas Pass, (1) \$350,000. Ohio.—Cleveland, (1) \$600,000, (2) \$2,200,000; Cleveland Harbor dredging, (1) \$125,000; Conneaut, (1) \$75,000, (2) \$342,000. Illinois.—Waukegan, (1) \$100,000, (2) \$245,000. Minnesota.—Bur- lington Bay, (1) \$200,000, (2) \$235,000. California.—San Diego, (1) \$50,000, (2) \$217,850. Rivers: Maine.—Lubec Channel, (1) \$25,000. New Hampshire.—Cochecho River, (1) \$30,000. Massachusetts.—Mystic River, below the mouth of Island end of river, (1) \$50,000; Merrimack River, (1) \$30,000; survey of Connecticut River, (1) \$25,000. Rhode Island.—Pawtucket River, (1) \$28,500. Providence River and Narragansett Bay, (1) \$75,000. New York.—Hudson River, (1) \$200,000; Harlem River, (1) \$100,000; East River and Hell Gate, (1) \$200,000; Grasse River, (1) \$75,000. New Jersey.—Passaic River, (1) \$75,000; Raritan River, (1) \$25,000; Mantua Creek, (1) \$25,000. Pennsylvania.—Delaware River, New Jersey and Pennsylvania, (1) \$600,000, (2) \$2,400,000; Monongahela River, (1) \$200,000, (2) \$435,315. Washington, D. C.—Potomac River, (1) \$75,000; Virginia.—James River, (1) \$250,000; Rappahan- nock River, (1) \$25,000. North Carolina.—Cape Fear River at or below Wilmington, (1) \$140,000; Piedmont and Tar Rivers, (1) \$25,000. South Carolina.—Ashley River, (1) \$25,000. Georgia.—Chattahoochee River, Georgia and Alabama, below Columbus, (1) \$85,000; Flint River, (1) \$25,000; Coosa River between Rome and Railroad Bridge, (1) \$70,000, (2) \$174,845. Florida.—St. John's River, from Jacksonville to the ocean, (1) \$35,000, (2) \$950,000; St. John's River at Orange Mills flats, (1) \$25,000. Alabama.—Warrior River, (1) \$350,000, (2) \$400,000. Texas.—Trinity River, (1) \$150,000, (2) \$600,000; Galveston ship canal and Buffalo Bayou, (1) \$310,000, (2) \$300,000. Tennessee.—Cumberland River above Nashville, (1) \$105,000; Cumberland River below Nashville, (1) \$180,000. Kentucky.—Licking River, (1) \$100,000, (2) \$207,000. Ohio.—Ohio River, (1) \$400,000; dam at Cullom's Ripple, (1) \$100,000, (2) \$950,000; locks No. 8, 11 and 14, (1) \$150,000, (2) \$750,000. Michigan.—Detroit River, (1) \$500,000, (2) \$1,250,000. St. Clair flats canal, (1) \$350,000; West of Neeshik, (1) \$500,000, (2) \$4,000,000. Illinois.—Survey of deep waterway, (1) \$200,000. Mississippi River.—Reser- voirs at head waters, (1) \$200,000; river from the head of the passes to mouth of Ohio River, (1) \$2,500,000, (2) \$3,000,000; harbor at New Orleans, (1) \$110,000; between Missouri River and St. Paul, (1) \$1,300,000, (2) \$2,500,000. Missouri River.—General improvement between Sioux City and the mouth, (1) \$300,000. Oregon.—Mouth of Columbia River, (1) \$40,000, (2) \$1,500,000; Lower Willa- mette and Columbia Rivers below Portland, (1) \$255,000; examinations, surveys, contingencies of rivers and har- bors, inspection of bridges, etc., (1) \$200,000. This statement only includes the appropriations of over \$25,000 in the eastern and the largest western states, and does not cover in detail the surveys to be authorized and general provisions of legislation, as these features are not yet completed. The appropriations made for Sandy Bay, Cape Ann, harbor of refuge and Galveston Ship Canal and Buf- falo Bayou are not to be expended unless the projects receive the approval of a board of engineers to be appointed to examine and report on them.

FOREIGN CONTRACTS AND EXPORT NEWS

ELECTRIC PLANT, TRAMWAY, ETC.—Brive, France.—The municipal council will probably let contracts in May for building an electric power plant, tramways, etc.

PORT WORKS.—Recife (Pernambuco), Brazil.—Bids are asked by the Office of the Industrial Works, Rio de Janeiro, until Feb. 28, for constructing port works, including cranes, quays, buildings, railway, etc.

ELECTRIC CRANES.—Manchester, Eng.—Bids are asked by the Manchester Ship Canal Warehousing Co., Manchester, until Jan. 4 for furnishing and erecting 22 electric jib cranes, according to reports.

WHARF.—West Africa.—Shelford & Son, Consult. Engrs. for the West African Colonies, 35a Great George St., Westminster, London, S. W., are about to make sur- vey for extensions to a wharf on the West Coast of Africa.

RAILWAYS.—Belgium.—Bids are asked until Jan. 22 by the Societe-Nationale des C. de Vincennes, 14 rue de la Science, Brussels, for building a line from Tilly to Chastre, to cost about \$55,000. The Societe has a concession for the Ittegan-Sauthoven Ry.

DREDGE, ETC.—Santander, Spain.—Bids are asked at the Corporation Offices, Santander, until March 11 for furnishing a floating dredge on the suction principle, to cost about \$127,000.—The government has authorized the enlargement of the ordnance factory at the Carraca Arsenal.

WATER PIPE, VALVES, ETC.—Rangoon, India.—Bids are asked by Ogilvy, Gillanders & Co., 67 Cornhill, London, E. C., until the arrival of the mail leaving London Jan. 18 for furnishing over 2,000 tons of cast-iron water pipe, castings, valves, etc., and not until Dec. 27, as noted last week.

TRAMWAY AND CANAL.—Piacenza, Italy.—A. J. Law- son, of London, Eng., and Ingegnere Torquato Perloni, of Ponte dell'Olto, Italy have applied for concessions for an electric tramway from San Nicolo to Azzano, and for a power canal from the Trebbia for furnishing power for tramways and lighting plants.

RAILWAY.—India.—Surveys for completing construction of the Kalka-Simla Ry. will soon be completed, and work will be commenced in February. Tunnels will be built between Bentinek Hill and Summer Hill, and near Gorton Castle. The road will be 2-ft. gauge and 62 miles long. Duff, Bruce & Co., Consult. Engrs., 17 Victoria St., West- minister, London, S. W.; H. S. Harrington, Ch. Engr., Simla, India.

RAILWAY.—Nicaragua.—Press reports state that the American consul, at Greytown, Nicaragua, representing an English syndicate, has offered to purchase the national railways and the river steamers for \$7,500,000. The govern- ment has not decided yet on its answer to the offer.

rebuilding Pitcher's waste weir and spillway on the For- estport feeder on the Black River Canal in Boonville, to Wilkes D. Dodge, at \$1,312, and for rebuilding Searle's waste weir No. 9 on the Champlain Canal, north of Wil- bur's Basin Road Bridge, Saratoga county, to Higley & Barber, \$9,831.

NAVAL SUPPLIES.—Washington, D. C.—Bids are asked until Jan. 2 for furnishing a quantity of electrical supplies, Birch, hardware, sheet steel, etc., at the navy yard, Mare Island, Cal., and a quantity of steel-rod rivet, hard- ware, wrought iron, steel, pipe, fittings, etc., at the naval station, Puget Sound, Wash. A. S. Kenny, Paymaster Gen., U. S. N.

RIVER AND HARBOR BILL.—Washington, D. C.—The river and harbor bill has been completed and Chairman Burton has made a statement showing the amounts ap- propriated, (1) being for direct appropriations, which amount to about \$23,000,000, and (2) is the authorization for contracts for continuous work, amounting to about \$37,000,000. Harbors: Maine.—Carver's Harbor, Vinal Har- bor, (1) \$39,000; Isle of Shoals, (1) \$30,000. Vermont.—Bur- lington Harbor, (1) \$25,000. Massachusetts.—Boston Har- bor, new project, (1) \$600,000, (2) \$3,000,000; Boston Har- bor, general improvement, (1) \$163,000; Nantucket harbor of refuge, (1) \$30,000; Newburyport, (1) \$30,000; Sandy Bay, Cape Ann, harbor of refuge, (1) \$200,000; Gloucester, (1) \$100,000, (2) \$202,083; New Bedford, (1) \$37,700; Fall River, (1) \$38,000, (2) \$117,411; Lynn, (1) \$25,000. Rhode Island.—Newport, (1) \$39,200. Connecticut.—New Haven,

It is awaiting a letter giving full details of the proposal. Further notes regarding railways in Nicaragua may be found in our issues of Nov. 15 and Dec. 20.

REMOVING WRECK.—Havana, Cuba.—Reports state that the following propositions were submitted to the captain of the port, Havana, Dec. 15, for raising the wreck of the battleship "Maine," lying in Havana Harbor: John T. Cavanagh, Boston, Mass., raise and deliver to U. S. government, \$735,000; Frank Pidgeon, Madison Ave. and 42d St., New York, \$639,000; Schwartz Foundry Co., New York, \$80,000. There were five bids, the others being informal.

HOSPITAL BUILDINGS.—Glasgow, Scotland.—We are informed that the plans of Thomson & Sandilands, 241 West George St., Glasgow, for the general hospital, Stobhill Estate, have been accepted. Bids for excavating for the foundations have been closed, and bids for constructing the buildings will probably be received about February. The buildings will cost about \$1,216,625. J. R. Motion, Ck. Parish Council, 38 Cochrane St.

RAILWAY MATERIALS.—Adelaide, South Australia.—Bids are asked by the Supply and Tender Board Office, Adelaide, until Feb. 6 for furnishing 64 mild-steel boiler plates, 69 spiral springs, 278 engine and tender tires, 1,300 carriage tires, 412 carriage axles, 6 steam-pressure gages, 200 India-rubber buffer springs, 24 bars convex iron, 20 double Detroit sight-feed lubricators, etc. Specifications, etc., may be seen at the office of the Agent-General for South Australia, Victoria St., London.

RAILWAY.—Crete.—The Cretan government, we are informed, is understood as desirous of building a narrow-gauge road 62 miles long along the plains of Marsara, via Heraclea. A 50-year concession will probably be granted. The interest on the capital will be guaranteed by the government. The rolling stock and materials necessary for the construction and exploitation will be admitted free of duty. The work must be sanctioned by an act which will probably be discussed in the Cretan Chamber in March.

BUILDINGS, ETC.—Monterey, Mex.—Plans for several large buildings are reported as being prepared, and a number of others are proposed. Alfred Giles, of San Antonio, Tex., is understood to have prepared plans for several new buildings in Monterey. A new theatre building is proposed, and American architects are wanted. A driveway costing about \$30,000 is being built by the state. An electric road from Monterey to Topo Chico Hot Springs is projected. Manuel Gonzales proposes to build an electric light plant in Victoria (Tamaulipas). A number of the mining companies near here propose to install hoisting machinery at their mines.

PORT AND RAILWAY TERMINUS.—Wu-Chang, China.—Reports state that Chang-Chi-Tung announces the receipt of an edict authorizing the opening of Wu-Chang, opposite Han-Kow, to foreign trade. Wu-Chang is the center of an important trade, and the site of the terminus of the Canton Ry. Considerable harbor work will be required.—At the annual meeting of the Shan-Tung Ry. Co. in Berlin, Germany, on Dec. 19, it was reported that the work of construction had not been interrupted by the recent troubles. Fifty-nine kilometers of track have been laid and eight locomotives and 228 freight cars shipped. The section of the line between Kiao-Chou and Tsing-Tau, a distance of 74 kilometers, will be opened for traffic next April.

RAILWAYS.—Mexico.—R. J. Hartman, Gen. Mgr. F. C. de Etatepec a Huajuapam de Leon, and also of the F. C. de Oaxaca a Huajuapam de Leon, writes us that surveys have been completed for these two roads, to be about 350 kilometers long. The first-mentioned line will extend from Etatepec to Huajuapam, of which 70 kilometers are completed, and the second road will extend from Oaxaca to Mihuatlan, of which 37 k. are completed. So far those interested have provided their own funds, but Mr. Hartman has now come to New York, staying at the Waldorf-Astoria Hotel, to sell bonds on 60 miles of line now in operation. The company will contract for future parts. Jose Garcia Taruel, Pres., Mexico City; Juan de Morales, Ch. Engr., Oaxaca, Mex.

RAILWAYS, ETC.—France.—We are informed that Jos. Evesgne, 36 rue Tibiers, Versailles, has the concession for an electric road from Maraiselles to Sausset, Chateaufort-lez-Martignes, etc.—The Compagnie Generale de Traction, Rouen, France, has the concession for a tramway between Boisguillaume and Rouen.—The French government has been asked by Algeria for a loan of \$10,500,000 for a railway between St. Charles, Bone, La Calle and Ain Beldja.—The Mayor of Romorantin, France, wants bids for a concession for an automobile service.—Surveys for a railway between Brussels and Ghent, 50 kilometers, are being made. There will be several large viaducts and bridges, and the entire work will cost about \$4,000,000.—The council of Fribourg, Switzerland, has voted \$30,000 to aid in the conversion to electricity and extension of the Fribourg-Morat Ry., worked by the Jura-Simplon Ry.

RAILWAY.—Nicaragua, C. Am.—J. Wiest, Civil Engr., Managua, Nicaragua, writes us that in November he signed the contract for a railway 37 miles long, which is to connect the two existing divisions, the Occidental and Oriental Divisions. The new road will be called the Central Division, and will start at Managua and join the Occidental Division at La Paz, giving a through route from Corinto, the principal harbor of the country on the Pacific coast, to Granada, on Lake Nicaragua. The maximum grade will not exceed 2%, and the sharpest curve will be 90°. The government furnishes the rails, land, etc., and the contractor the rest, doing the work for \$23,000. The work is to be finished in one to two years, according to payments made by the government. E. Muller, formerly U. S. government service at Buffalo, N. Y., Bruno Mierisch and Adolfo Cardenas will be the engineers; Wm. Simpson will have charge of the tracklaying and construction, and Mr. Wiest will be the chief engineer as well as the contractor.

PUBLIC WORKS.—Austria-Hungary.—The English "Board of Trade Journal," reports as follows on the proposed public works in Austria-Hungary: There is only one quay and one grain elevator at the harbor of Budapest, and all the loading and unloading is performed entirely by hand. The warehouse accommodation is both primitive and limited. After a report by experts sent abroad to study harbor works, Bela Gonda, Section Counsellor to the Hungarian Ministry of Commerce, has submitted plans for a commercial harbor at the upper end of Csepel Island, and will consist of several basins. The quays will be of stone and wide enough to permit the erection of warehouses and grain elevators, as well as a double line of rails for moving the electric cranes. Beside the proposed goods and coaling station about 1,500,000 meters of land will be reserved as a site for factories. The government proposes to build two ship canals, one to join the Danube and the Theiss, and the other the Danube and the Save rivers. The first mentioned canal will extend from Budapest to Csongrad, about 150 kilometers, with a branch from Felegyhaza to Ezegeid, 68 kilometers. The canal will also be used for furnishing water for irrigation purposes. The Danube-Save canal will extend from Vukovar

(on the Danube) to Saurac (on the Save), and will be about 57½ kilometers long. From Samac it is intended to make the Save navigable as far as Sissek, 288 kilometers. From Sissek the route will be continued to Karistadt, a distance of 135 kilometers, by making the River Kulpa navigable. The plans for the Budapest harbor are completed and those for the other works will be completed in the spring. Foreign capital and contractors will be asked to bid on these works by the Ministry of Commerce, at Budapest. The Minister of Finance has forwarded a bill to the Chamber of Deputies asking for \$6,500,000 for enlarging the state foundry at Vajda-llynyad, and improving the machinery, to cost \$600,000; for new offices for the Ministry of Finance, to cost \$800,000; new bridge over the Toza to be completed in 1902, to cost \$500,000; to lengthen the mole in the port of Fiume, to cost \$350,000; new offices for postal, telegraph and telephone purposes, to cost \$400,000; new school buildings, etc., to cost \$1,000,000; to build provincial court houses, to cost \$800,000; agricultural building to cost \$500,000; new railway workshops, to cost \$600,000; doubling lines, etc., \$200,000, and \$200,000 for enlarging stations.

MACHINERY, ETC.—Guadeloupe, W. I.—L. H. Ayme, U. S. Consul at Guadeloupe, reports that he has been requested to notify manufacturers and others interested that detailed information is required here as to the following: Machinery, boilers, engines, evaporators, centrifugals, etc., for the complete installation of a sugar mill to grind cane and make about 500 tons of centrifugal sugar per season. Small crushing mills for grinding cane, to be worked by animal power. The way of installation of small sugar mills to be used with above. Machinery for complete installation of a tannery to make sole and similar leathers; capacity, about 5,000 hides. Tan mill (a) for green bark, (b) for dry bark. Machinery for complete installation of rum distillery; capacity, from 50 to 100 gallons per diem. Machinery for complete installation of rum distillery; capacity, from 500 to 1,000 gallons per diem. In each of these cases, it will be useless to merely send catalogues, especially without prices. Full details are wanted—weight, size, and cost of each separate part, discounts, etc. Several months ago the consul called for catalogues of steam engines and fittings and scores of catalogues were sent in reply; but only a very small percentage gave prices. The result was that while a number of orders were placed, the goods were in several instances ordered from people who had quoted prices, although articles shown in catalogues without prices would have been preferred. The merchants here understand that prices are liable to variation as the price of iron and metals varies, but they want some price quoted so that they can make calculations. The way of these people is to want to have all the information in their hands for a long time; then, when they are ready to order, they wish to have no delay whatever. They simply will not write saying exactly what they want and wait for a price. They will study out that the article wanted will cost about so much and then order it. Further, manufacturers should be prepared to carry on their correspondence in the French language and to use the metric system throughout. There is a good trade to be worked up here, slowly but surely, in machinery of many kinds. American machines have proved better and cheaper than the French machines, and the difference in tariff in favor of France is more than offset by the lower freight rates from the U. S. The consul has sent to one large electric company a request for an estimate for lighting this city with arc and incandescent lamps. Only one plan of the city could be secured and time was pressing (several French firms and one Canadian company are figuring for the contract) or he would have called for estimates from all interested. Referring again to the catalogues, etc., requested, time will be saved if they are directed to T. Papin, Besancon, Bataillon, Vapeur, Pointe a Pitre, Guadeloupe. The American Exchange, Pointe a Pitre, Guadeloupe, has been organized and wishes catalogues, price lists, samples, etc., of American manufacturers. It is hoped in time to extend the trade to Martinique and the other West Indian Islands. The American Exchange has an order for a gas or naphtha automobile for two persons, light weight, good climber and with buggy top, and the fullest information, prices, etc., are wanted at once.

RAILWAYS, ETC.—Ecuador.—P. M. de Leon, U. S. Consul at Guayaquil, Ecuador, reports that in a former report he made regarding the Guayaquil & Quito R. R. that certain statements he made were inaccurate. In a number of facts the work done was very much less than represented, and grave mistakes were made in the location of the line, as evidenced by landslides during the past winter which buried the track which had been graded and rendered its restoration hopeless. The Ecuadorian Association, of Edinburgh, Scotland, has now been formed, which has bought out the Ecuador Development Co., 33 Wall St., New York, N. Y. The association, it is said, represents New York, London and Edinburgh capital; it has a number of mining engineers in the country who are actively prospecting, and it has made a contract with the J. P. McDonald Co., 33 Nassau St., New York, to build the road to Quito. Mr. McDonald recently built a road for the British government in Jamaica through a rough, mountainous country. The consul is informed that the line now adopted, which follows the valley of the Chan-Chan River, is not liable to serious danger from landslides. Work is being prosecuted with energy, and a considerable portion of the route to Sibambe (about 50 miles distant from Chimbo), the most difficult part of the line, is already graded and ready for rails. Nearly 3,000 Jamaica laborers are at work, and 2,000 more are expected soon. This labor, although inferior to that of the American negro, is better than native, which is not only scarce, but unreliable. A number of American engineers, subcontractors, and foremen are employed on the works; but there is need for many more, especially for the two latter classes. Competent and sober men can find employment as clerks, and several good stenographers who can speak and write Spanish as well as English can find employment. The road will be about 300 miles long and will pierce the heart of the Andes. It will cost \$18,000,000 and require about five years to complete. The engineering department and general management are under the control of Maj. John A. Harmon, Guayaquil, Ecuador, and the Ecuadorian Association (probably at 33 Wall St.), New York. Men from the south are preferred at present, as being better able to withstand the trying rainy season. A healthy region is found near Sibambe. Further notes about this work may be found in our issues of July 12 and 19, Sept. 19 and Oct. 4.—The recent Congress granted a charter to a French syndicate for a railway from Bahia de Caraquez to Quito. Bahia de Caraquez is a small port on the Pacific.—It is a matter of general regret that the bill granting a concession to Geo. D. Mumford, Lawyer, 120 Broadway, New York, and his associates for a line from a point near Puerto Bolivar to Zaruma was defeated. The bill passed the house by a large majority, but was lost in the senate by one vote. Mumford & Co. proposed to build the road at their own expense, without any guaranty from the government. The enterprise was backed by New Yorkers, some of whom are interested in the Zaruma mines and whose only stipulation was the mineral rights for a certain distance on either side of the proposed line;

the government to receive 20% of any profit accruing from the development of the supposed deposits. This line, which would have traversed the only mineral belt of Ecuador so far known, was intended to be extended later to the Oriente, where fine rubber forests, valuable hardwoods, and gold deposits are to be found. It is to be hoped that the next Congress may reconsider the action of the last and grant the charter.—The J. P. McDonald Co., New York, has made a contract with the government to construct a wagon road from Sibambe to Quito.

INDUSTRIAL NOTES.

THE CONTRACTORS' PLANT CO., Boston, will move its offices Jan. 1, to larger quarters in the Weld Bldg., 172 Federal St., near South Station.

THE INDUSTRIAL WATER CO., 15 Wall St., New York, is sending out a card calling attention to the fact that its only office is in New York, and that it has no connection with a company in Chicago, that is imitating its name, etc.

THE NORTH HAMPTON PORTLAND CEMENT CO., 26 Broadway, New York, has established a plant of a capacity of 100 tons per day on its property in North Hampton county, Pa. The buildings are completed and the machinery is being installed, and the plant will be in operation within a few months.

THE NATIONAL SKYLIGHT & CONSTRUCTION CO., 120 Liberty St., New York, has the contract for furnishing the skylights and special windows for the new hospital now being erected by the city of Havana, Cuba. All visible ironwork is to be nickel-plated. The company has also just received an order for an iron market shed in Mexico.

THE AUDIBLE ELECTRIC BLOCK SIGNAL CO., 922 N. 19th St., Philadelphia, is equipping 300 miles of the Plant Ry., between Charleston, S. C., and Jacksonville, Fla., with its audible signal (a gong in the locomotive cab). The work is completed from Charleston nearly to Savannah. It is in charge of Mr. E. B. Cornell, De Soto House, Savannah.

A. LESCHER & SONS' ROPE CO., St. Louis, will open on Jan. 1 an office and warehouse at 92 Centre St., New York, where the company will carry a full stock of wire rope. Mr. C. H. Tucker, Secy. and Treas., arranged for this last week when in New York, and at the same time he closed a contract for a Lescher Co.'s patent wire rope tramway, 19,000 ft., to be shipped to South America.

THE CROCKER-WHEELER CO., Ampere, N. J., has had a very successful year. Its plant has been operated to its full capacity the entire period. A new branch office has been opened at Pittsburg. The company has some 25 different orders in hand for engine-type generators; also orders for 60 motors for power work at the U. S. Mint, Philadelphia, aggregating over 300 HP.; 35 motors, 400 HP., for the Toledo Bridge Co., etc., etc.

THE OTTO GAS ENGINE WORKS, Philadelphia, has acquired the entire block upon which its present shops stand, and has let contracts for two brick buildings, which will increase its floor space over 12,000 sq. ft. Orders have also been placed for tools and other equipment, which will enable the works to nearly double its present capacity. The new additions will cost about \$100,000. The business now on hand and in sight will keep the entire plant busy for nearly the entire year 1901.

THE SOIL PIPE ASSOCIATION has been formed at Pittsburg, according to press reports, and has advanced the price of all soil pipes 12½%. The Central Foundry Co. was organized in April of last year and consolidated 22 of the leading soil pipe manufacturers. Of late the competition with independent companies is said to have compelled the taking of contracts at a loss by all parties. Twelve of the independent companies are interested with the Central Foundry Co. in the recently formed association.

THE BETHLEHEM STEEL CO., South Bethlehem, Pa., reports that a contract has been closed with the General Electric Co. for six more of the weldless field rings of Bethlehem nickel steel for the extension to the power plant at Niagara Falls. These rings measure 142½ ins. outside diameter, and 130¼ ins. inside, leaving the walls 5½ ins. thick. The width of face is 50¼ ins., and the estimated weight of each ring is about 35,000 lbs. They will be worked upon a mandrel under the hydraulic press, and are said to be among the largest forgings of this sort which have yet been produced. Among other orders now in hand at the Bethlehem works may be noted the shafts and engine forgings for one of the new ferryboats which are under construction at the yards of Harlan & Hollingsworth Co., Wilmington, Del., for the New York ferry of the Central R. R. Co. of N. J.

THE STANDARD AUTOMATIC GAS ENGINE CO., Oil City, Pa., which builds gas engines for electric lighting, power and traction service, reports a large number of recent sales of its single cylinder gas engines, among them two of 100 HP. for the Empire Gas & Fuel Co., Wellsville, N. Y., and among sales of its larger types of engines, two 200 HP. double-acting tandems to American Gas Fuel Co., Harrisburg, Pa., and two 500-HP. double-acting tandems to Oil City St. Ry. Co., Oil City, Pa. The company is also to furnish a plant of four 500-HP. gas engines for a street railway company and one 200 HP., one 250 HP. and one 400 HP. for a new electric light plant. The company is now busily engaged in extending its plant by the addition of a new brick machine shop, 65 x 100 ft., which will employ about 25 additional men. The officers of the company are: Pres., J. W. Raymond; Vice-Pres., J. B. Smithman; Treas., L. Milton.

Mail Delivery Notice.

The first pages of Engineering News go to press on Monday each week, and the last pages, including "Wants," "Proposals" and "For Sale" cards, about Wednesday noon. All papers for Boston, Philadelphia, Washington and Greater New York should be received **Thursday morning**. All places East of the Mississippi should be reached by Friday afternoon.

If your paper is not received promptly, make a complaint in writing to your local post-office officials. This will cause an investigation, and the complaint will finally reach the office where the delay occurs.

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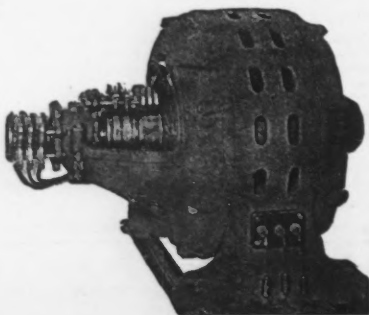
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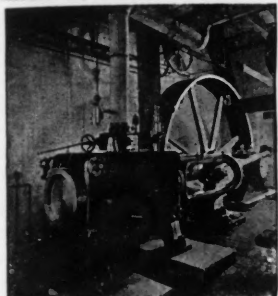
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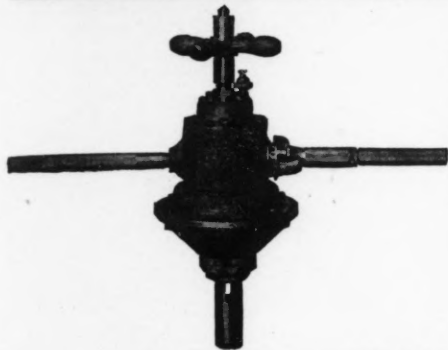
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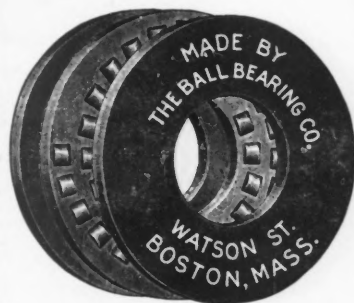
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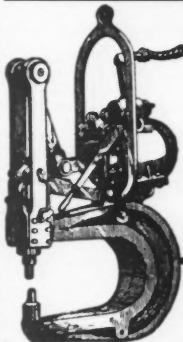
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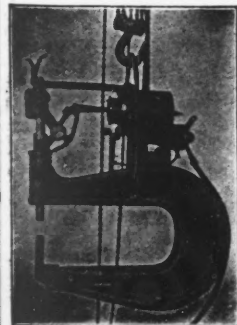
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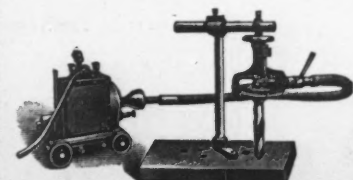
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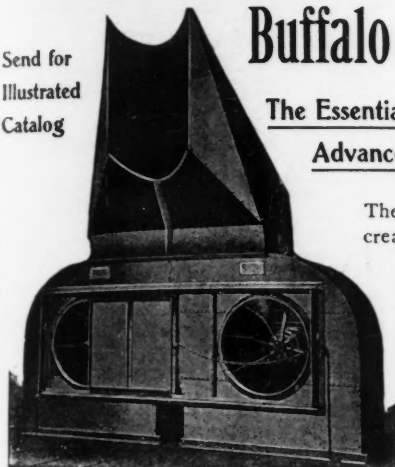
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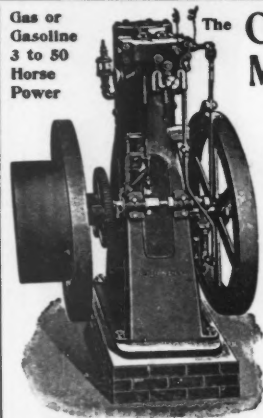
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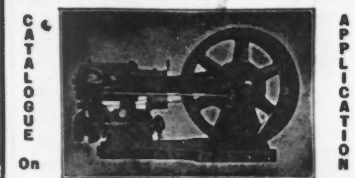
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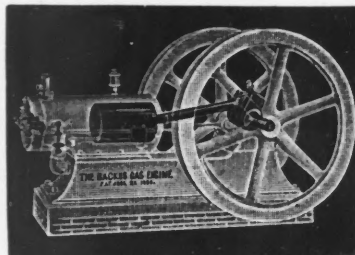
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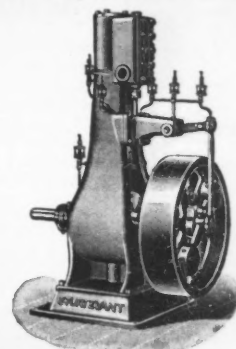
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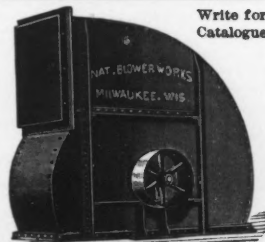
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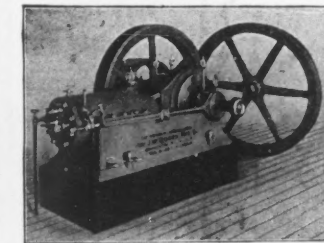
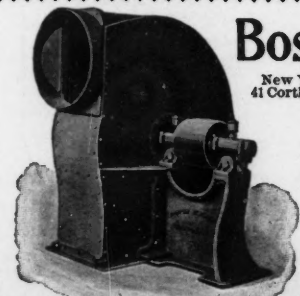
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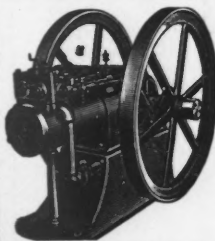


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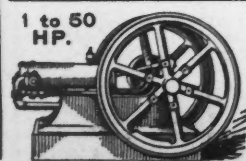
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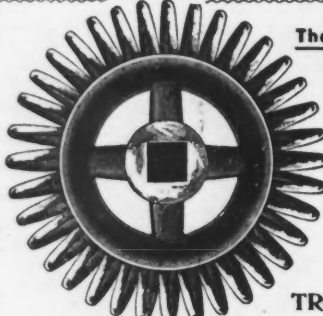
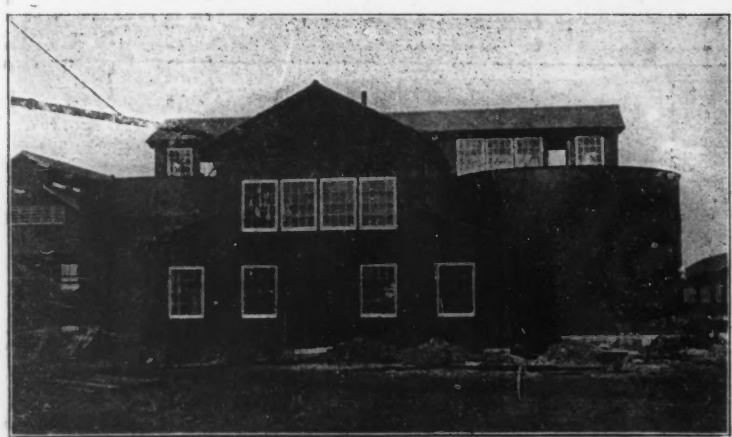
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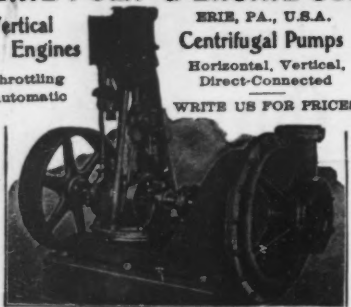
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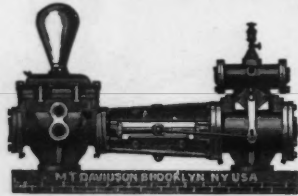
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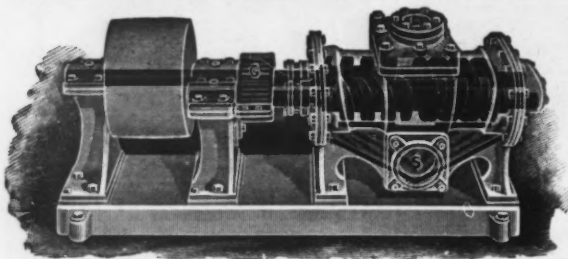
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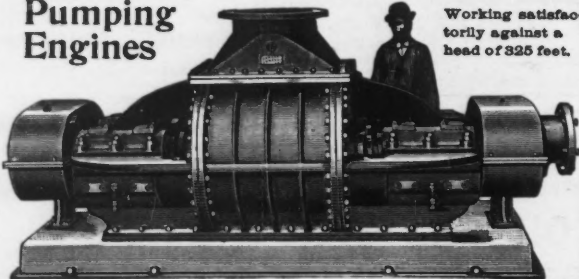
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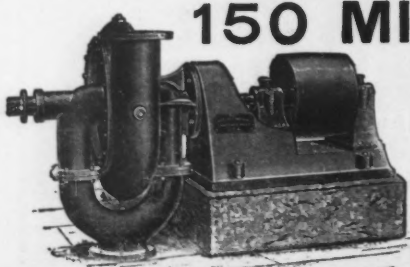


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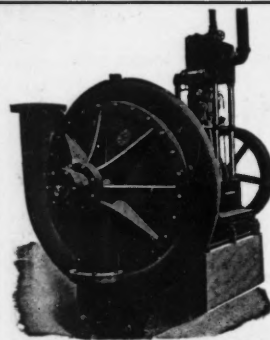
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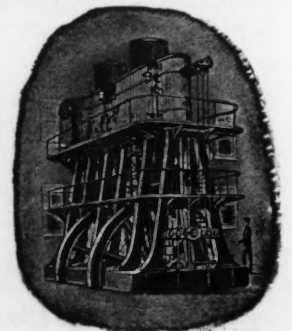


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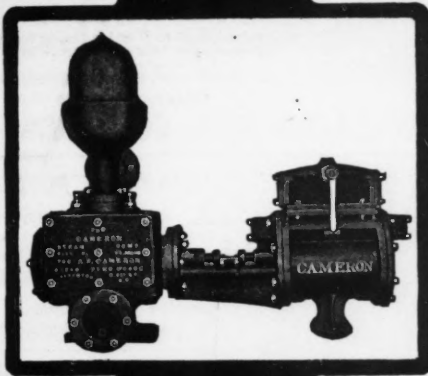
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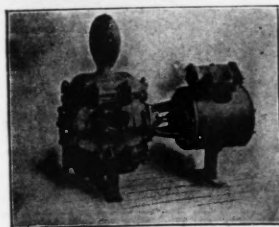
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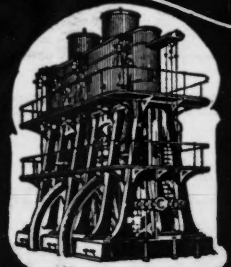
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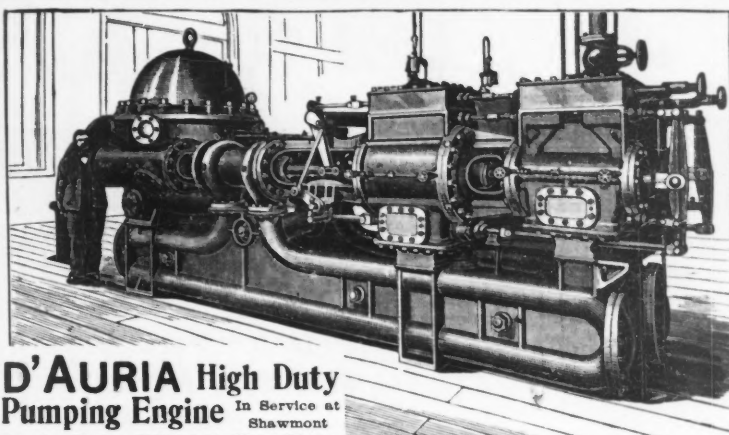
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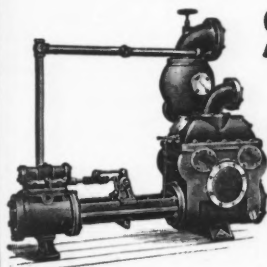
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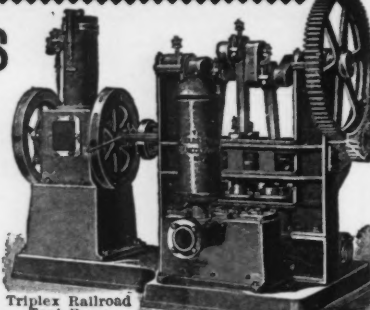
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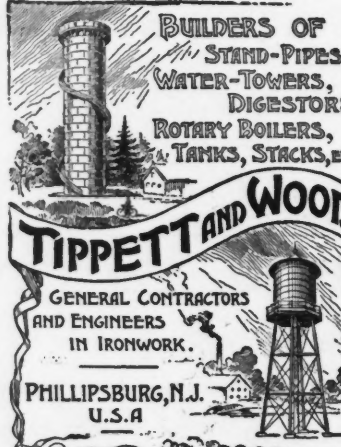
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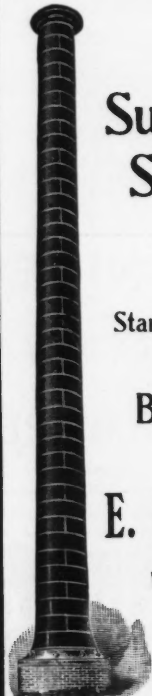
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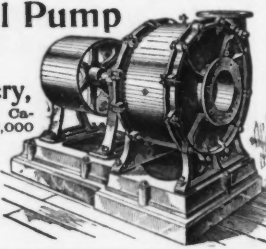


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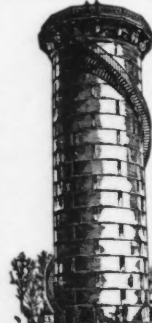
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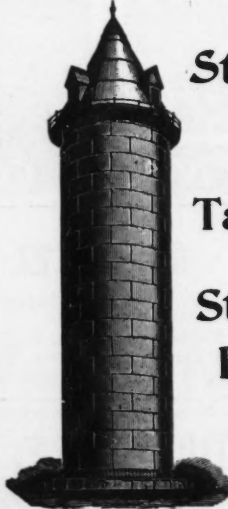
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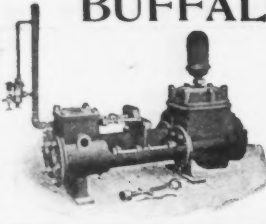
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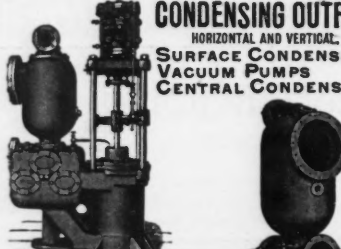


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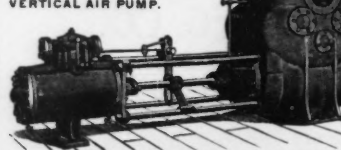
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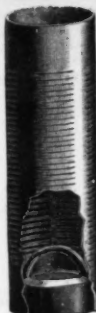
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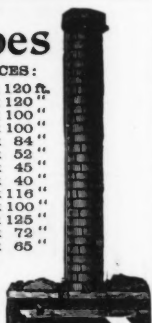
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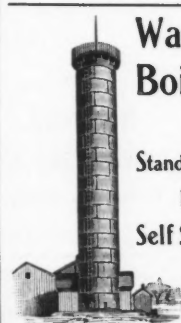
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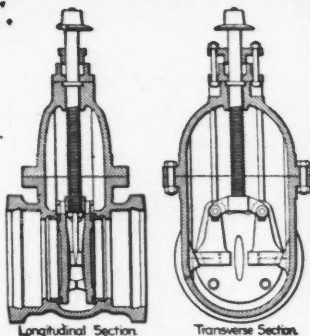
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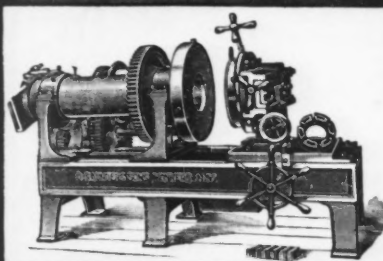
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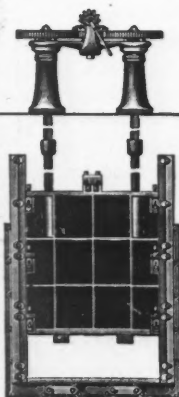
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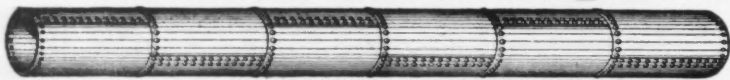
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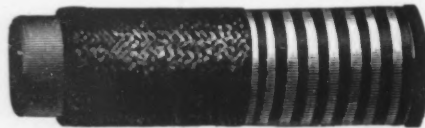
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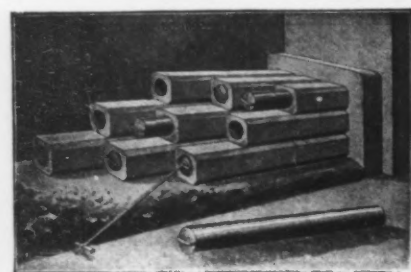
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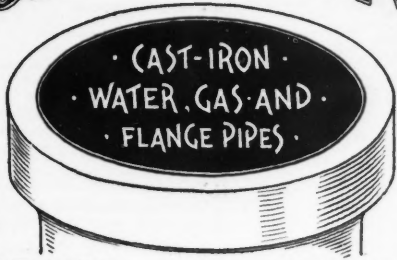
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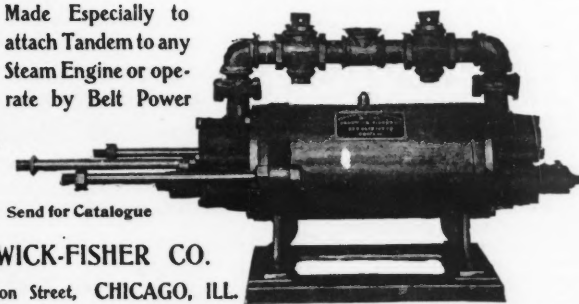
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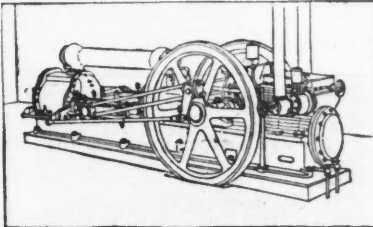
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WANTED.—A POSITION as Instrumentman, by young man, 25 years of age; 1 1/2 years' experience; good education; good references; will go anywhere. Address "C. 48," Engineering News, New York. 48-5t

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DRAFTSMAN AND ENGINEER; 8 years' experience; bridge and structural iron work; wishes position in N. Y. city. "M. 51," Engineering News, New York. 51-2t

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YOUNG CIVIL ENGINEER, university education, desires position with contractor or engineer; has superintending, pavement, railroad and bridge approach construction. Address "E. 50," Engineering News, New York. 51-2t

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GRADUATE ENGINEER, 31 years old, married; 6 years' experience on topographic and railroad surveys and construction; wants permanent engagement or partnership in South; good references; at liberty Jan. 1. Address "C. 52," Engineering News, New York. 52-2t

POSITION WANTED.—By experienced structural draftsman and engineer. Address "B. 52," Engineering News, N. Y. 52-1t

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"WANTS" Continued on page XXIII

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WANTED—MECHANICAL ENGINEERS.—We are continually increasing our output of elevating, conveying, crushing and screening machinery, and wish to correspond with competent engineers trained in this class of work, who are open for engagements. Address THE AULTMAN COMPANY, Canton, O. 50-11

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FIRST-CLASS RAILROAD SUPERINTENDENT WANTED.—To assume charge of a section of a Canadian railroad, part of which is now being constructed. Must have office training in addition to practical knowledge of transportation service and maintenance of roadbed and structures. Address "G. 52," Engineering News, N. Y. 52-11

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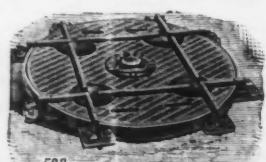
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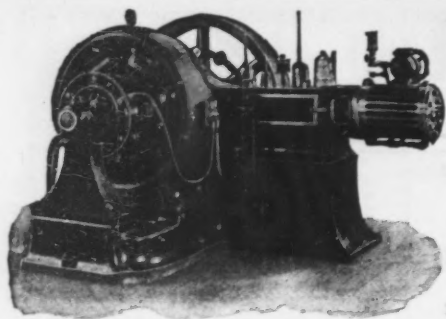
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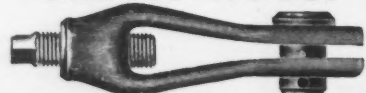
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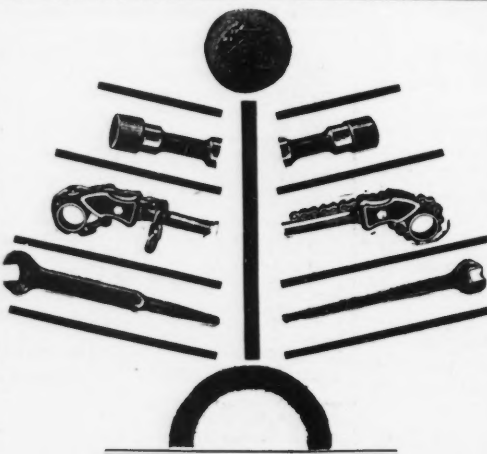
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WATER SUPPLY.

OFFICE OF BOARD OF PUBLIC WORKS, GRAND RAPIDS, MICH., Nov. 18, 1900. Sealed proposals will be received at the office of this Board until Feb. 15th, 1901, at 2:30 p. m., for furnishing the City of Grand Rapids, Michigan, with a permanent, pure water supply of not less than 10,000,000 gallons per day, bidders to furnish maps, plans and specifications for a plant: (a) To furnish water per million gallons, the plant to become the property of the city at the end of a certain time; (b) To be purchased by the city.

Bidders must submit, annexed to their proposals, such descriptions, plans and drawings as may be necessary to show the essential features of the works proposed to be built, such as location, area, elevation, depth and capacity of all reservoirs, the location of intakes, the route, profile and hydraulic gradient and size, material and thickness of conduits or pipes with all the necessary data for determining their carrying capacity, and a description and plan of pumping stations and pumping machinery proposed.

Each bidder must agree to furnish a bond in the sum of \$250,000, with a responsible surety company as surety thereon, conditioned for the performance of the contract.

The Board reserves the right to reject any or all bids. Each bidder shall deposit with his proposal a certified check or certificate of deposit payable to the order of Dudley E. Waters, President, in the sum of 2 1/2% of his proposal, to be forfeited to the City of Grand Rapids as liquidated damages in case he shall fail to enter into contract, in accordance with his proposal, should his proposal be accepted by the Board of Public Works.

By order of the Board. JOS. EMMER, President, pro tem. WILL J. SPROAT, Clerk. 47-12t

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SEWERS.

FREDERICKSBURG, VA.

Sealed proposals will be received by the City of Fredericksburg, Va., for constructing Sewers, until 3 o'clock p. m., Thursday, Jan. 10th, 1901, and then opened.

A certified check for two hundred (\$200) dollars, made payable to W. S. Embrey, Chairman, shall accompany each bid. None but experienced sewer contractors are invited to bid and the city reserves the right to reject any or all bids. Specifications furnished on application. Address

W. S. EMBREY, Chairman Sewer Committee. N. WILSON DAVIS, Engineer. 52-2t

PUMPING ENGINE.

BROOKLINE, MASS.

Sealed proposals for building and erecting a Vertical Triple Expansion Crank and Flywheel Pumping Engine, having a capacity of 5,000,000 U. S. gallons in 24 hours, at the Low Service Pumping Station for Brookline, Mass., addressed to the Water Board, and endorsed "Proposals for Pumping Engine," will be received at the office of the Board in the Town Hall, Brookline, until 3 o'clock p. m., Feb. 19th, 1901.

Proposals must be made in accordance with specifications.

Specifications may be obtained by addressing the WATER BOARD, Brookline, Mass. 52-3t

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WATER-WORKS IMPROVEMENTS.

DALLAS, TEX.

Sealed proposals will be received by the Water Commissioners of the City of Dallas, Texas, at the office of the Secretary of said city, up to 2 o'clock p. m., of Thursday, Jan. 10th, 1901, for furnishing materials and doing work (either wholly or in part) in connection with the improvement of the Water-Works of said city, and substantially as outlined below.

- A. Building an earthen dam and its appurtenances involving moving approximately 90,000 cubic yards.
B. Supplying approximately 1,200 tons of cast-iron water pipes, mostly 24 inches and 16 inches in diameter, together with special castings needed.
C. Supplying gate valves and fire hydrants.
D. Laying water pipe and setting valves and fire hydrants.

All conditions, work and materials must be in full accordance with the plans and specifications, which may be seen at the office of Hugh Raines, City Engineer, Dallas; also at the office of the Consulting Engineer, Room 707, No. 10 Wall St., New York city, on and after Jan. 1st, 1901.

Each proposal must be accompanied by a certified check, the amount being three (3%) per cent. of the aggregate amount of the proposal, made payable to the Treasurer of the City of Dallas, Tex., as a guarantee that the bidder will enter into a contract acceptable to the said city and properly execute the same, said check to be forfeited if he fails so to do.

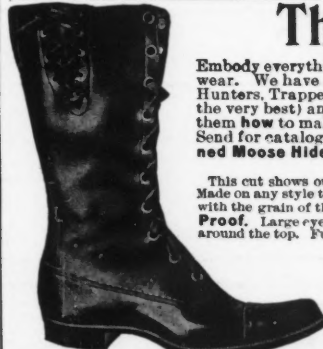
Satisfactory security will be required from each bidder to whom a contract is awarded.

The City of Dallas reserves the right to accept or reject any or all proposals. BEN. E. CABELL, Mayor. CHESTER B. DAVIS, Consulting Engr. 51-3t

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Proposals for Manufacturing, Furnishing and Delivering Water Valves, Sluice Gates and Mud Valves for Settling Reservoirs and for the Pump Mains from the Eastern Pumping Station, on the Water-Works Grounds, near California, Ohio.

Sealed proposals will be received at the office of the Board of Trustees, "Commissioners of Water-Works," of the City of Cincinnati, Ohio, until 12 o'clock noon of Tuesday, Jan. 15th, 1901, for the manufacture, furnishing, and delivery of Water Valves, Sluice Gates, and Mud Valves for the Settling Reservoirs and for the Pump Mains from the Eastern Pumping Station on the Water-Works Grounds, near the Village of California, in Hamilton County, Ohio, in accordance with plans, specifications and drawings on file in the office of the Chief Engineer of the Board of Trustees, "Commissioners of Water-Works."

The same to be paid for as stipulated in the form of contract for the performance of the above work, and which form of contract is on file in the office of the Board of Trustees, "Commissioners of Water-Works."

Plans and drawings of the Water Valves, Sluice Gates, and Mud Valves, and copies of the specifications, estimated quantities of the Water Valves, Sluice Gates, and Mud Valves to be furnished, form of proposal, forms of bonds, and form of contract can be secured at the office of the Chief Engineer of the Board of Trustees, "Commissioners of Water-Works."

Bidders must enclose their bids in sealed envelopes, and deposit the same with the Clerk of the Board of Trustees, "Commissioners of Water-Works," before Tuesday, the 15th day of January, 1901, at 12 o'clock m., and such sealed envelopes must have endorsed thereon the nature of the bid and the name and address of the bidder.

Bids will be opened on Tuesday, the 15th day of January, 1901, at 12 o'clock m., at the office of the Board of Trustees, "Commissioners of Water-Works."

Each bid shall be accompanied with a bond in the sum of \$2,500, properly stamped, and signed by two sureties, for the acceptance of the contract, if awarded by the Board of Trustees, "Commissioners of Water-Works;" or the bidder may deposit with the Board of Trustees, "Commissioners of Water-Works," in lieu of such bond, a certified check or bank certificate of deposit, payable to the order of the Board of Trustees, "Commissioners of Water-Works," or cash equal in amount to the bond as above required.

Bidders must furnish satisfactory evidence of their ability to do the class of work required.

Bidders must use the printed forms, as none other will be received. The Board of Trustees, "Commissioners of Water-Works," reserve the right to reject any and all bids.

By direction of the Board of Trustees, "Commissioners of Water-Works."

CHAS. G. ROTH, AUG. HERRMANN, Clerk. President. 51-3t

Proposals, pages XXVII-XXXIII

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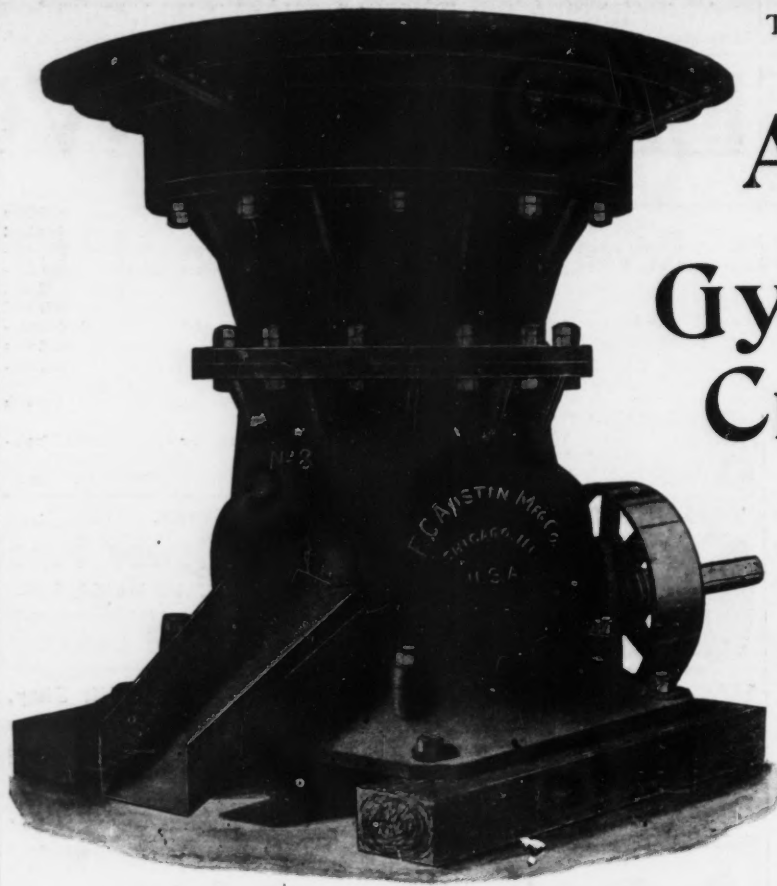
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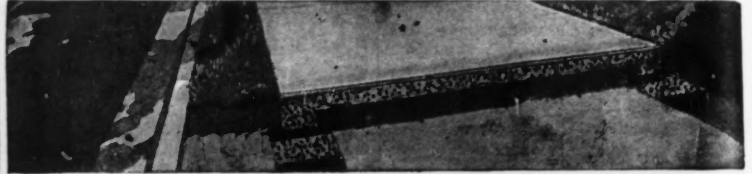
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PROPOSALS FOR CEMENT.—U. S. Engineering Office, Little Rock, Ark., Dec. 1, 1900. —Sealed proposals for furnishing 11,000 barrels American Portland Cement will be received here until noon, Jan. 2, 1901, and then publicly opened. Information furnished on application. ROBERT MCGREGOR, Capt., Engrs. 49-4t

U. S. ENGINEER OFFICE, Custom House, Cincinnati, O., Dec. 21, 1900.—Sealed proposals for furnishing Portland and Natural Cements will be received here until 2:30 p. m., standard time, Jan. 21st, 1901, and then publicly opened. Information furnished on application. H. F. HODGES, Capt., Engrs. 52-4t

Proposals, pages XXVII-XXXIII



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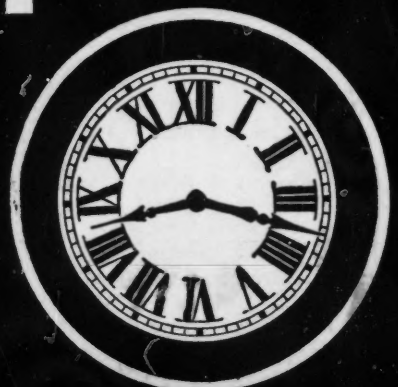
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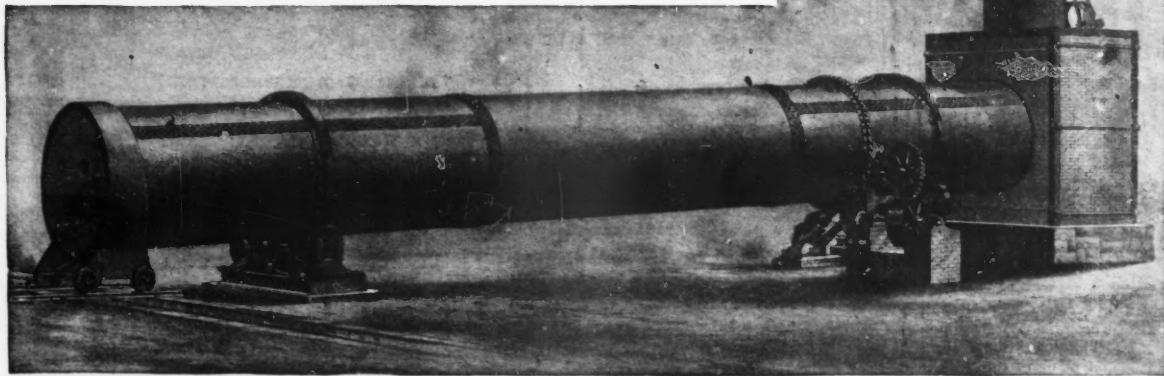
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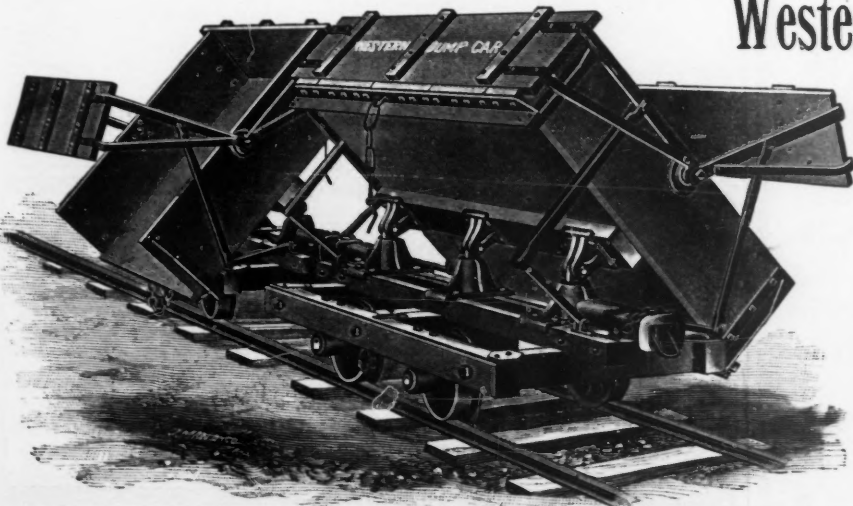


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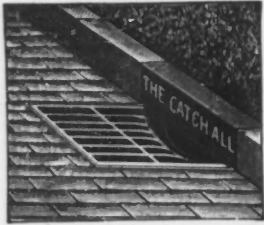
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Specifications, blank forms, and all available information will be furnished upon application to this office, where plans are on file.

Specifications and blank forms of proposals may be obtained and plans of the work seen at the office of the Engineering News, 220 Broadway, New York.

DIEGO LOMBILLO CLARK, Ingeniero, Jefe.

50-4t

SEALED PROPOSALS will be received at the office of the Light-House Engineer, Charleston, S. C., until 12 o'clock m., Jan. 29th, 1901, and then opened, for furnishing the materials and labor of all kinds necessary for the completion and delivery of a Light Tower, Three Keepers' Dwellings, An Oil House, Two Storehouses, a Wharf and Tramway, fences and plank walks for Cape Fear Light Station, N. C., in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application, to Capt. J. C. SANFORD, Corps of Engrs., U. S. A.

52-2t

BRIDGE.

NEW BEDFORD, MASS.

Under the provisions of Chapter 439, Acts of the General Court of 1900, sealed bids or proposals endorsed "Proposals for furnishing and erecting the Metal Work, for the completion of the New Bedford and Fairhaven Bridge," will be received at the office of the Mayor, Library Building, New Bedford, Mass., until 12 o'clock, on the 23d day of January, 1901, and then and there will be publicly opened and read.

The work calls for about 700 ft. of deck-plate girder superstructure 70 ft. wide, consisting of four water spans and nine shore spans, railing, painting, etc., etc.

Proposals will not be entertained unless signed by a person, company or corporation known to possess the proper plant and facilities for such construction.

All proposals must be made upon the blank forms furnished by the Engineer.

Form of proposal and specifications may be obtained and plans seen, at the office of the Engineer, Odd Fellows' Building, New Bedford, Mass.

The City of New Bedford reserves the right to reject any or all proposals, and to accept any, even though not the lowest, and will reject any proposal not approved by the Joint Board of Railroad Commissioners and Harbor and Land Commissioners.

CHAS. S. ASHLEY, Mayor.

WM. F. WILLIAMS, Engineer.

New Bedford, Mass., Dec. 20th, 1900. 52-4t

Proposals, pages XXVII-XXXIII

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There isn't room in this ad. to tell you all about it, but **if you want some of this gold**, send us a postal for one of our Prospecting and Mining Catalogues, No. 22. It gives weights and prices and tells you about people who are using them. Lots of pictures in it, too.

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C. B. Perkins, Attractive Advertisements, Boston.

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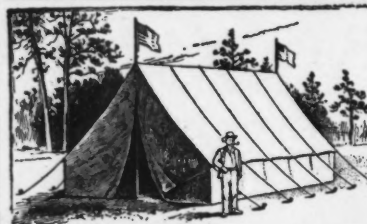
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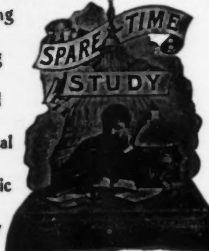
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CLERK SECURES POSITION WITH U. S. SURVEY.
Victor W. Haney, son of Mr. and Mrs. A. P. Haney of this village, left last evening for New York, and to-morrow will sail for Darien, South America, having engaged with the United States Surveying Company for the Isthmian Canal Commission. Mr. Haney, who has been studying for the past seven months with The International Correspondence Schools of Scranton, Pa., secured the position entirely through his own efforts, having applied for the place and accepted, after passing in a creditable manner a rigid civil service examination.—Seneca Falls Newspaper Clipping.

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I cannot express the gratitude I feel towards the Schools. At 47 years of age, with very little education, I enrolled for the Surveying and Mapping Course. I began to rise at once, and, after one year's study, was able to run a first-class modern transit. Soon after, I was appointed Deputy County Surveyor at \$5.00 per day. My advice to any one who wishes to improve himself financially, morally, and intellectually is to enroll at once.
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Odorless Excavating Co. See large Advertisement page xxxi 64 Federal St., Boston, Mass. Dec. 13, 1900

NOTICE TO STOCKHOLDERS.

The annual meeting of the stockholders of THE ENGINEERING NEWS PUBLISHING COMPANY will be held at the office of the company, 220 Broadway, New York city, on Friday, January 4, 1901, at 12 o'clock noon. CHARLES WHITING BAKER, Secretary. New York, Dec. 20, 1900. 52-21

FILTER PLANTS.

LOUISVILLE, KY.
Sealed proposals, addressed to the Louisville Water Company, for the construction of a System of American (mechanical) Filters, will be received at said company's office until 12 o'clock noon, January 26th, 1901, upon plans and specifications submitted by said company. The work is subdivided into 24 different parts, any one or all of which may be bid for by the same party or firm of contractors, as follows:

- Proposal I.—For Pipes, Specials and Gate-valves, outside of and under the filter house;
- “ II.—For Ways in filter house to support an electric crane;
- “ III.—For three Filter Tanks;
- “ IV.—For 20-in., 30-in. and 36-in. Pipes and Specials connected with three filter tanks;
- “ V.—For Gate-valves;
- “ VI.—For Six Balanced 20-in. Piston Valves;
- “ VII.—For Six Floating Weirs;
- “ VIII.—For Sand Layer support and Strainer system for three filter tanks;
- “ IX.—For Electric Traveling Crane;
- “ X.—For Agitator;
- “ XI.—For Electric Motors;
- “ XII.—For Gages and Tablets;
- “ XIII.—For Filter Sand;
- “ XIV.—For One Stand-pipe and four subpate of alumina Solution Tanks;
- “ XV.—For Meter Motor;
- “ XVI.—For Pumps and Slotted Disk-crank;
- “ XVII.—For Floating Discharge Tube in Stand-pipe;
- “ XVIII.—For sulphate of alumina Feed Tank;
- “ XIX.—For Pipes, Specials and Fittings in coagulant house;
- “ XX.—For Galleries, platforms, floors and stairs;
- “ XXI.—For Elevator in coagulant house;
- “ XXII.—For two Chronometers;
- “ XXIII.—For Lighting filter and coagulant houses;
- “ XXIV.—For Heating Systems in filter and coagulant houses.

Plans and specifications for the above can be obtained on and after Dec. 13th, 1900, at the office of the Louisville Water Company.

Plans, specifications and proposals for filters of the same maximum capacity and requirements for water purification as above set forth, made and submitted from designs for American (mechanical) filters, other than those referred to by this advertisement, will also be received. Such plans, specifications and proposals, in order to be considered, must state the terms of payment by the Water Company, and be accompanied by such guarantees to said company as to capacity, efficiency and cost of operation, as may be satisfactory.

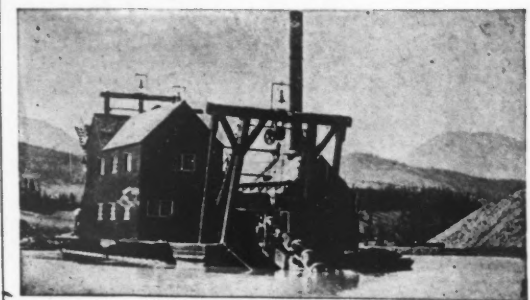
If contracts are made based upon the Water Company's plans and specifications, partial payments will be made in cash at the Water Company's office, from month to month, as the work progresses, as follows: Upon acceptable material delivered at the water purification site, fifty (50%) per cent. upon their estimated contract value; when erected and ready for trial, thirty (30%) per cent. more; and when completed, tried and accepted, the remaining twenty (20%) per cent. A cash certificate, or certified check, equal to ten (10%) per cent. of the amount bid, must accompany each proposal, as a guarantee that, if the contract is awarded under such proposal, the maker thereof will enter into a contract therefor within five days of the making of the award.

Bond, with approved security and acceptable to the Louisville Water Company, to the amount of fifty (50%) per cent. of the money value of the contract, will be required from each contractor. The Louisville Water Company reserves the right to reject any or all proposals submitted.
LOUISVILLE WATER COMPANY, 50-6t By CHAS. R. LONG, President.

U. S. ENGINEER OFFICE, Detroit, Mich., Dec. 1, 1900.—Sealed proposals will be received here until 12 o'clock noon, standard time, Jan. 3, 1901, and then publicly opened, for furnishing material and labor of all kinds necessary to construct and put in operation one large steel-hulled, self-propelling, sea-going hydraulic dredge, with all necessary appliances complete, including electric light plant, distilling and refrigerating machinery; or the dredge without outfit. Bidders to state time of delivery. Information furnished on application. THOS. H. HANDBURY, Maj., Engrs. 49-4t

Proposals, pages XXVII-XXXIII

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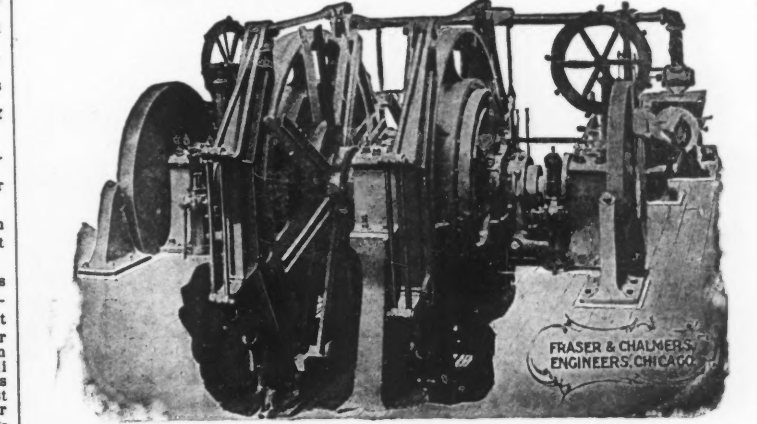
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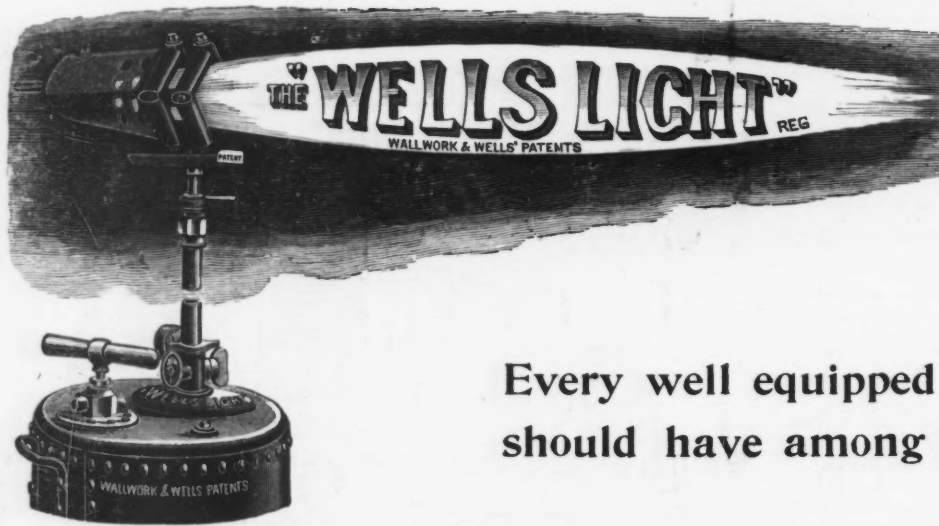
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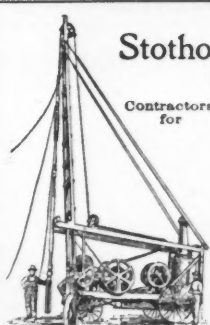
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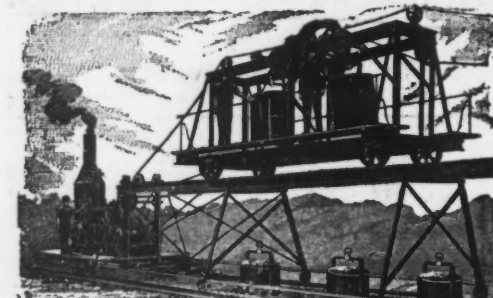
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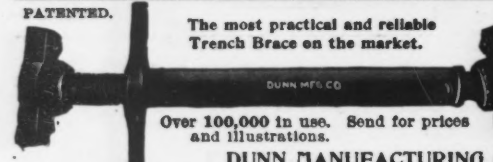


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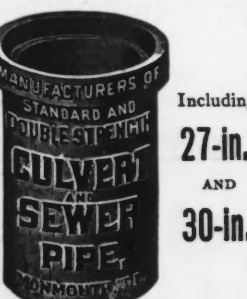
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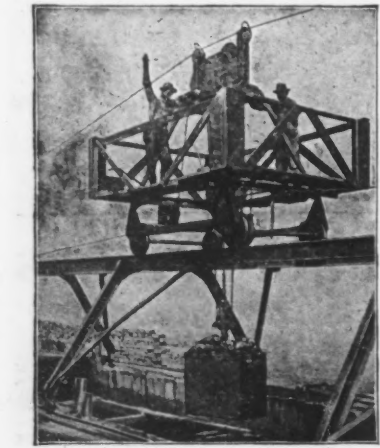
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Continued from Page 18. Continued on Page 56.

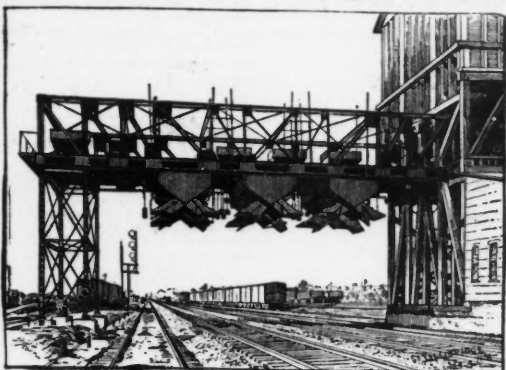
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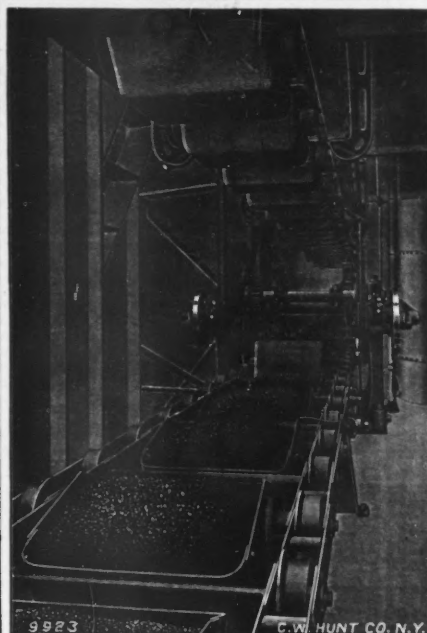


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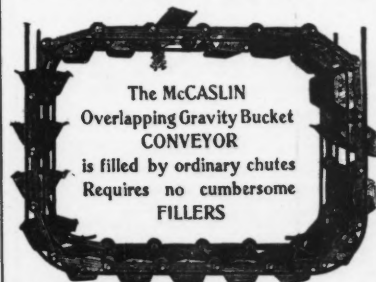
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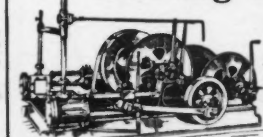
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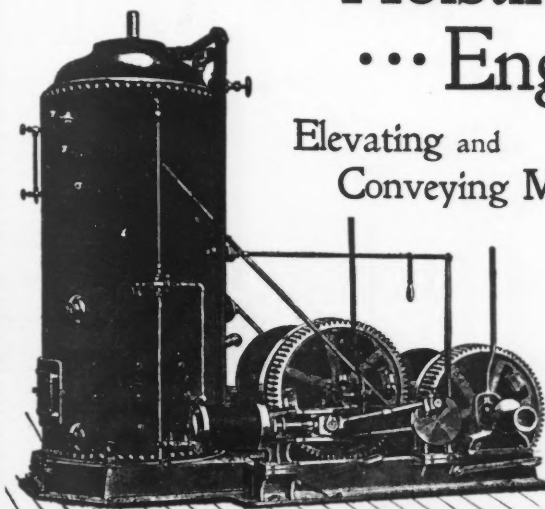
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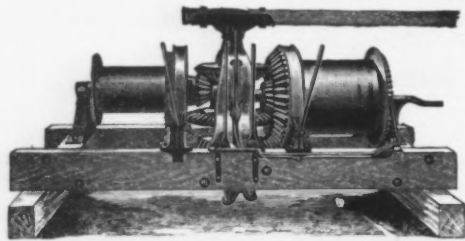
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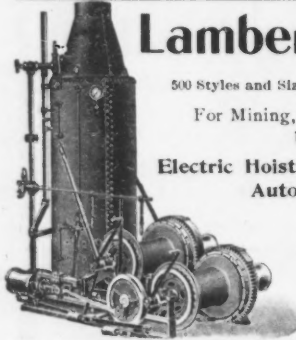
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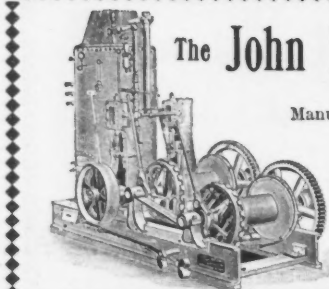


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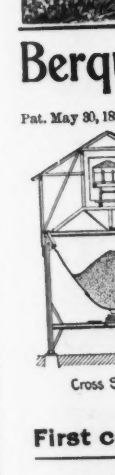
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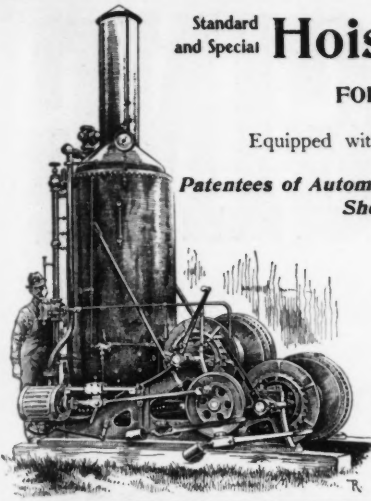
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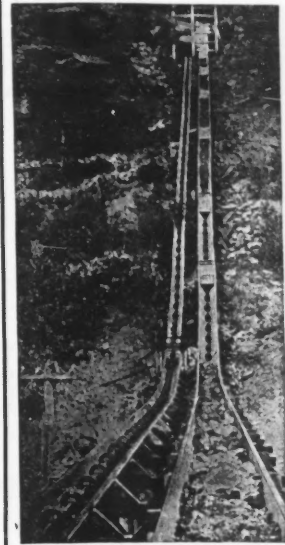
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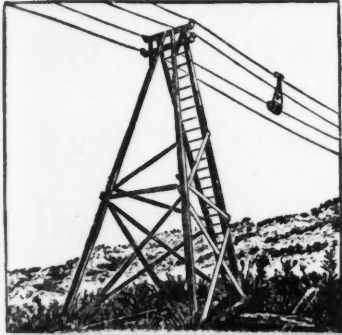
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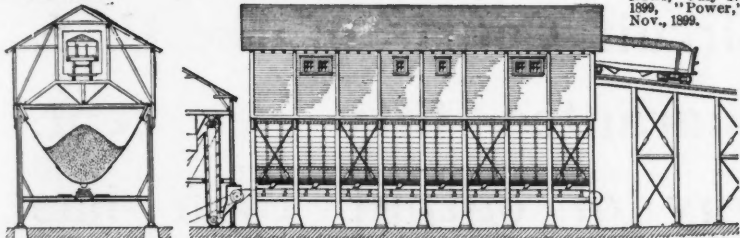
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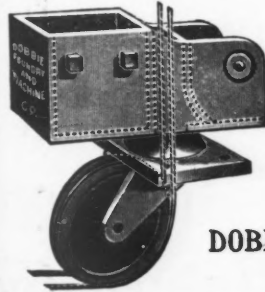
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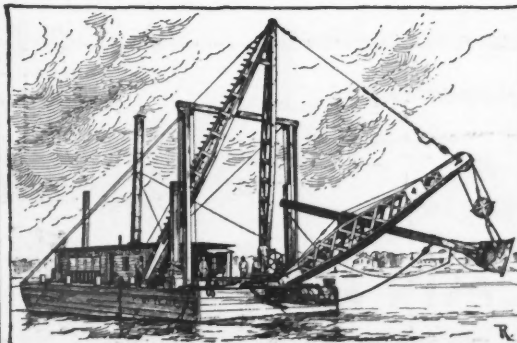
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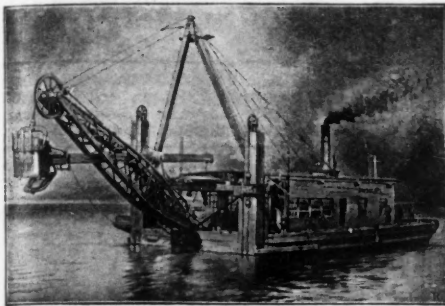
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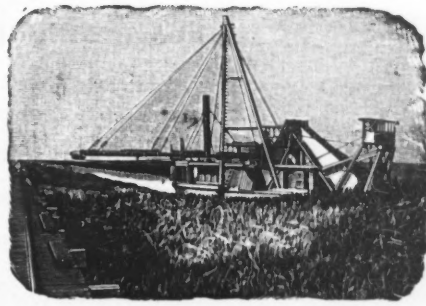
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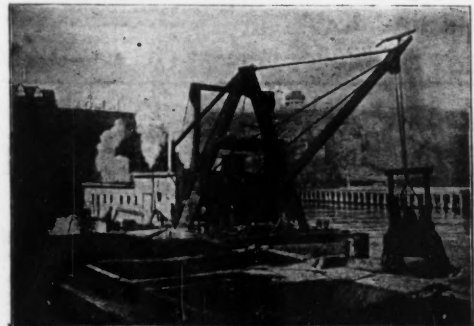
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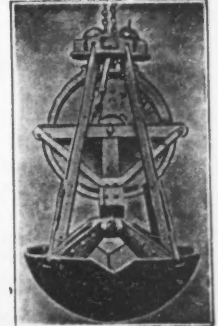
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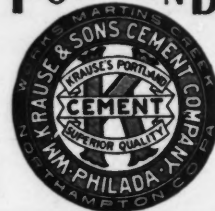
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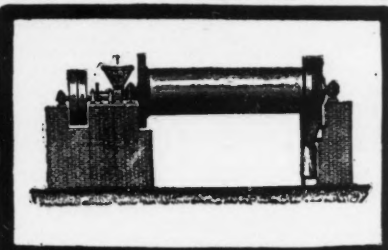
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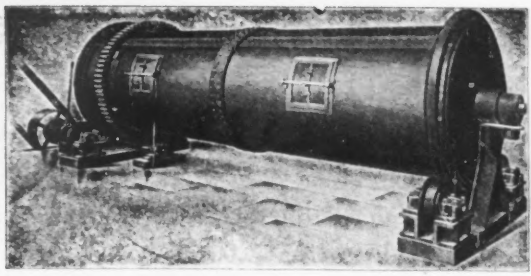
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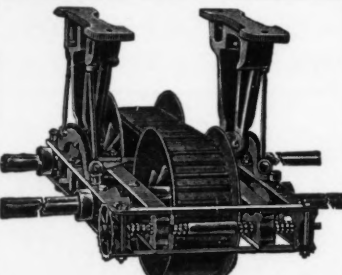
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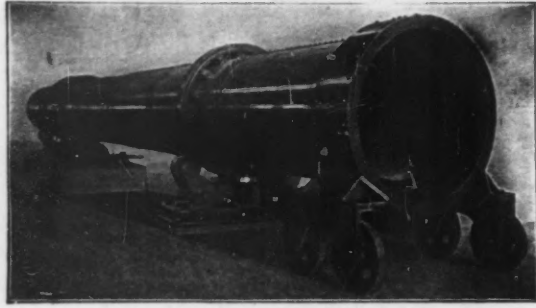
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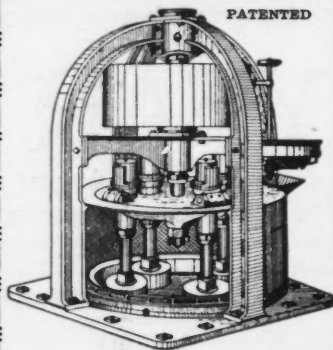
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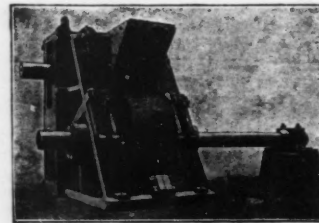
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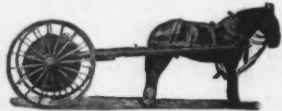
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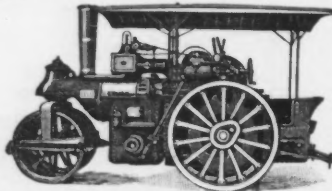
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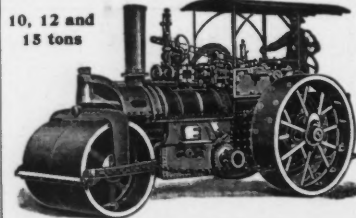
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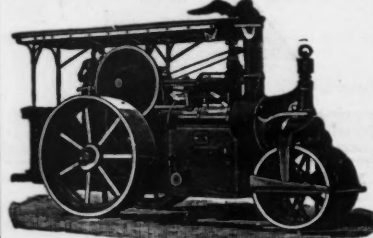
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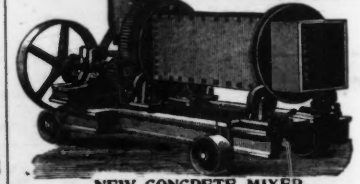
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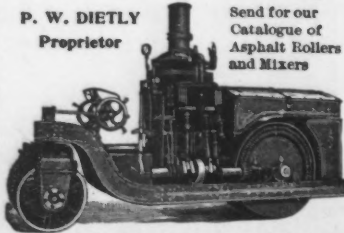
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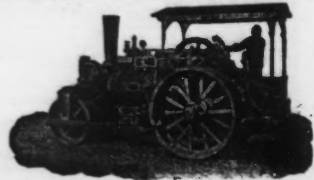
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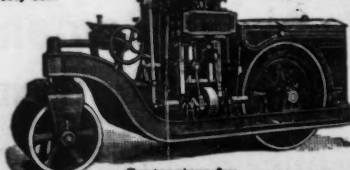
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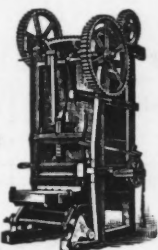
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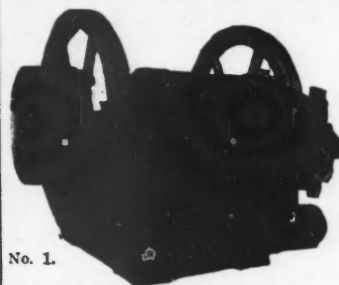
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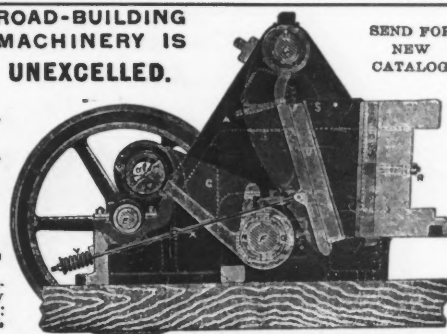
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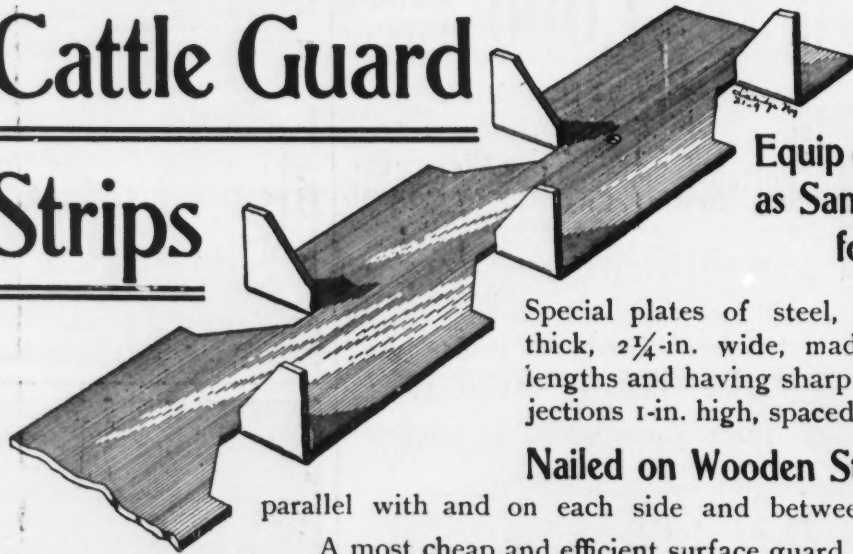
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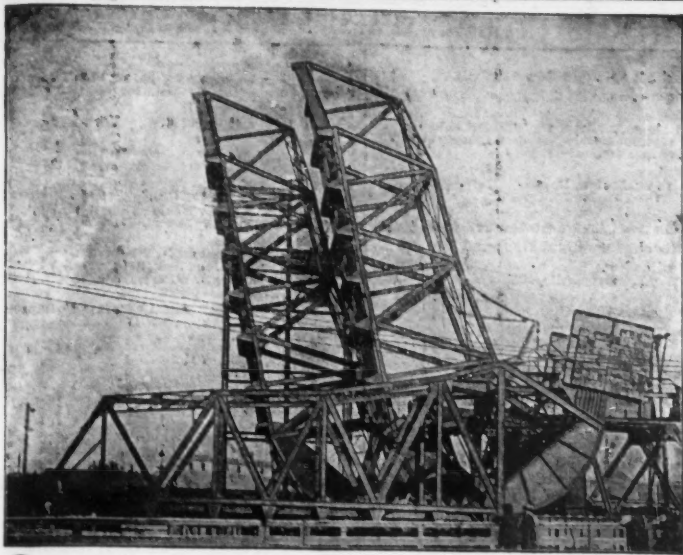
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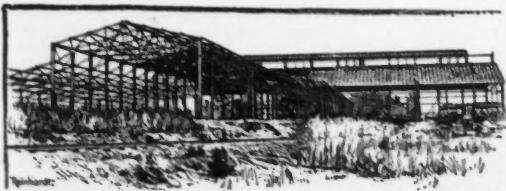
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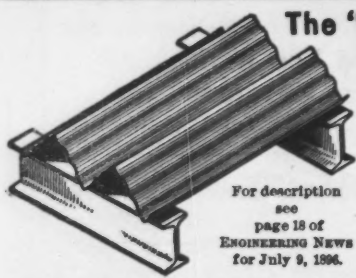
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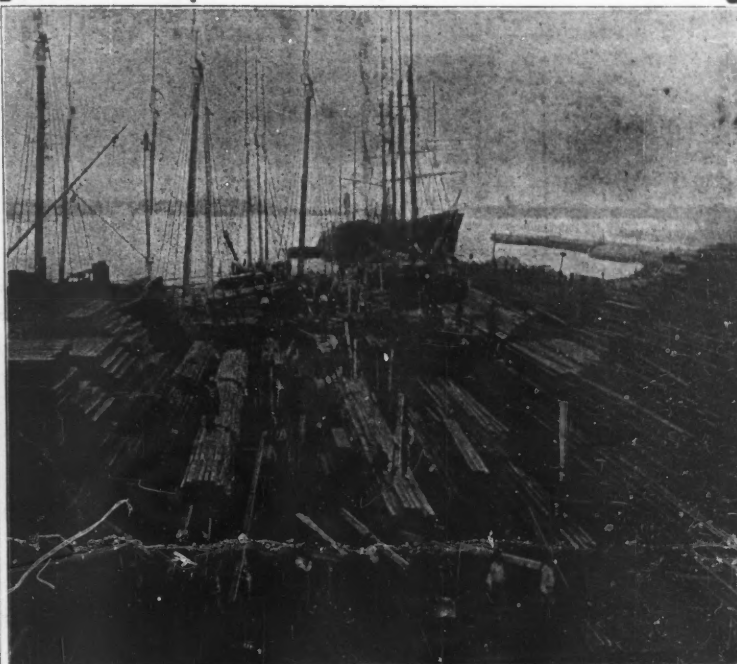
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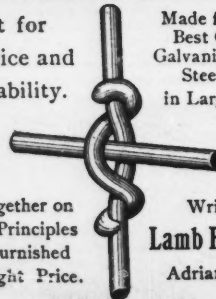
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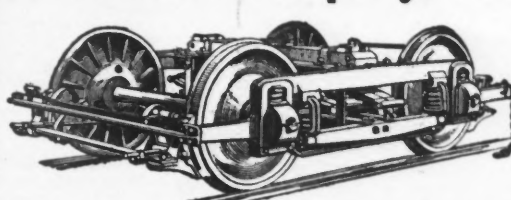
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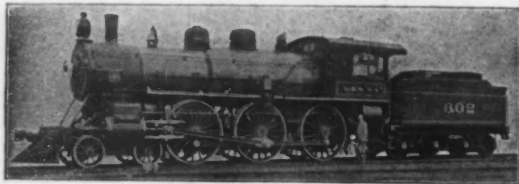
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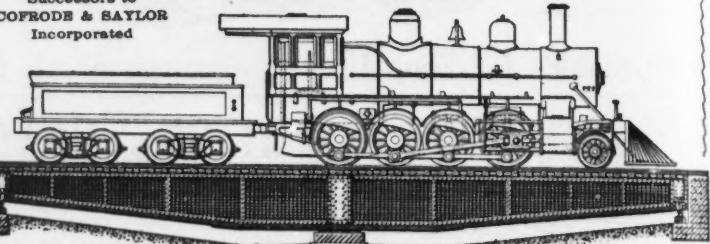
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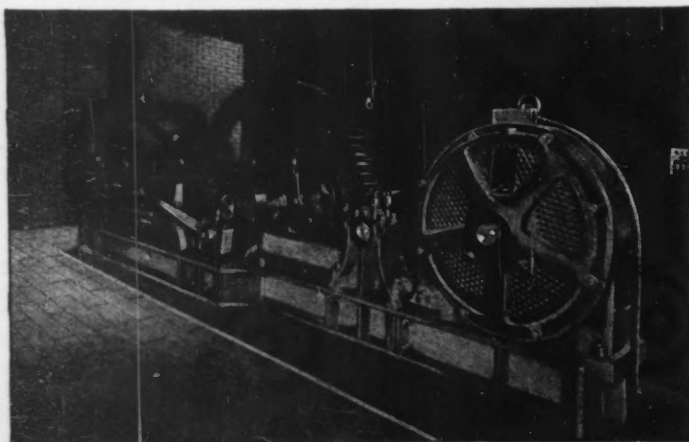
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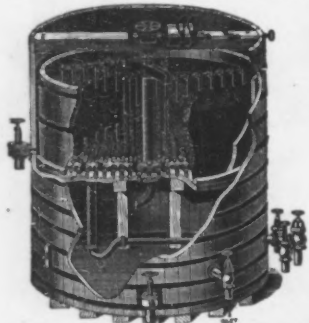
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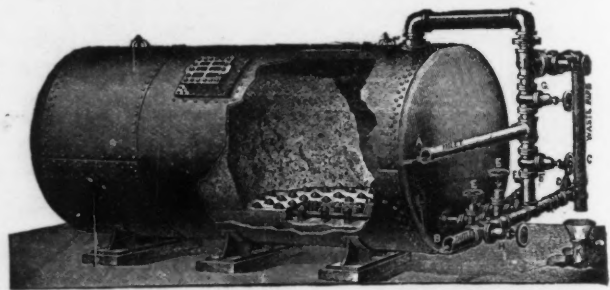
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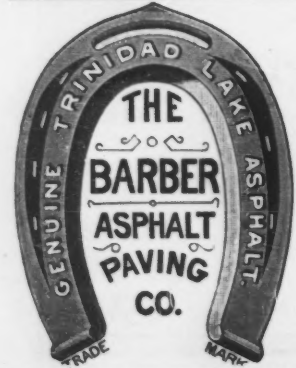
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