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PERSONAL.

Mr. W. M. Davis, for the past 13 years Town Eugineer oodstock, Ont., has been appointed Town Engineer of

Mr. Edward N. Sampson has been appointed Engineer Mr. Edward R. Sampson has been appointed a decoration of the Consolidated Sewer, Water and Highway Departments of Andover, Mass.

Mr. R. H. Cushing has been appointed Assistant Engiof the Interco.onial Ry., in charge of the terminal station at St. John, N. B.

Mr. W. H. Neelands, electrical engineer, of the British Columbia Electric Ry., was married at Vancouver, B. C., Nov. 3, to Miss Elien Alcock.

Sr. Manuel Torres Toriga, City Engineer, of the City of Mexico, Mex., is visiting Chicago, for the purpose of studying municipal improvements.

Col. Saml. M. Mansfield, Corps of Engineers, U. S. Army, has been appointed by President McKinley a member of the California Dehris Commission.

Mr. Ferdinand W. Peck, United States Commissioner-General to the Paris Exposition of 1900, arrived in New York, Nov. 11, on the "St. Louis."

Mr. Nathaniel Roherts, M. Am. Soc. C. E., cousulting engineer, 120 Liherty St., New York, has removed his gineer, 120 Liberty St., New York, has removed his doe to 63 Ocean Ave., Jersey City, N. J.

Mr. H. S. Ayres has been appointed Secretary of the Michigan Brass & Iron Works, Detroit, Mich. He has been connected with this company for a number of years.

Mr. Edwin F. Wendt has been appointed Assistant Enneer of the Pittshurg & Lake Erie R. R., in charge of of Way and Construction, with headquarters in Pittshurg, Pa.

Mr. Nicholas Turnhull, A. M. Inst. C. E., of the firm of Richard Johnson & Nephew, Manchester, England, is visit to the United States to inspect American manufacturing piants.

Mr. Edmund Aisop, civil engineer, of Philadelphia, Pa., has returned to that city from Porto Rico, where he has been for the purpose of securing a general idea of the business prospects in that island.

Mr. John Medway, formerly Superintendent of Motive Power on the Fitchhurg R. R., has been appointed Master Car Builder for Swift & Co., Chicago, with headquarters at the Union Stock Yards in that city.

Mr. A. G. Menocal, M. Am. Soc. C. E., Civil Engineer, retired. U. S. Navy, has been sent to Cuha hy the Navy Department to make a study of the arsenals, wharves and other accessories of the navy there.

Capt. Francis R. Shunk, Corps of Engineers, U. S. Army, has been relieved from duty at the United States Military Academy, West Point, N. Y., and has been or-dered to duty at Manila, Philippine Islands.

Capt. Henry Jervey, Corps of Engineers, U. S. Army, has been ordered to New Orieans, La., for duty in charge of the Fourth District, Mississippi River Improvements, relieving Maj. Jos. H. Williard, Corps of Engineers.

Mr. Theodore Buskirk, of the engineering department of the Lake Shore & Michigan Southern Ry., has been ap-pointed Assistant Engineer of the Track Elevation Bureau of Chicago, Ill., to succeed Mr. T. P. McDonough, re-

Mr. H. H. Vaughan, Mechanical Engineer of the Phila-delphia & Reading R. R., and previously Mechanical En-glneer of the Great Northern Ry., has accepted the position of Mechanical Engineer of the Q. & C. Co., headquarters at its Chicago office, Western Building.

Mr. Friedrich Tischendorfer, Chief Engineer of Electricitats Aktiengeselischaft, formerly Schuckert & Co. electrical manufacturers, of Nuremberg, Germany, is at the Beivedere House, New York. He is visiting this counfor the purpose of purchasing electrical material and machinery.

Lieut, Clarke S. Smith, Corps of Engineers, U. S. Army, has been relieved from duty at the U. S. Engineer Scho Wiliet's Point, N. Y., and has been ordered to New Or-leans, La., for duty under Major Jas. B. Quinn, Corps of Engineers. Lieut. Amos A. Fries, Corps of Engineers, U. S. A., has also been relieved from duty at the U. S. Engineer School, and has been ordered to Portland, Ore., for duty under Maj. Walter L. Fisk, M. Am. Soc. C. E., Corpa

Mr. W. H. Pratt has been appointed Manager of the of the Universal Construction Co., Chicago. He was formerly Receiver and Manager of the Mount Vernon Bridge Co., Mount Vernou, O., and before that was conwith the Edge Moor Bridge Works, Edge Moor, Dei.

Mr. Waiter J. Sherman has been appointed Engineer of the Centennial Commission, Toledo, O., and will have charge of preparing the topographical map and plans of reclaimed land along the water front of Bayview Park, in that city, which will he the site of the coming State Ceutennial.

Lieut. Frederick A. Aitstaetter, Corps of Engineers, U. Army, has been ordered to duty at the U. S. Engineer chool, Willet's Point, N. Y. Lieut. Harley B. Ferguson, Corps of Engineers, stationed at present at the U. S. Military Academy, West Point, N. Y., has also been ordered to duty at the U. S. Engineer School.

Mr. Henry Vier, for the past nine years in charge of the grade crossings work of the New York Ceutral & Hudson River R. R., with headquarters at Buffalo, N. Y., has heen appointed Chief Engiueer of the Map and Survey Department, with headquarters at Syracuse, N. Y. Mr. H. C. Merriman has been appointed to succeed him.

Mr. W. E. Green, Division Superintendent of the Shreveport and Texarkaua Division of the Karsas City, Pittshurg & Gulf R. R., with headquarters at Texarkana, Tex., has been promoted to he General Superintendent, succeeding Mr. F. Mertsheimer, with headquarters at K City, Mo., and his former office has been abolished.

Mr. C. M. Setterwall, iron manufacturer, of Sweden, visiting Pittshurg, Pa., for the purpose of studying American methods and comparing the relative costs of the production of iron and steel in the two countries. He is accompanied by Mr. N. Lillenborg, his New York agent. and their headquarters are at present at the Monongaheia Hotei, Pittshurg.

Prof. William S. A.drich, M. Am. Soc. M. E., of the Conlege of Engineering and Mechanic Arts of the University of West Virginia, Morgantown, W. Va., has returned to his collegiate duties after five months of service in the Naval Eugineer Corps as a Passed Assistant Eugineer, with the rank of Lieutenant, on board the U.S. Repair Ship

Lieut. Jas. P. Jervey, Corps of Engineers, U. S. Army, has been ordered to report at the U. S. Military Academy, West Point, N. Y., not later than Jan. 4, next, for duty in the Department of Civil and Military Engineering. Lieut. Harry Burgess, Corps of Engineers, at present stationed at Galveston, Tex., has also been ordered to the U. S. Military Academy for duty.

Mr. John Cassan Wait, M. Am. Soc. C. E., consuiting engineer and attorney and counselor at law, has removed his offices from the American Surety Building, No. 100 Broadway, to the St. Paul Building, 220 Broadway, New York. Mr. Wait was formerly Assistant Professor of Engineering in Harvard University, Cambridge, Mass., and is the author of "Engineering and Architectural Jurisprudence."

Capt. E. E. Winsiow, Corps of Engineers, U. S. Army, has heen relieved from duty at the United States Military Academy, West Point, N. Y., and has heen ordered to relieve Capt. Mason M. Patrick, Corps of Engineers, of the charge of the First and Second Districts, Mississippi River Improvements, with headquarters at Memphis, Tenn. Capt. Patrick upon being relieved by Capt. Winslow will assume the duties of Secretary and Dishursing Officer of the Mississippi River Commission, with office at St.

Mr. Claude W. Kinder, M. I. C.E., M. Am. Soc. C.E., and Chief Engineer of the Imperial Chinese Railway Administration, has the following personal record, according to "The Indian and Eastern Engineer": Mr. Kinder is the son of Major T. W. Kinder, formerly Master of the Mint in Hong Kong and later of the Japanese mint. hrother, Coi. D. T. Kinder, was formerly in comma Burmah, and another brother is Commander Kinder, R. N. Mr. Claude W. Kinder began his professional eareer in the office of Brown & Marshail, of Birmingham, after studying in France. He later hecame an Assistant Ener under Herr Basson, of the Engineering & Mining of Alexandrofsky, on the Neva. In 1872 he was Assistant Engineer on the Japanese State Railways, and remained in that employ until the Satsuma rehelilon. then went to China and was Resident Engineer of Tong coiliery, and later became Engineer in Chief of the Chinese Engineering & Mining Co., and held that posi-tion until 1888, when he received his present appointment. While in the employ of the coal company he hult, against great opposition, the first standard railway in China—the miles hetween Tongshaw and the coal canal. He also improvised the first locomotive used on this line, out of a stationary engine and a piatform car. In 1889 Mr. Kinder visited the United States and thoroughly inspected our railway system, and he believes generally in American railway methods.

OBITUARY.

Mr. C. H. Sutherland, mechanical engineer of the Grand Trunk Ry., died recently.

Mr. Elias Giesering, sewer contractor, of Marquette, Mich., was kliied by a cave-in of a sewer trench, Nov. 3.

Mr. William H. Hand, contractor and huilder, of New York city, died at his home, Nyack, N. Y., Nov. 15,

Mr. E. A. Elder, General Superintendent of the Fiorida East Coast Ry., died in Toledo, O., Nov. 12, of maiarial fever. His home was in St. Augustine, Fla.

Mr. Leighton Lee, Superintendent of the firm of Lee & Co., engineers and contracters, of Philadelphia, Pa., who was badly injured Oct. 14 by failing from the South Side Elevated R. R. structure, in Chicago, as noted in our issue of Oct. 20, died at the Mercy Hospital, in the latter

Mr. Edwin A. Kimbali, formerly Superintendent of the Mechanicai Departments of the University of illinois aud of the Illinois Industrial Home for the Blind, Chicago, and an inventor and mechanical engineer, died in that city of uro-pueumonia, Nov. 15, aged 64. He was boru in Orange, N. H.

The Hon. Joseph M. Rickey, of Steuhenville, O., for many years County Surveyor, died in Clevelaud, O., Nov. 9, aged 83. He was President of the commission which many years county Surveyor, then in Citerana, 6., 40c.

9, aged 83. He was President of the commission which
established the state line between West Virginia and
Pennsylvania, and had contributed a number of articles
on civil engineering to technical magazines.

Lieut. Keating (son of Mr. Edward H. Keating, M. Am, Soc. C. E., General Manager of the Toronto Ry. Co., Toronto, Ont., and formerly City Engineer of Toronto), Toronto, Ont., and formerly City Engineer of Toronto), died Oct. 26, in South Africa. Lieut. Keating graduated from the Royal Military College, Kingston, Ont., in 1888, and was assigned to the 100th Regiment, then stationed at Halifax, N. S., but which about three months ago was ordered to Africa.

Mr. J. C. Chapman, machinist and the inventor of the Chapmau valve and other devices, died at his home in Boston, Mass., Nov. 4, aged 76. He was boru at New-warket, N. H., and learued the machinist's trade in Boston. He was subsequently Master Mechanic of the Charlestown Navy Yard. He resigned this position to become Superintendent of the factory of the Walworth Mfg. Co., Cambridgeport, Mass., which latter position he held until a few years ago, when he retired from active

Mr. John E. Dustin, Water Commissioner, of Methuen, Mass., died Nov. 2, aged 62. He was norn in Derry, N. H., and learned the machinist's trade in Lawrence, Mass., under the late Aretas Blood. He was employed in locomotive works in Boston for two years, and then engaged in the manufacture of woolen machinery in Lawrence. He was master mechanic for the Brown Lumber Co., Whitefield, N. H., from 1871 until 1876, when he established a machine shop in Lawrence, which he conducted until the time of his death.

Mr. De Witt C. Cregier, formerly City Engineer of Chiago, died there, Nov. 9, aged 60. He was born in New York city and was apprenticed in an engineering estab-lishment, where he hegan the study of mechanical engineering. For several years, until 1853, he was employed on steamers running between New York, Havana and New Orleans, when he went to Chicago to creet the first pumping machinery for the public water supply iie was Chief Engineer of the water-works for 28 years, and in 1861 hecame a member of the Board of Public Works. In 1878 he was appointed City Eugineer, and four years later was made the head of the Department of Public He left this position to become Superintendent of the West Division Street Ry., and in 1889 was elected Mayor of Chicago. During his administration the territory of the city was increased by over 140 sq. miles, and he was conspicuous in the early work in the Columbian Exposition plans, heing largely instrumental in securing the fair for Chicago. He designed the two largest pump ing engines at the North Side Water-Works, Chicago, and was identified with the construction of the first two lake tuuneis. He was also the inventor of many valuable ap pilances used on public works, and was a Past President of the Western Society of Engineers.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

NEW YORK ELECTRICAL SOCIETY. "Surface Contact Railways," Edward Seey., George H. Guy, 120 Liberty St., 1

Johnson. Secy., George H. Guy, 120 Liberty St., New York city.

ROCHESTER ENGINEERING SOCIETY.

Nov. 18. "Trussing and Car Construction," Fred. R. Hertzog. Secy., John F. Skinner.

CHICAGO ELECTRICAL ASSOCIATION.

Nov. 18. "The Development of the Motor-Cycle," F. B. Rae. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.

ENGINEERS' CLUB OF COLUMBUS.

Nov. 19. Secy., H. M. Gates, 12½ North High St., Columbus, O.

ENGINEERS' CLUB OF PHILADELPHIA.

Nov. 19. "Engine and Boiler Testing," H. W. Spangler. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.

Pa.
TECHNICAL CLUB OF OMAHA.
Nov. 21. Secy., J. Harry Lawrie, Omaha, Neh.
ENGINEERS' CLUB OF MINNEAPOLIS.
Nov. 21. Secy., H. E. Smith, 1620 S. E. 14th St., Minneapolis, Minn.

apolis, Minn. ENGINEERS' AND ARCHITECTS' CLUB OF LOUIS-

VILLE.

Nov. 21. Secy., Marshali Morris, 16 Norton Bidg., .
Louisville, Ky.

CIVIL ENGINEERS' CLUB OF CLEVELAND.

Nov. 22. Secy., Wm. H. Searles, Case Library Bidg.,
Cleveland.

Nov. 22. Seey., Wm. H. Searies, Case Library Bldg., Cieveland,
FRANKLIN INSTITUTE.
Nov. 22. "Lightning and Lightning Arresters." A. J.
Wurts; Nov. 23. Discussion, "The Micro-Structure of
Bronzes,, and "Specifications on Structural Steel and
Rails." Seey., Wm. H. Wahi, 15 South Seventh St.,
Philadelphia, Pa.

TENNESSEE RIVER IMPROVEMENT ASSOCIATION. Nov. 23. Chattanooga, Tenn. ENGINEERING ASSOCIATION OF THE SOUTH. Nov. 24. Secy., C. B. Wilson, 1000 Broad St., Nashville,

Nov. 24. Secy., C. B. WIISON, 1000 BIOGR SE, TERN.
CANADIAN SOCIETY OF CIVIL ENGINEERS.
Nov. 24. Secy., C. A. McNab, 112 Mansfield St, Montreal, Canada.
AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
Nov. 30. Secy., Raiph W. Pope, 26 Cortlandt St., New
York city.
BROOKLYN ENGINEERS' CLUB.
Dec. 1. Secy., A. J. Provost, Jr., 191 Montague St.,
BROOKLYN, N. Y.
TECHNICAL SOCIETY OF THE PACIFIC COAST.
Dec. 2. Secy., O. Von Geidefn, 819 Market St., San
Francisco, Cal.

TECHNICAL SOCIETY OF THE PACIFIC COAST.

Dec. 2. Secy., O. Von Geidefn, Si9 Market St., San Francisco, Cal.

BROOKLYN INSTITUTE OF ARTS AND SCIENCES.

Dec. 2. Secy., Henry I. Weed, Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.

ENGINEERS' SOCIETY OF WESTERN NEW YORK.

Dec. 5. Secy., H. J. March, Library Bidg, Buffalo, N. Y.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.

Dec 5. Secy., C. L. Annan, City Engineer's Office, St.

Paul, Minn.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.

Dec. 6-9. Annual meeting, New York city. Secy., Prof.

R. F. Hutton, I. W. 31st St., New York city.

ENGINEERS' CLUB OF ST. LOUIS.

Dec. 7. Secy., Richard McCulloch, 2401 N. Spring Ave.,

St. Louis, Mo.

R. F. Hutton, 12 W. Sief St., New York city.

Dec. 7. Secy., Richard McCulioch, 2401 N. Spring Ave., St. Louis, Mo.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Dec. 7. Secy., C. W. Hunt, 220 West 57th St., New York city.

WESTERN SOCIETY OF ENGINEERS.
Dec. 7. "Electrolytic Corrosion of Underground Structures," Prof. D. C. Jackson. Secy., N. L. Litten, Monadnock Block, Chicago, III.

ST. LOUIS RAILWAY CLUB.
Dec. 9. Secy., H. H. Roberts, 511 Commercial Bidg., St. Louis, Mo.

MONTANA SOCIETY OF ENGINEERS.
Dec. 10. Secy., A. S. Hovey, National Bank Bidg., Helena, Mont.

THE LOUISIANA ENGINEERING SOCIETY.
Dec. 12. Secy., J. F. Coleman, 712 Union St., New Orleans, La.

Dec. 12. Secy., F. W. Tuttle, Baird Bidg., Kansas City, Dec. 12. Secy., F. W. Tuttle, Baird Bidg.

DENVER SOCIETY OF CIVIL ENGINEERS.
Dec. 13. Secy., W. B. Lawson, 36 Jacobson Bldg., Den-Dec. 13. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Col.
NORTHWEST RAILWAY CLUB.
Dec. 13. Secy, T. A. Foque, Soo Line, Minneapoils,

Dec. 13. Secy, Minn.
NEW ENGLAND RAILWAY CLUB.
Dec. 13. Secy., Edw. L Janes, P O Box 1158, Boston,

Mass.
NEW YORK RAILROAD CLUB.
Dec. 15. Secy., W. W. Wheatley, 168 Montague St.,

Dec. 15. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y. ENGINEERS' CLUB OF CINCINNATI.
Dec. 15. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O. SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Dec. 15. Secy., F. A. Charpiot, P. O Box 13, Savannah,

Ga.

ORTHWESTERN TRACK AND BRIDGE ASSOCIATION Dec. 16. Secy., D. W. Meeker, St. Paul, Minn.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA Dec. 20. Secy., R. A. Fessenden. 410 Penn Ave., Pitta-

Dec. 20. Secy., Secy., Secy., Secy., Secy., Secy., Secy., Secy., Secy., F. M. Whyte, 225 Dearborn St., Chl-Dec. 20. Secy., Chl-Dec

Dec. 20. Secy., F. M. Whyte, 225 Dearborn St., Chl-cago, Ill.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.

Dec. 21. Secy., Frank H. Olmsted, Los Angeles, Cal.
BOSTON SOCIETY OF CIVIL ENGINEERS.

Dec. 21. Secy., S. E. Tinkham, City Hall, Boston, Mass.

WESTERN FOUNDRYMEN'S ASSOCIATION.

Dec. 21. Secy., B. M. Gardner, 1522 Monadnock Block,

Chicago, Ill.

NEW YORK RAILROAD CLUB .- At the regular meetlng, on Nov. 7, Mr. M. N. Forney delivered "A Short Lecture to Railroad and Supply Men on Conduct and Character."

FLORIDA GOOD ROADS ASSOCIATION .- The annual convention of this association will be held at Jacksonville, Fia., on Nov. 23. The Piacide Hotel has been selected as J. W. White, Secy headquarters.

MASSACHUSETTS STREET RAILWAY ASSOCIATION. -The regular monthly meeting of this association was held on Nov. 9, at Boston, Mass. Mr. E. Moody Boynton addressed the society upon "Rapid Transit."

ENGINEERS' SOCIETY OF WESTERN PENNSYL-

VANIA.—The regular monthly meeting of this society was held at the Society House, Pittsburg, Pa., on Nov. 15. Dr. R. G. G. Moldenke read a paper on "Cast Iron."

ENGINEERS' CLUB, OF COLUMBUS .- At the meeting on Nov. 5 Mr. F. Herbert Snow, Assoc. M. Am. Soc. C. E., of the firm of Snow & Barber, Boston, Mass., delivered an address on the system of sewer assessments recently established in Boston and Brockton.

WESTERN FOUNRYMEN'S ASSOCIATION .- The regu lar monthly meeting of this association was held on Nov. 16, at the Great Northern Hotel, Chicago. Major Maj-colm McDowell read a paper, entitled "Metalloids in coim McDowell read a paper, entitled "Metalloids in Castings," after which various topics of interest to foundrymen were discussed.

ST. LOUIS RAILWAY CLUB .-At the regular meeting of this ciub, held on Nov. 11, Mr. Williard Beahan, M. Am. Soc. C. E., presented a paper, entitled "The Proper Organization of the Engineering Department of a Rail-There was also a discussion of a paper by Prof. R. A. Smart presented at a former meeting.

NATIONAL MUNICIPAL LEAGUE.-Beginning Nov. 30 and continuing through Dec. 2, there will be held at In-dianapolis, Ind., a conference of those interested in good city government. The Intention of the organization is to make a strong effort to place municipal affairs upon a higher plane. This will be the sixth meeting so far held.

WISCONSIN STATE CHEMISTS' ASSOCIATION.—
This is a new society recently organized for the purpose of advancing scientific chemical research. It is the intention to have monthly meetings. The following are tention to have monthly meetings. The following a the officers for the ensuing year: Pres., Dr. P. Fisch Schlundt; Secy., I. Milwaukee; Vlce-Pres., Herman Schlun Ladoff, Milwaukee; Treas., J. H. Fleblng.

THE NEW JERSEY SANITARY ASSOCIATION .- The

THE NEW JERSEY SANITARY ASSOCIATION.—The 24th annual meeting of this association will be held at the Laurel House, Lakewood, N. J., Dec. 9-10. Among the papers to be read are the following:

"The Powers, Duties and Limitations of Boards of Health," Samuel A. Patterson, Asbury Park; "Methods of Sewage Disposal," Rudolph Hering, New York city; "Public Water Supplies and the Prevention of the Pollution of the Same." James H. Fuertes New York city tion of the Same," James H. Fuertes, New York city.

BOSTON SOCIETY OF CIVIL ENGINEERS .- On the evening of Nov. 11 this society celebrated the 50th a versary of its organization at the Hotel Vendome. versary of its organization at the reception and afterwards 1100 members were present at the reception and afterwards 11stened to a lecture by President Howard A. Carson on "Glimpses of Boston Fifty Years Ago." Mr. Desmond "Glimpses of Boston Fifty Years Ago." Mr. Desmond FitzGeraid gave a historical review of the society, and Secretary Tinkham read a number of congratulatory telegrams from engineering societies here and abroad.

LOUISIANA ENGINEERING SOCIETY .- This society gave its first "outing" on Nov. 5 in the form of a tour of inspection of the points of especial engineering interest in the vicinity of New Orleans. This included trips to the various canals and pumping statious connected with the new drainage system which is being installed in New Orleans. Fully 200 persons, members and friends, par-ticipated in the trip. In September last the society bea member of the Association of Engineering Societles.

ENGINEERING ASSOCIATION OF THE SOUTH .- This society heid its annual meeting Nov. 10 at the U. S. Engineer's Office, Nasnville, Tenn. The Secretary, Mr. C. B. Wilson, submitted his report. Amendments to the institution intended to broaden the scope of the society

were discussed and other general business transacted.
The following officers were elected for the ensuing year:
Pres., W. F. Foster; First Vice-Pres., W. M. Leitwitch,
Jr.; Second Vice-Pres., E. E. Betts; Secy. and Treas., H.
M. Jones; Directors, H. McDonaid, J. S. Walker and C.

RAILWAY SIGNALING CLUB .- The meeting held Nov. 8 at the Great Northern Hotel, Chicago, was an intormal one, owing to the small attendance. The resignation of the Secretary, Mr. Seitz, was presented and accepted, and Mr. Tilton was appointed acting secretary for the re-mainder of the term.

There was a brief discussion on points connected with

the use of bracket posts, showing a wide variation of opinion as to the conditions under which such posts should be used.

The next meeting will be held in New York in January. This will be the annual meeting, for the election of orficers, etc.

ALABAMA SCIENTIFIC AND INDUSTRIAL SOCIETY. This society held its semi-annual meeting, Nov. 5, at the Birmingham Commercial Ciub, Birmingham, Ala.

the Birmingham Commercial Club, Birmingham, Ala.

The committee appointed to consider legislative enactment looking to a more complete record of the output of the various mines and kindred institutions in the State of Alabama, reported favorably on a proposed amendment to the state mining laws, making it compulsory for every operator or lessee of underground mines, ore or coal, lime and bauxite quarries, coxe works, clay works, brick works and kindred institutions, to hie a monthly report of the output to the state mine inspector, and annually a consolidated report. The recommendation of the committee was adopted, and the society will be represented before the next session of the legis.ature.

A committee was appointed to make arrangements for

A committee was appointed to make arrangements for the annual meeting, which will be held in January.

ENGINEERS' CLUB OF PHILADELPHIA. meeting on Nov. 5, Mr. Charles Piez presented the paper of the evening upon the subject of "Coal Handling Machinery." He divided machinery for handling coal into two general classes—continuous and non-continuous; the former comprising chain and beit elevators and con-veyers as ordinarily manufactured, and the latter includlng the various types of automatic and tub holsts, overhead bucket tramways and cable railways, each class having its own field of superior usefulness. Mr. Piez conhis remarks to a brief discussion of continuous coalhandling machinery under the two heads of elevators and conveyors, and he described the requirements which must be met in handling different kinds and sizes of coal, and some of the best mechanical devices which are now em-

Mr. Carl Hering presented an account of recent progress Reference was made to the declining In electric traction. traffic of the various elevated roads resulting from perfected surface systems.

THE CIVIL ENGINEERS' CLUB OF CLEVELAND .-A regular meeting was held Nov. 8th, with 39 members and visitors present. Mr. Oscar Textor, member of the Cieveland Chemical Society, presented a paper, entitled "A Review of Tests of Steel Rivets." The material was basic open hearth steel, with average chemical analysis as follows: Phosphorus, 0.015; manganese, 0.46; sulphur, 0.033; silicon, 0.005; and carbon, 0.11. The rivets were tested for tensile and shearing strength, also by nicking

and bending cold, and for their behavior under the ham mer, both hot and cold. Tests were also made to discover crystallization under the rivet head, if any. ere described as being very satisfactory, and the dusion was reached that with proper manipulation attention to temperatures, such steel rivets are fully equal attention to temperatures, such successions superior ter to the best wrought-Iron rivets and possess superior ter W. H. Searles, Secy.

THE FOUNDRYMEN'S ASSOCIATION .- The Till an. nual meeting of this association was held at the Manufacturera' Club, Philadelphia, Pa.

A report was presented by the executive committee stat-

A report was presented by the executive committee stating the condition of business to be good and improving. Officers for the ensuing year were elected as follows: Pres., P. D. Wanner, Reading Foundry Company, Ltd., Reading, Pa.; Vice-Pres., A. C. Pessano, George V. Cresson Co., Philadelphia; Secy., Howard Evans, J. W. Passon Co., Philadelphia; Treas., Josiah Thompson, J. Thompson & Co., Philadelphia: Executive Committee: Walter wood, Chn., R. D. Wood & Co., Philadelphia; Thos. Glover, Glover, Brown, Frankford, Philadelphia; E. E. Brown, E. E. Brown, & Co., Philadelphia; Stanley G. Fiagg, Jr., Stanley G. Flagg & Co., Philadelphia; Wm. F. Sauter, G. Rehmann & Co., Philadelphia.

The discussion of the topic, "Who is responsible for the cost of patterns in case of a fire in a foundry," was postponed until the next meeting.

A paper, entitled "A Modern Foundry in Europe," was read by Mr. J. A Penton.

FRANKLIN INSTITUTE .- The schedule of meetings for

FRANKLIN INSTITUTE.—The schedule of meetings for November and December is as follows:

Nov. 15, "The Agr.cultural Possibilities of Our New Possessions," Prof. Harvey W. Wiley, Chemist to the U. S. Department of Agriculture; Nov. 16, "The Burton Electric Process of Unhairing and Tanning Skins," George D. Burton, Boston, Mass.; "The Kitson Incandescent On Lamp," Arthur Kitson, Philadelphia, Pa.; "A Process for Fireproofing Wood to be Used on the Woodwork of War Vesseis." Dr. Chas. J. Hexamer, Philadelphia, Pa.; "The Inflammable and Explosive Properties of Smoke Wienerge." Inflammable and Explosive Properties of Smoke When Confined in a Burning Building, and its Influence Upon the Spread of Fire," Wm. McDevitt, Phliadelphia, Pa.; Nov. 22. Spread of Fire," Wm. McDevitt, Philadelphia, Pa.; Nov. 22, "Lightning and Lightning Arresters," A. J. Wurtz, Pittsburg, Pa.; Nov. 23, "The Micro-Structure of Bronzes" and "Specifications for Structural Steel and Rafis," discussiona; Dec. 6, "Reaction Velocity," Dr. R. H. Bradbury, Philadelphia, Pa.; Dec. 13, "The Kite as an Instrument in Meteorological Research," Prof. Chas. F. Marvin, U. S. Waather Bureau: "Commercial Photometers and Light Weather Bureau; "Commercial Photometers and Light Standards," Prof. A. J. Roland, Drexel Institute, Phila-delphia, Pa.; Dec. 14, "Fresh Studies of Pioneer Tools,"

Prof. H. C. Mercer, Doylestown, Pa.

A new section to be known as the "Mechanical and Engineering Section" has recently been formed for the con-

gineering Section" has recently been formed for the consideration of subjects bearing upon the mechanic arts and the engineering problems connected therewith.

At the meeting of the Mining and Metallurgical Section, held on Nov. 9, Mr. Alex. E. Outerbridge, Jr., lectured on "The Mining and Minting of Gold and Silver," giving a brief review of the coinage of the Philadelphia Mint and a description of his work in connection with the study of the spectroscopic method of analysis of single study of the spectroscopic method of analysis of single study of the spectroscopic method of analysis of single study. study of the spectroscopic method of analysis of gold and aliver alloys.

WESTERN SOCIETY OF ENGINEERS.—A special meeting was held Nov. 9, for the reading of the remainder of the papers on track elevation. Mr. W. H. Coverdale described the work on the Pittsburg, Fort Wayne & Chicago Ry. In this case, the bridges were erected on pile bents, act far enough from the ends of the girdera to allow of the masonry abutments being built under them. The floor system consists of V-shaped transverse troughs, with broken stone ballast filled to a depth of 6 ina. above the topa of the troughs. bailasted floor produces very little noise when trains run over the bridge.

Mr. O'Nelli, Superintendent of Track Elevation, repre-enting the city, gave an interesting review of the history of track elevation and the various ordinances that have been passed respecting this work. He also described the at the 16th St. crossing, recently described in our columns.

Mr. H. W. Parkhurst, of the Illinois Central R. R., described the work on the St. Charles Air Line, which rises to its new grade by an incline on the lake front, and then runs west to the Chicago River, the draworlage over which had to be raised to correspond to the track eleva-Chicago River, the draworlage over tion. Ar. L. H. Clarke, the engineer in charge of the elevation of the Lake Shore & Michigan Southern Ry. and the Chicago, Rock Island & Pacinc Ry. was not present, though he had been expected. The work, however, was described by the engineer in charge of the field work. The floor system of the bridges consists of transverse I-beams, with a deck plate to which the rails are boited. At Englewood, however, where the yard tracks cross the aubways, girders projecting above the floor have been dispensed with, and the floor consists of I-beams crossed by Z-bars, to which the deck plates are riveted.

So much time was occupied by the descriptions of the works and the exhibition of a number of stereopticouviews, that it was decided to defer all discussion on the

paper until the next regular meeting.

On Nov. 11 a large party of members and invited guests, including several of the University Trustees, went to Champaign, Ill., to visit the University of Illinois, and particularly the engineering schools.

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NEW PUBLICATIONS.

BRITISH RAILWAY STATISTICS.—Pub. Doc., London, Eng. Five pamphs.; 8 x 13 ins.; pp. 90, 32, 41, 13

Two of these pamphlets contain the regular returns of Two of these pamphlets contain the regular returns of geddents reported to the British Board of Trade and a third gives the results of a special investigation into shunting or switching accidents which was ordered by the House of Commons on June 28, 1898. These last figures cover the period of ten years ending Dec. 31, 1897. Of the two remaining pamphlets one is a report on hours of labor of railway servants, and the other a report on the capitalization, earnings, cost of operations, etc., of British railways for the vear 1897.

management and published by V. G. Moulson & Co., Cleveland, O. Pamph.; 5½ x 7½ ins.; pp. 144.

The title page says: "This work gives the opinions and experience of the hest known authorities as to the proper management and care of steam hollers." The hook is a compilation of articles on hollers, holler management, fuel, construction, incrustation, corrosion, explosions, etc., together with advertisements of ahout 50 concerns which deal in articles needed by steam users. The advertisements are alternated with the text throughout the hook. The information given in the text is of all grades of merit, good, had and indifferent. Some of it is a rather old, such as the results of Prof. Johnson's tests of fuel, made in 1844, and some of it is erroneous, such as the statements that free-hurning coals rapidly lose their heatments that free-hurning coals rapidly lose their heat-giving power on exposure, and that the alack of anthracite is worthless on the grates of a holier. The hook is apparently gotten up to he circulated gratuitously by those who have taken advertising space in it.

TRADE PUBLICATIONS.

(The standard sizes for pamphiets and trade catalogues recommended by all the principal engineering societies of the United Stales are: 31-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

LAUNDRY MACHINERY.—American Laundry Machinery Co. Cincinnati, O. Pampb.; 11 × 7¾ ins.; pp. 72.

This is a handsomely illustrated catalogue of all the machinery used in a modern steam laundry, including washing, drying, starching and ironing machines, hollers and engines, filters, ventilating fans, etc.

CEMENT MANUFACTURING MACHINERY.—The Jef frey Mfg. Co., Columbus, O. Pamph.; 7×6 ins.; pp 8; illustrated.

The larger portion of this pamphlet is taken up with a description of the combination separator, holter and screen for sifting cement. Many claims are made as to the especial efficiency of this machine.

FOUNDRY MACHINERY.—Whiting Foundry Equipment Co. Chicago, Ill. Pamph.; 6 × 9 ins.; pp. 52.

This catalogue llustrates a great variety of machines and appliances used in iron foundries, including cupolas, cranes, ladles, derricks, air hoists, cars, trucks, turntables, hrass melting furnaces, flasks, tumbling harrels, olding machines, etc.

TRACTION ENGINES AND AGRICULTURAL MACHIN-ERY.—Russell & Co., Massilion, O. Paper; 10½×7½ ins.; pp. 60. This firm does a large husiness in simple and tandem-

compound traction engines and portable engines for farm work, which are illustrated and described in detail. The catalogue also illustrates a variety of threshers, stackers and other agricultural machinery.

ELEVATING AND CONVEYING MACHINERY, Power Transmitting Machinery, etc.—The Aultman Co., Canton, O., Catalogue C, 1898. Pamph.; 5½ x 7¾ ins.; pp. 135.

This pamphlet is an illustrated catalogue and price list of elevators, conveyors, pulleys, shafting, hearings, rope drives, sprocket wheels, etc. It contain many illustrations showing practical applications of hoisting and conveying

CRUSHERS, PULVERIZERS AND SHREDDERS.—The Williams Patent Crusher & Pulverizer Co., St. Louis, Mo. Paper; 4½ x 6 ins.; pp. 36.

These machines act by a combination of abrasion and

These machines act by a combination of abrasion and percussion. On the shaft are a series of disks, having studs or holts on the face, from which are suspended steel hars, each of which has a free arc of movement of about one-third of a circle. After striking a hlow the hammer recoils, passing such of the material as is not shattered by the blow. The series of heavy blows reduces the material to powder. The machine has six sets of hammers, 13 to a set, and at 1,000 revolutions per minute the hammers strike 78,000 blows per minute. It has been used for grinding on clay, coal, oil cake, limestone and used for grinding on clay, coal, oil cake, limestone and other msterial, and for shredding tan hark.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING

Bids to be See Eng	Ċ.
opened. Work. Place. News.	Ī
Nov. 17. School huilding, Passaic, N. J	4.4
Nov. 17. Water-works, McComb, Miss	
Nov. 17. Bridge abutments, etc., Charlemont, Mass Nov. 1	ä
Nov. 17. Stone bridge, Napa, Cal	à
Nov. 17. Repairing asphalt, Scranton, PaNov. 1	ű
Nov. 18. Lighting fixtures. Omaha, Neh Nov. 1	ă
Nov. 18. Stone curh and gutter, Middletown,, O Nov. 1	i
Nov. 18. Pipe sewers, Etna, Pa	
Nov. 18. Building materials, Chemawa, Ore, Nov.	9.0
Nov. 19. Local sewers, Evansville, Ind	
Nov. 19. Wooden wharf, Washington, D. C Nov. 1	1
Nov. 19. Electric light plant, Concord, MassNov. 1	
Advertised, Engineering News, Nov. 10.	
Nov. 19. Snow dump, Chicago, Ill	d

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Nov.	19.	Pipe sewers, Coshocton, O
	19. 21	Brick paving, curh, etc., Council Bluffs, Ia.Nov. 17
Nov.	21.	Amhulance, New York, N. Y
Nov.	$\frac{21}{21}$.	Power plant, Ottawa, Ont
Nov.	21.	Concrete walka, etc., New Haven, ConnNov. 17
Nov.	$\frac{21}{21}$.	Brick and pipe sewers, Rankin, PaNov. 17
	04	Advertised, Eng. News, Nov. 17 and 24.
Nov.	$\frac{21}{21}$.	Macadamizing, Plainfield, N. J
Nov.	21.	Brick sewers, Toledo, OOct. 27
Nov.	21.	Pipe sewers, Coshocton, O. Nov. 17 Brick paving, curb, etc., Council Bluffs, Ia.Nov. 17 Collection of garbage, Woodmont, Conn. Nov. 17 Ambulance, New York, N. Y. Nov. 17 Power plant, Ottawa, Ont. Nov. 17 Heating, ventilating, etc., New York. Nov. 17 Concrete walka, etc., New Haven, Conn. Nov. 17 Brick and pipe sewers, Rankin, Pa. Nov. 17 Boilers and machinery, Detroit, Mich. Nov. 17 Advertised, Eng. News, Nov. 17 and 24. Macadsmizing, Plainfield, N. J. Nov. 10 Brick sewers, Toledo, O. Oct. 27 Naval supplies, St. Augustine, Fia. Oct. 27 Advertised, Eng. News Oct. 27 to Nov. 17 Government hidgs (S), Sophia, Bulgaria. Sept. 20 Paving, etc., Lynchhurg, Va. Nov. 17
Nov.	21.	Government hldgs (8), Sophia, BulgariaSept. 29
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		Advertised, Engineering News, Nov. 3.
Nov.	22.	Electric plant, Frederickshurg, VaNov. 10
Nov.	22.	Chemical engine, Jersey City, N. JNov. 17
Nov.	$\frac{22}{22}$.	Boilers (5), Boston, Mass
Nov.	23.	Sewers, Eikhart. Ind
Nov.	23.	Street honds, Rockville, Md
Nov.	23.	Street honds, Hyde Park, O
NUV.	<u>~0.</u>	Advertised, Engineering News, Nov. 17.
Nov.	$\frac{24}{24}$.	Sidewalks, etc., Kansas City, MoNov. 17
Nov.	25.	Water pipe, etc., Honoiulu, H. IOct. 27
Nov.	25. 25.	Rehuilding wall, New York, N. Y
Nov.	25.	Cleaning streets, Cleveland, O
Nov.	25	Sewer connections, etc., N. Soldiers' Home. Nov. 17
Nov.	26.	Court house, Danhury, Conn
Nov.	25.	Pipe sewers, Pontiac, MichNov. 17
Nov	96	Advertised, Engineering News, Nov. 17.
Nov.	26	Boat shelter roof, Mare Island, Cal Oct. 20
Nov.	28	Sawmill, chimney, etc., Mare Island, Cal., Nov. 3
M	00	Advertised, Eng. News, Oct. 27 to Nov. 17.
NOV.	20.	Advertised, Eng. News, Nov. 3 and 10.
Nov.	28	Sewers. North Bend. Ind
Nov.	28	Tubular boilers. (2), San Francisco, Cal Nov. 3
Nov.	28	Removing wreck, Portchester Harbor, N. Y Oct. 27
Nov.	28	.Tug hoat. San Francisco, Cal
Nov.	28	Mailing platform and shed, New YorkNov. 10 Advertised, Eng. News, Nov. 10 and 17.
Nov.	28	Street bonds, Weliston, O
Nov.	28	Boilers, machinery, etc., Detroit, Mich Nov. 17
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NOV.	20	Advertised, Engineering News, Nov. 17.
Nov.	29	Condenser tubes, Mare Island, Cal Nov. 10
Nov.	29	Drain tile. Philo, Ill
Nov.	29	. Water-works, Ft. Berthold, N. Dak Nov. 3
Nov	. 30	Electric plant, Danville, III. Nov. 17 Levee work, New Orleans, La. Nov. 17 U, S. huilding, Norfolk, Va. Oct. 27 Advertised Eng, News, Oct. 27 and Nov. 3 Bridge foundations, Washington, D. C. Nov. 3 Advertised, Engineering News, Nov. 3. Electric plant, Frederickshurg, Va. Nov. 10 Advertised, Eng. News, Nov. 10 and 17 Chemical engine, Jersey City, N. J. Nov. 17 Boilers (5), Boston, Mass. Nov. 17 Hospital huildings, Brooklyn, N. Y. Nov. 17 Sewers, Elkhart, Ind. Nov. 10 Buildings, Buffalo, N. Y. Nov. 17 Street honds, Rockville, Md. Nov. 17 Street honds, Rockville, Md. Nov. 17 Street honds, Hyde Park, O. Nov. 17 Park work, Newark, N. J. Nov. 17 Sidewalks, etc., Kansas City, Mo. Nov. 18 Brick sidewalk, Huntington, W. Va. Nov. 10 Rebuilding wall, New York, N. Y. Nov. 10 Rebuilding wall, New York, N. Y. Nov. 10 Rebuilding wall, New York, N. Y. Nov. 10 Portable pump, Cleveland, O. Nov. 10 Portable pump, Cleveland, O. Nov. 17 Court house, Danhury, Conn. Nov. 17 Carane, Port Royal, S. C. Oct. 27 Boat shelter roof, Mare Island, Cal. Nov. 17 Crane, Port Royal, S. C. Oct. 27 Boat shelter roof, Mare Island, Cal. Nov. 3 Removing wreek, Port Chester, N. Y. Nov. 3 Advertised, Engineering News, Nov. 17. Crane, Port Royal, S. C. To Nov. 17 Water-works, Florence, Colo Nov. 3 Removing wreek, Port Chester, N. Nov. 10 Advertised, Eng. News, Nov. 3 and 10. Nov. 3 Removing wreek, Port Chester Ilarbor, N. Yov. 10 Advertised, Eng. News, Nov. 3 and 10. Nov. 3 Removing wreek, Port Chester Harbor, N. Yov. 10 Advertised, Eng. News, Nov. 3 and 10. Nov. 17 Court house, Danhury, Colo. Nov. 17 Court hous
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RAILWAYS.

ALABAMA.—Dunn & Lalande Bros. who have the contract to grade the right of way for the new rallway to be built for the Pioneer Mining & Mfg. Co., from its furnaces at Thomas, Ala., to North Birmingham, where a new mine is being opened, began work on their contract Nov. 7.

Thirty teams are at work and it is expected that the 4½ miles of road will be graded and trestles hull within 60 days; estimated cost, \$50,000.

miles of road will be graded and trestles huilt within 60 days; estimated cost, \$50,000.

ALLEGHENY VALLEY.—Plans are under consideration for the general improvement and enlargement of the yards of this company at 16th and Pike Sts., Pittsburg. Pa., the work to hegin early next spring. The Low Point tunnel, 700 ft. in length, on the low grade division, is now being arched; the stone foundations for the arch have just been completed. D. McCargo, Gen. Supt., Pittsburg, Pa.

ARKANSAS & CHOCTAW.—W. H. Carson, Supt., Texarkana. Ark., is quoted as stating that grading has been completed on this road to a point 12 miles from the Arkansas line. The length of the route at present is 51 miles, and extends from Ashdown to Choctaw City, Ark.; the proposed extension is towards Anoka, Ind. Ter., where a connection will be made with the Missouri, Kansas & Texas Ry.

ATLANTIC COAST LINE.—We are informed that Ahercrombile & Williams, Montgomery, Ala., and not the A. & C. Wright Co., as stated in our last issue, have been awarded the contract for constructing the extension of the Charleston & Western branch from Denmark to Robbins, S. C., 34.7 miles, including all the earth and treatle work. F. Gardner. Ch. Engr., Charleston, S. C. Ahercrombile & Williams also inform us that they will have the work covered by Dec. 1.

BALTIMORE & OHIO SOUTHWESTERN.—Reports state that this company has begun its proposed series of improvements by heginning the laying of 5.000 tons of S5-pound steel rails hetween Chillicothe, O., and Parkershurg, W. Va.

BELLAIRE. ZANESVILLE & CINCINNATI.—As a result of the oil hoom in this section of Ohio, this company is said to contemplate the changing of its road to standard gage between Woodfield and Bellaire, a distance of about 25 miles. J. K. Geddes, Recr. and Gen. Mgr., Zaneaville, O.

Zaneaville, O.

CAPE FEAR & NORTHERN.—J. M. Bandy, Ch. Engr.
Greenshoro, N. C., Informs us that surveys have been
completed for 20 miles and the right of way secured
Gibson & Carpenter, of Holly Springs, N. C., have graded
14 miles of the line and laid three miles of track; they
expected to be at Holly Springs on Nov. 12. Work is being
rapidly pushed between Anex and Williams, via Holly
Springs and Blanchards, 20 miles. The length of completed line will prohably he 150 miles. Pres., B. N. Duke,
Durham, N. C.

Durham, N. C.

CHICAGO, FORT MADISON & DES MOINES.—Press reports atate that this line will be sold at Keokuk, Ia...

Jan. 5, under a decree of foreelosure brought by the American Loan & Trust Co., of Boston.

CHICAGO ST. LOUIS & TEXAS AIR LINE.—Reports state that the right of way has been obtained for this pronosed reliway from San Antonio to Brownsville. Tex., a distance of 280 miles, and that propositions to construct the line will now be considered. Pres., D. Griffin Gunn, San Antonio, Tex.

San Antonio, Tex.

CHOCTAW & MEMPHIS.—We are informed that hids were to be onened on Nov. 11. and awarded Nov. 12. for the construction of this company's line from Howe, Ind. Ter., to Little Rock Ark., a distance of 164 miles. F. A. Molitor, Ch. Engr., Little Rock, Ark.

COLUMBIA & WESTERN.—Press reports state that 5,000 men are now at work on the construction of this proposed branch of the Canadian Pacific system from Robson through the Gold Range mountains to Midway. B. C., a distance of 105 miles. No track has yet been laid. This undertaking is said to be one of the heaviest and most difficult pieces of work in the Northwest. There will be 5,300 ft. of tunnels, requiring the removal of about 66,000 cu vde. of material, and numerous bridges and trestles. Foley Bros. & Larson are the contractors.

COLUMBUS, LIMA & MILWAUKEE—The contract for.

and trestles. Foley Bros. & Larson are the contractors.

COLUMBUS. LIMA & MILWAUKEE—The contract for ties. track-laying, ballasting etc., on this line from Lima to Defiance, via Gomer and Continental, O. a distance of 40 miles, is reported to have been awarded to A. Brown. Ottawa, O. The rails will be sunplied by the Johnson Steel Co., Lorain, O. Part of the roadbed and the bridges for this railway were built eight vears ago, and have since lain idde. Pres. J. G. W. Cowies, of the Cleveland Trust Co., Cleveland, O.

DENVER & RIO GRANDE.—Reports state that the Veta Pass route of this line will soon be made standard gage as far as Alamosa, Colo. M. H. Rogers, Ch. Engr., Denver, Colo.

DIJLITH MISSISSIPPI RIVER & NORTHERN—Re-

Colo.

DULUTH, MISSISSIPPI RIVER & NORTHERN.—Reports state that this company will soon commence surveys for the location of a new line from Hibbing. Minn., to the Canadian boundary and that it will build into Duluth, within a year. I. N. Gray, Ch. Engr., Swan River Minn. Minn

River, Minn.

FOURTH POOL CONNECTING.—This company was incorporated in Pennsylvania, Nov. 7, with a capital stock of \$150.000 to construct a steam railway between Charlerol and Jefferson township. Favette county, Pa. The incorporators are: Samuel A. Roelofs, Pres., and H. P. Richardson, both of Ellwood City, Pa.; Albert McNamee, McKees Rocks, Pa.; Jos. F. Ryan and Chas. F. Patterson, of Pittshurg.

GALVESTON I.A PORTE & HOUSTON.-L. J. Smith, 313 American Bldg., Kansas City, Mo., has bought this Texan railway, and intends to extend it in a northerly direction.

direction.

GREAT EASTERN.—I. H. McCleary Gen. Mgr., Suffolk, Va., informs us that contracts will be let in December for the construction of this proposed line from Selma to Leechville, on the Pungo River, via Snowbill, Lizzle, Winterville, Washington, Pantego and Friffield. N. C., a distance of 130 miles. Surveys have been completed and the right of way and capital about secured. Pres., J. W. Lynch, Kinston. N. C.; Ch. Engr., E. F. Hurt, 41 West 74th St., New York.

GULF. BEAUMONT & GREAT NORTHERN.—Jas. F. Weed, Ch. Engr., Beaumont Tex., informs us that a preliminary survey has fust been completed on this line from Beaumont to Waskom, Tex., and the location of the same made from Waskom to Jefferson. The total distance from Beaumont to Jefferson is 210 miles. JAMESTOWN TERMINAL—This company was incorporated in New York, Nov. 9. with a capital stock of \$50,000, to construct one mile of steam railway in Jamestown, N.Y. The directors are John W. Douhleday, of Jamestown, and others.

others.

LOUISIANA, NORTH & SOUTH.—Reports state that this compary has been incorporated to construct a rail—rom New Orleans, La., to Fort Smith. Ark., via Arcadia and Hot Springs, a distance of 325 miles. A. La. Atkins, Vice-Pres., Arcadia, La.

MICHIGAN.—Reports state that the Mohawk Mining Co. has ordered steel for the extension of the Traverse Bay Ry., and will complete the line before winter. A new stamp mill, costing \$150,000, will he built on Lake Superior, taking water from Tobacco River.

NORTHERN MICHIGAN.—C. A. Wright. of Hancock, Mich., is interested in a new line of rallway to be built from Calumet to Watersmeet, Mich., a distance of about 50 miles, connecting with the Chicago & Northwestern Ry. at the latter piace. The final survey will be made soon and construction work begun in the spring.

NOVA SCOTIA.—At a recent meeting of the ratepayera of Amherst, N. S., it was decided to grant a subsidy towards the construction of a rallway from Amberst to North Port, on the Northumberland Straits, a distance of about 20 miles, which will open up coal and agricultural districts.

PITTSBURG, BRADY'S BEND & LAKE ERIE.—Harwood R. Pool, Secy., 62 Cedar St., New York, informs ua that all the surveys bave been made and one-third of the right of way obtained for this proposed line from Brady'a Bend to Butler, Pa., a distance of 20 miles. Not all of the capital necessary for construction bas yet been accured. Pres., Joseph Pool, New York; Cb. Engr., J. D. Haggerty, East Brady, Pa.

cured. Pres., Joseph Pool, New York; Cb. Engr., J. D. Haggerty, East Brady, Pa.

ST. LOUIS, PEORIA & NORTHERN.—The Laclede Construction Co., St. Louis, Mo., is reported to have been awarded the contract for the construction and equipment of a branch of this line from Clinton to Chicago, via Peoria, Ili., requiring about 250 miles of new track, to he known as the St. Louis & North Shore Line. Pres., W. E. Guy, St. Louis, Mo.

SANDYVILLE & WAYNESVILLE.—This company has been incorporated in Ohio, with a capital stock of \$50,000, to construct a railway from Waynesville to a connection with the Cleveland Terminal & Valley R. R. at Sandyville. The directors are F. H. Goff, C. H. Gale, F. H. Bushnell, John H. Smart, John E. Morley.

SHREVEPORT & RED RIVER VALLEY.—Contracts will be let on Nov. 20, according to reports, for the construction of an II-mile extension. Work is expected to becompleted to Campit, La., by Dec. I. Clarence Ellerbe, Pres. Louislana Construction Co., Shreveport, La.

TALLAHASSEE & SOUTHEASTERN.—The first aection of this new line has been completed as far as the Wacissa River, 20 miles from Tallahassee, Fia. It is expected to build turther to Old Town, on the Suwanee River, a distance of 101 miles, where it will meet the Atlantic, Gulf & Suwanee River R. R. now in course of construction from Starke southeasterly. R. L. Bennett, Vice-Pres., Tallahassee.

TEXAS MIDLAND.—The Crancy Construction Co., Paris, Tex., is reported to have been availed the text.

Tallahassee.
TEXAS MIDLAND.—The Craney Construction Co., Paris. Tex., is reported to bave been awarded the contract for the construction of the proposed Wace extension of this line, work to begin about Jan. 1. M. Duvail. Ch. Engr., Terrell, Tex.

WASHINGTON RUN.—Taylor & Romine, McKeesport, Pa., inform us that surveys have been made, the right of way and capital secured for constructing this proposed line of steam railway from Layton to Star Junction, Fayette county, a distance of five miles. Bids were closed Nov. 12. Pres. W. Harry Brown, Conestoga Bidg., Pittsburg, Pa.; Ch. Engr. E. J. Taylor, McKeesport.
WATERVILLE & WISCASSET.—President Thayer has been instructed to sign a contract for the construction of this line, with the Kennebec Construction Co., to cost about \$260,000.

\$260 000.

WYOMING & GRUNDY.—This company has been organized in California with a capital stock of \$500,000, to construct a standard gage railway from a point on the Norfolk & Western Ry., near the mouth of Buil Creek, in McDowell county, W. Va., to Grundy, Va., 50 miles. The directors are: R. L. Beardslee, John M. Bonner, Herman de Laguna, E. E. Forrest, and Samuel H. Cohn, all of Stockton, Cal. S. D. Fresbman, Secy. of the Sierra Co., is the treasurer.

STREET AND ELECTRIC RAILWAYS

BELFAST, ME.—Reports state that James Mitchell, a rall-ray contractor and promoter of Bangor, Me., will build bout five miles of electric rallway in the spring, between elfast and Northport.

about five miles of electric failway in the spring, between Belfast and Northport.

HAMPTON, N. H.—Soule, Dill'ingham & Co., Boston, Maas, are said to have been awarded the contract for the construction of the Hampton & Amesbury St. Ry., from Hampton through Hampton Falls and Seahrook to the state line, connecting with the Newburyport & Amesbury Ry., by a short link to be built. The new line will be operated by the Exeter Ry. Co.

SALISBURY, VT.—W. T. Dewey, E. D. Blackwell, of Montpelier, Vt., are among the proposed incorporators of the Lake Dunmore Power & Traction Co., which contemplates the construction of a railway through Salisbury, Leicester, Brandon, Pittsfield and Proctor to Rutland.

DEDHAM, MASS.—Work was begun on the construction of the Norfolk Western St. Ry., on High St., Nov. 7. The proposed route is from Modfield to Dedham, via Westwood, nine miles. Pres., W. W. Mitchell, Medfield, Mass.; Engrs., Hodges & Harrington, 60 State St., Boaton.

NEEDHAM, MASS.—The selectmen have granted a franchise to the Needbam & Boston St. Ry. Co. to lay tracks and operate a line of electric street cars between Postoffice Square and the Dedbam town line, via Great Plain, Dedbam and Harris Aves. The road must be in operation by June 1, 1899.

by June 1, 1899.

NEW REDFORD, MASS.—Reports state that the New Bedford, Middleboro & Brockton St. Ry. Co. was granted a franchise, Nov. 9, to construct and operate its I ne on the county road between the termination of the Union St. vy. tracks at Lunds corner and the Freetown line. Work is to be completed before next June, A. P. Smith, of New Bedford, and Fred. C. Hinds, Newton, Mass., are members of the company.

of the company.

TAUNTON, MASS.—The Taunton & Middleboro St. Ry. Co, has been organized, with a proposed capital stock of \$55,000, to construct a street railway from the terminus of the East Taunton St. Ry., in Taunton, through Lakeville, to the location of the New Bedford, Middleboro & Brockton St. Ry., a distance of 5½ miles. The directors sre Fred. C. Hinds, Newton; A. M. Bearae, Middleboro; A. P. Smith, New Bedford, and others.

are Fred. C. Hinds, Newton; A. M. Bearae, Middlebord; A. P. Smith, New Bedford, and others.

WHITMAN, MASS.—Waldo Dyer, P. O. Box 566, Whitman, informs us that nothing will be done this winter towards building the proposed railway of the Old Colony St. Ry. Co., except to complete the organization of the company. The filne will be about 12 miles in length, through a fine country, covering several coach lines, and will probably be built early next year.

NEWPORT, R. I.—The Newport St. Ry. Co. has petitioned the council for permission to extend its tracks from Broad-theound Mariborough St. to the Old Colony R. R. station, etc. Pres., G. B. Reynolds, Spring and Franklin Sts. NEW PAVEN, CONN.—It is reported that the Fairhaven & Westville R. R. Co. contemplates the extension of its lines to Seymour. Pres., H. S. Parmelee, 730 Chapel St. WILLIMANTIC, CONN.—Report state that a syndicate represented by Jease W. Starr, of New York, has purchased the franchise for the proposed street railway in this town, and that the construction of the line at an early date is now assured.

NEW ROCHELLE, N. Y.—The Westchester Electric R. R. Co., controlled by the Union Ry. Co., 128tb St. and 3d Ave., New York, has filed with the secretary of state, at Albany, a certificate of an extension of its lines in this

PASSAIC, N. J.—We are informed that the directors of the Saddle R ver Traction Co. met, at Passaic, N. J., Nov. 11, and awarded the contract for the construction of the proposed railway from Passaic to Lodi. The line will be double track and will be operated as an extension of the Paterson Ry. Engr., Colin R. Wise, Passaic National Bank Ridg. Passaic Paterson Ry. Bidg., Passaic

Bidg., Passaic.

PiTTSTON, PA.—The Pitiston & Scranton St. Rv. Co. was incorporated, Nov. 7, with a capital stock of \$75 000, to construct an electric street railway from Pitiston to Scranton a distance of three miles. The incorporators are: Jas. A. Steese, Pres.; Chas. H. Mullin and D. A. Dunievy, of Mount Holly Springs, Pa.; Lane S. Hart and W. H. Metzger, of Harriaburg, Pa.

WAYNESBORO, PA.—The Blue Ridge Electric Ry. Co, has been organized by August Beck and J. Reliy Weaver, of Baltimore, Md.; Peter Rouzer, Rouzersville, Pa.; and others for the construction of a line connecting Waynesboro, Pen-Mar, Blue Mountain House, Monterey and Buena Vista.

Vista.
YORK, PA.—Report state that the York Southern R. R. will convert its lines, covering 37 miles, into a trolley system. Ch. Engr., S. M. Manifold, York.
LEXINGTON. VA.—Reports state that John R. Williams, of Richmond, Va., and owner of Hotel De Hart. contemplates the construction of an electric street railway to the hotel, which is in the suburhs. Engr., A. L. Johnston, of Richmond.

LYNCHBURG, VA.—The Lynchburg & Rivermont St. Ry, Co, has been granted a franchise to build a line to the Durham station and City Park, via 12th St. Pres. and Mgr., II. P. Woodson, 812 Church St.

Durham stat'on and City Park, via 12th St. Pres. and Mgr., II. P. Weodson, 812 Church St. VICKSPURG, MISS.—E. C. Collins, Supt. of Construction of the North American Ry. Construction Co., Chicago, Ili., has commenced the construction of the Vicksburg Electric St. Ry. The present contract is for the construction of four miles of track, using 60-lb. rails.

CHATTANOOGA. TENN.—Surveys are now under way and plans being prepared for the extension of the narrow gage railway on Lookout Mountain to Rock City, Lookout Inn and other points of interest. L. E. Montague, Pres. of Lookout Incline & Lulu Lake Ry. Co.

EAST LIVERPOOL, O.—A syndicate composed of Chicago, Philadelphia and New York capit-lists is said to propose the construction of an electric freight railway between this city and Lisbon, connecting the Eric system with the Ohio River at this noint. A bonus of \$60,000 is asked of East Liverpool, and of \$25,000 of Lisbon. J. L. Francis, of Chicago, is reported interested.

LEXINGTON, IND.—Press reports state that Beniamin Johnson, the engineer who built the Madison Electric St. Ry, has been engaged by Enoch H. Fudge and other Chicago capitalists to examine into the feasibility of constructing an electric railway from Lexington on the Paltimore Ohio R. R. through Hanover and Madison to Vevay, a distance of 40 miles.

HOUGHTON, MICH.—The council has granted a franchise for a street railway through this village to Wm H. Taylor, of New York, according to reports, provided that enough franchise be secured to build a belt line about the county connecting Houghton, Hancock, Quiney, Franklin, Dollar Bay, Lake Linden, South Lake, Linden, Laurlum, Calumet and Red Jacket; a d'atance of about 20 miles.

OWOSSO, MICH.—Reports state that a party of Detroit cantialists has taken the initiative toward getting a franchantialists has taken the initiative toward getting a franchantialists has taken the initiative toward getting a franchantialists.

county connecting Houghton, Hancock, Quincy, Franklin, Dollar Bay, Lake Linden, South Lake, Linden, Laurlum, Calumet and Red Jacket; a distance of about 20 miles.

OWOSSO, MICH.—Reports state that a party of Detroit canlialists has taken the initiative toward getting a franchise in this city and Corunna for an electric railway which will combine with the interurhan'rond now running from Detroit to Sylvan Lake.

CHICAGO, ILL—The United Traction Co. was incorporated at Springfield, Nov. 7, with a capital stock of \$500.000, by Aihert E. Wilson, Anson F. Meanor and L. J. Bean, 508 Stock Exchange Bidg., Chicago.

KANSAS CITY, MO.—A franchise has been granted by the county court to the Jackson County Electric Ry, Co for the construction of a double track electric railway on Prospect Ave. from the city limits to Dodon and Swope Park, about five miles. The company is under \$1,000 bond to have the road in operation within one vear. The incorporators of the company and also of the Missouri Electric Ry, Co. will operate the city end of the line; it was incorporated a month ago. A power house to cost about \$40,000 will be erected at Brush Creek and Prospect Ave. EDASO, TEX.—B. F. Hammett, Leigh Clark, J. J. Taylor and others are said to have been granted a franchise for an electric ráilway and electric l'ight plant in this city.

PORTLAND, ORE.—An ordinarce has been passed granting a franchise to the City & Suburban Ry, Co. to construct and operate a tramway on 22d St. from Savior St. to St. Helena County Road. Pres., H. Failing, 3d and Yamhili Sts.

LOS ANGELES, CAL.—Reports state that electricity as a motive power will be installed on the Glendale branch of the Los Anseles Terminal Ry, within 90 days. The Pasadena line will probably be equipped in the same manner as soon as the franchise can be secured. T. E. Gibbon, Vice-Pres, and Gen. Mgr., Los Angeles.

OTTAWA, ONT.—The city has taken setion to compel the Ottawa Electric Ry. Co. to extend its Elgin St. line to the exhibition grounds. Pres., J. W. McRae, 337 Albert St.

CAMPECHY, MEX.—Press reports state that a street ilway line is to be built in this city; population, about

CHIHUAHUA, MEX.—It is positively stated that the Chihuahua capitalists will construct an electric railway in this city of 12,000 inhabitants.

in this city of 12,000 inhabitants.

MEXICO, MEX.—An entire new roadbed is now being constructed in this city for the new ayatem of electric traction: it is expected to lay 26 miles of 85-lb. rails as soon as possible. The nower house will contain three boilers of the Babcock & Wilcox type and three McIntosh & Seymour engines: the nominal horse power of the plant is calculated at 1 200. The General Electric Co. will furnish the electrical plant, the cars being equipped with 70-HP. motors. The J. G. Brill Co., of Philadelphia, is also said to be constructing 30 cars for the line.

HAVANA, CUBA.—Press reports state that the entire street railway system of Havana, about 25 miles in length, has been sold to an English stock company for \$1.600 000. The motive power will prohably be changed from horses to

TOKIO, JAPAN.—It is announced that the International Air Power Co., owning the Hoadley-Knight compressed air

system for foreign shipment, has just closed a with Fraser & Co., 63 Wall St., New York, an bama, for compressed air street cars to he instruction.

VIENNA, AUSTRIA.—The Siemens & Halske Ele-of Chicago, is reported to have been awarded a co-install electricity on the tramway systems of Vien-ering about 100 miles of road.

ELECTRIC LIGHT AND POWER

BRANDON, VT.—E. D. Blackwell, Montpeller, Brandon, writes us that bids will probably be about Dec. 1 for furnishing the materials and for coing the proposed water-power plant, to cost about The plant will have 375-ft. head. 1.200 HP. There a 1.000-HP. impulse wheel, 600-K-W. alternating ge 3,000 ft. of steel penstock, transformers, to step-ul ovolts and back to 2,000 voits; 65,000 lbs. of wire, etc.

wire, etc.

SANDY HILL, N. Y.—The Sandy Hill Electric Light Co. is considering estimates for additional arc and lacendes, etc. the same set dynamos, according to reports. J. E. Howland, Pres. H. P. Galley, Supt.

SENECA FALLS, N. Y.—Press reports state that Mr. H. H. Crowell, of Syracuse, N. Y., bas been appointed receiver for the Seneca Electric Light & Power Co. embracing the plants at this place and Waterloo. The action was brought about by the Old Colony Trust Co., of Boston, as trustees of the company's bonds.

CAMDEN, N. J.—The council is reported to have granted a franchise to the Citizens Light, Heat & Power Co.

Co.

PHILADELPHIA, PA.—The Southern Electric Light & Power Co. proposes to increase its capital stock from \$400,000 to \$2,000,000. It is stated that the company will enlarge its plant. A meeting to decide the question will he held Nov. 23. Wm. J. Manning, Secy.

PHILADELPHIA, PA.—H. Brockelhurst, Philadelphia has the contract for building an addition to the power house of the plant of the Midvale Steel Co., at Nicrtown. The addition will be 30x115 ft.

The addition will be 30x115 ft.

PITTSBURG, PA.—G. H. Wins'ow. 339 Fifth Ave., Pittshurg, is preparing plans and specifications for an electric
light plant in this vicinity for a manufacturing company.

READING, PA.—Geo. Hensher and Michael McDonough
are reported as considering estimates for a plant for the
building of the St. Peter T. A. B. Society.

WRIGHTSVILLE. PA.—Wm. A. Chapman & Co., 40
Westminster St., Providence, R. I., have been awarded
the centract for the development of power, including
the building of a concrete dam and power-house on the
Susouchanna River. Wrightsville, for the Martic Water
& Power Co. In our issue of Nov. 3 we incorrectly reported that this contract had been let to the Water
Bradlev Construction Co., Oswego, N. Y.

PENNSBORO W. VA.—The Collins Co., writes us that
the company wants to purchase a plant of about 100 16-c.
incandescent lights for the mill, and also an engine to run
the same.

CHESAPEAKE BEACH, MD.—It is stated that a cit-

the same.

CHESAPEAKE BEACH, MD.—It is stated that a site has been located for the plant and the water-works at the Beach for the Chespreake Beech Ry. Co., Washington, D. C. Geo. Cadogan Morgan, Engr., Sos Royal Insurance Bidg., Chicaro, Ill.; Otto Mears, Pres., Washington, HAGERSTOWN, MD.—Mayor Edwin M. Schindel writes us that the matter of a plant and a sewerage system are in the hands of the committees. No definite action will be taken for some months. Charlea Webb, Chn.

WILLIAMSPORT, MD.—D G. Adelsberger, 722 Pennsvivania Ave., Baltimore, Md., is preparing plans for a plant and water-works for this city.

PENNSBORO, W. VA.—The Collins Co. is reported as warting estimates for a plant of 100 16 c.p. incandescent lights.

wantin

DECATUR, ALA.—R. D. Smith. of a Birmingham company, is reported as making an effort to accure permission to build a plant here.

to build a plant here.

THIBODAUX, LA—This place voted Nov. 8 to issue bonds for a plant. F. Zermott, Mayor.

SOMERVILI.E. TENN.—Bids are asked until Dec. 1 for furnishing and installing a plant and water-works, to cost about \$10,000. The plant will have a capacity for furnishing about 15 2,000 c.p. are and 750 16 c.p. incandescent lights. Geo. C. Morgan, Engr., 808 Royal Irsurance Bldg., Chicago; W. D. Seruggs, Chn. Com.; E. R. Seruggs, Recdr.

Reedr.

LIMA. O.—We are informed that this city proposes to either build a plant or let a contract for about 300 are lights. J. K. McClurg, Chn. Com.

MILFORD, O.—It is stated that the council is considering the question of granting a franchise.

NEW RICHMOND, O.—H. Buckley, Pres, Electric and Water-Works Trustees, writes us that plans and specifications for a plant and water-works will be completed soon and that hids will probably soon be asked. J. F. Witmer, Des. Engr. 705 Ellicott Square, Buffaio, N. Y.; Chas. R. Day. Cy. Clk.

PERRYSVILLE. O.—E. H. Vandersilce writes us that it

CARO, MICH.—We are informed that bids will be asked next spring by the Caro Light & Power Co., just incorporated for building a water and state by the Caro. WOSTER, O.—W. E. Lee writes us that the city has made a contract with the old company and will therefore not build a plant, as has been reported.

CARO, MICH.—We are informed that bids will be asked next spring by the Caro Light & Power Co., just incorporated, for building a water and steam power plant, to cost about \$25,000, O'Keefe & Orbison, Engrs., Appleton, Wia, J. H. Harris may be addreased.

KALAMAZOO, MICH.—The Kalamazoo Electric Co. has been granted permission to extend its plant, erect towers and make a number of other important improvements to its plant. Work is said to have already heen begun.

LANSING, MICH.—The committee has recommended

LANSING, MICH.—Local papers state that a company is organized to business portion of the city. C. P. Downey, of Downey's Hotel, and J. J. Baird are interested.

DANVILLE, ILL.—Bids are asked until Nov. 2I for fur niahing the materials and for building a municipal plant E. R. E. Kimhrough, Mayor; E. E. Boudinot, Chn. Com.

UPPER ALTON, ILL.—The viliage hoard is reported to ave decided to change, the public lighting from are to

or the committee is considering the question of hullding a plant. Population 6000. Henry Kolsched. Chn.: W. H. Kamps and P. J. Kraus are on the committee.

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IDAH R. Specione, of Midland plant P place. plants. be asked 5,000 H DAVE Vash., Wash., Wilhur. SAN dino El CAMI HALI heen d The co to huli MAGG the pro the plan MON' cal Eng \$30,000 treal, f apparate ORIL nishing sion placensist two of transfo construerating cluding \$75,000 319 Te OTTA STANDARD LOCKS, Canai, L. K.

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HOO tract lat \$2. NEV

SUN PRAIRIE, WIS.—C. B. Hayden writes us that aome dids for a plant have already been received. The plant fill have a 50 HP. engine, 60 to 75 HP. boiler, a 350 to 600-light dynamo, etc. The wire has already been received; estimated cost of plant, \$4,000.

WARRENS, WIS.—The Geo. Warren Co. bas let the contract for a 300 incandescent light plant to Thos. Benson Sons, of La Crosse, Wis.

WARRENS, WIS.—In Good. Warren Co. das let the contract for a 300 incandescent light plant to Thos. Benson & Song, of La Crosse, Wis.

E. GRAND FORKS, MINN.—Bids are asked until Dec. 1 for furnishing the materials and for building a plant and water-works, according to reports. W. I. Gray & Co. Engr., Sykes Bidg., Minneapolia, Minn.

WINONA, MINN.—W. L. Raymond, Pres. Council, writes us that the committee is investigating the question of a municipal plant; it will report by Jan. 1. F. E. Gariside, Pres. Com.

OMAHA, NEB.—Bids are asked until 2 p. m., Nov. 18. for furnishing and placing combination gas and electric lighting fixtures in the court house and postoffice building of this city. O. L. Spaulding, Acting Secy., Treasury Department, Washington, D. C.

CARTHAGE, MO.—The question of issuing \$25,000 in bonds for a city plant will be voted upon Nov. 22. The present light contract expires in August.

ST. LOUIS, MO.—Local papers state that it is probable that the board of public improvements will send an ordinance to the municipal assembly providing for a municipal electric plant. President McMath has expert assurances that such a plant could be erected by Jan. 1, 1900, when the present contract expires. The board is forced to this alternative by the persistency of the council turns down the municipal ordinance then the board will have to let a temporary contract.

WYNNE, ARK.—M. Jolly, Secy., Bd. of Improvements writes us that G. Jacger, Batesville, Ark., was awarded the contract Nov. 10, at \$15,490, for building a plant and water-works.

water-works.

EL PASO, TEX.—B. F. Hammett, Leigh Clark, J. J. Taylor and others have been granted a franchise for a light plant and street railway, according to reports.

IDAHO SPRINGS, COLO.—Press reports state that Aug. R. Specht, 24 Devonshire St. Boston, Mass.; H. P. Malone, of Cleveland, and A. H. Johnson, Pres. Arkansas Midland R. R. Co. Helena, Ark., are Interested in a power plant project on Clear Creek, several miles from this place. It will be used for furnishing power to mining plants. Right of way has been bought. Bids will soon he asked for furnishing machinery for developing, for 5,000 HP.

DAVENPORT. RT, WASH.-R. H. Robinson, Arlington, stated, will build plants at this place and at

SAN BERNARDINO, CAL.—The plant of the San Bernar-lno Electric Co. is to be extended, according to reports. CAMPBELLTON, N. B.—Duncan & McLellan, Campbellon, have been awarded the contract for a plant for this place, at \$12,950.

HALIFAX, N. S.—The city engineer is reported to bave een directed to prepare plans for a municipal plant. the committee estimates that it will cost about \$5,335 b build the plant and \$18,925 a year to maintain and

The committee estimates that it will cost about \$54,335 to build the plant and \$18,925 a year to maintain and operate it.

MAGOG, QUE.—W. W. Chaimers, Mayor, writes us that the proposed issue of bonds is to pay for the additions to the plant already made.

MONTREAL, QUE.—Prof. R. B. Owens, of the Electrical Engineering Dept., McGill University, writes us that \$30,000 has been donated by W. C. McDonald, of Monreal, for the re-equipment of the department. The new apparatus includes direct and alternating current machinery, batteries, measuring instruments, etc.

ORILLIA, ONT.—Bids are asked until Nov. 30 for furishing the materials and for huilding a power transmission plant at a point on the Severn River. The plant will consist of the following: Alternating current generators, two of 300 k.w. capacity each; step-up and step-down transformers, 600 k.w. capacity; transmission line and construction, 18 miles; switchboard equipment, for generating and recelving stations; hydraulic machinery, including masonry construction. The plant will cost about \$75,000, as stated last week. R. J. Parke, Elec. Engr., 319 Temple Bidg., Toronto, Ont.; C. J. Miller, Chn. Com.

OTTAWA, ONT.—Bids are asked until Nov. 21 for installing a power house and electric plant for operating the locks, bridges and other structures along the Soulanges Canai, and also for lighting the canal its entire length. L. K. Jones, Secy., Dept. Rys. & Canals, Ottawa.

TORONTO, ONT.—The Anglo-American Electric & Supply Co., among others, submitted a proposition to the board of control Nov. 9 offering to supply electric power to light the city streets and supply energy for manufacturing purposes at the rate of 1 ct. a borse-power per hour. Its capital will be \$5,000,000, and when the dividends reach 10% it offers to light the streets at cost price. It will also establish a manufactory for electric supplies, and the profits of this will come under the same agreement. The proposed plant will cost about \$1,000, 000, exclusive of site and wiring. G. P. Magann, Dr

CHARLEMONT, MASS.—Bids are asked until Nov. 17 or constructing stone abutments and wing walls for a ridge. T. C. Mendenhall, Chn. Massachusetts Highway omn., Boston.

hridge. T. C. Mendenhall, Chn. Massachusetts Highway Comn., Boston.

WOONSOCKET, R. I.—Frank H. Mills, Cy. Engr., writes us that the proposed work at the Globe bridge consists of tearing down one stone arcb and constructing a longer and wider one in its place, the extension of another stone arcb, the widening of the street and the building of heavy retaining walls, with the necessary excavation, filling, etc.; estimated cost, \$34,600. The work will not be done this year, and perhaps not next.

BUFFALO, N. Y.—The grade crossing commission has approved the plans submitted by Engineer Guthrie for a subway at South Division St., and for a bridge at Elk St. and Abbot; Road. It is proposed to let the contracts early next spring.

CANASTOTA, N. Y.—Plans have been prepared by the state engineering department, Albany, for a bolist bridge over the Eric Canal at Peterborough St. A copy of the plans are on file at the office of Village Clerk Bell.

HOOSICK FALLS, N. Y.—The town board awarded a contract Nov. 13 to the Massillon Bridge Co, of Massillon, O., at \$2,728, for constructing six small bridges.

NEW HACKENSACK, N. Y.—The town board of Wappingers has awarded a contract to the Groton Bridge & Mig. Co., Groton, N. Y., at \$1,095, for constructing a steel bridge 50 x 20 ft.

SYRACUSE, N. Y.—Reports state that \$4,000 has been ppropriated for the removal and placing of the old swing ridge over the Oswego Canal, at the foot of Butternut St. he city clerk has heen authorized to ask hids. Russell R.

tuart, Cy. Engr.

NEWARK, N. J.—Jas, F. Kelly, Townsbip Clk., Arlingon, N. J., informs us in regard to the report of Engineer Fritcher, on the dangerous condition of the bridge over the Frie R. R. at Kearney Ave. and 4th St. The structure is 140 × 20 ft., and has st present a capacity of 35 lbs. per 4, ft. No plans have yet been made. The township compiltee is trying to compel the Erie R. R. Co. to put this ridge in suitable condition. The matter is in the hands of the Grand Jury.

FRANKSTOWN, PA—The Baltimore & Obto R. R. Co.

FRANKSTOWN, PA.—The Baltimore & Ohio R. R. Co. will construct a bridge across 2d Ave., for the extension of a track, which is now being bull; to encircle the Pennsylvania Tuhe Works, to cost about \$15,000, according to reports.

JACKSON, MISS.—The council has suthorized the nace of \$18,400 of bonds for building bridges, according

reports.

SOMERVILLE, O.—L. A. Dillon, Surv., Hamilton, Informs us that he is preparing plans for the construction of a bridge over Seven Mile Creek, near this place. CHICAGO, ILL.—Bids are asked until Dec. 28 for furnishing the material and for constructing the substructure and superstructure of an eight-track railway bridge, over the main drainage channel. Jas. Reddick, Clk. Bd. Sanltary Trustees.

ST. PAUL, MINN.—L. W. Rundlett, Cy. Engr., is pre-

tary Trustees.

ST. PAUL, MINN.—L. W. Rundlett, Cy. Engr., is preparing plans for the widening of the south approach of the Wabasha St. bridge, by constructing a fill for 250 ft and doing sway with the last two spans. A roadway, 36 ft. wide, and two 10-ft. sidewalks will be provided; estimated cost, about \$100,000.

ATCHISON, KAN.—Reports state that, provided the Atchison Bridge Co. does not submit to the terms of the railway companies by Dec. 1. an offer will be made to the Missouri Valley Bridge Co., Leavenworth, Kan., of \$400,000 in bonds, for the construction of the proposed railway bridge.

CATHLAMET, WASH.—Bids are asked until Jan. 1 for building a draw bridge, according to reports. Elmer B. Cotwell, Audr.

Cotwell, Audr.

TACOMA, WASH.—The council street committee and the county commissioners considered a proposition Oct. 29 to construct a bridge about 165 ft. long over the Puyallun River, on 11th St. It is proposed to extend the street about 1,200 ft, on the east side of the river.

NAPA, CAL.—Bids are asked until 10.30 a. m.. Nov. 17, for constructing a stone bridge across Fagen Creek. N. W. Collins, Clk., Bd. Supervisors.

BUILDINGS.

BARRE, VT.—Phelps Bros, have been awarded the contract for the plumbing and heating of the city building, at \$3,813.

and neating of the city building, at \$3.813.

BOSTON, MASS.—J. M. Meredith, 15 Congress St.; J. Murray Howe, 28 State St., and others, are said to be behind a project to erect a 6-story building on the site of the Old Boston & Albany R. R. station on Beach St., for the wholesale shoe trade; estimated cost, \$500,000. Archs. Peabody & Stevens, 919 Exchange Bidg.—Plans have been prepared by Winslow & Wetherell, 3 Hamilton Place, according to reports, for an 8-story fireproof business building, at Essex and South Sts., for the Wm. b. French heirs.—Plans have been prepared for six brick and stone flat buildings, to be erected at Dorchester for J. J. Connell and Joseph Green, to cost about \$90,000. Archs., J. F. & G. H. Smith, 13 School St.—A number of store and apartment buildings will be erected at Roxbury. according to reports, for C. F. Ayer, Lowell, Mass., to cost about \$86,000. Arch. Arthur H. Bowditch, 85 Devonshire St.; contractor, Angus McDonald, 17 Otis St., Boston.

shire St.; contractor, Angus McDonald, 17 UIS St., Duston.
BUFFALO, N. Y.—Bids are asked until Nov. 23 for remodeling engine house No. 3 on Broadway, near Jewerson St., and for building an addition thereto. R. G. Parsons, Secy. Bd. of Pub. Wks.
SOUTH HADLEY, MASS.—A sum of \$50,000 has recently become available towards the erection and equipment of a new dormitory building for Mount Holyoke College. Treas., A. L. Williamson, Northampton, Mass.
DANBURY, CONN.—Bids are asked until Nov. 26, according to reports, for the construction of a court house, Arch., Warren R. Briggs, 338 Main St., Bridgeport, Conn.
FARMINGTON, CONN.—Plans are being prepared, ac-

FARMINGTON. CONN—Plans are being prepared, according to reports, for a 1½-story frame dwelling, 30 × 50 ft., for A. A. Pope, Cleveland, O., and Miss A. Pope, to cost about \$50,000. Archs., McKim, Meade & White, 160 5th Ave., New York.

NEW BRITAIN, CONN.—The directors of the New Britain Institute have awarded the contract for building the proposed library. to B. H. Hibbard, of New Britain, at about \$50,000. Archs., Davis & Brooks.

about \$50,000. Archs., Davis & Brooks.

ALBANY, N. Y.—We are informed that plans are being prepared for a public bath to be erected on Broadway, near Orange St.; estimated cost, \$30,000.

BROOKLYN, N. Y.—Bids are asked by the department of public charities, foot of East 26th St., New York, until Nov. 22, for the erection of one idiot pavilion, one nurses' home, two new wings, and materials and alterations to the central top story of the Kings County Hospital; work to be completed within 180 days.

BUFFALO, N. Y.—Bids were received by the commissioner of public works, Nov. 9, for erecting school buildings on Delaware Ave., near Bryant St., and at West and Delavan Aves., at \$65,500 and \$77,311 respectively.

NEW YORK, N. Y.—Bids are asked by the board of

ings on Delaware Ave., near Bryant St., and at West and Delavan Aves., at \$55,500 and \$77,311 respectively.

NEW YORK. N. Y.—Bids are asked by the board of education, at 585 Broadway, antil Nov 21, for supplying heating and ventilating apparatus and electric lighting plant for Public School 169, and for supplying furniture for Public School 166. Borough of Manhattan; also for supplying heating and ventilating apparatus for Public School 167, Borough of Bronx; also for excavating, grading, concreting, etc., at Public School 94. Borough of Brooklyn; also for improving the sanitary condition of Public School 41, 14 and 18, Borough of Brough of Brooklyn; also for improving the sanitary condition of Public Schools 4, 17 and 18, Borough of Richmond.—Plans have been prepared, according to reports, for a 9-story theatre building, 100 x 175 ft., to be erected at 124th St. and 7th Ave., for George Blumenthal, Mgr. of Harlem Opera House, to cost about \$450,000. Arch. Alfred Zucker, Decker Bldg.—Plans have been filed by Thos. McKeon, 338 East 66th St., for an 8-story brick and stone store and loft building, at 16 East 17th St., to cost \$90,000. Arch. Wm. J. Dilthey, 1 Union Square: by Jobn D. Karst. Jr., 258 West 28th St., for four 5-story brick flat buildings, at 438 to 444 West 29th St., to cost \$70,000. Arch. Louis Korn, 37 Maiden Lane.

SYRACUSE, N.Y.—The Northcott Warming & Ventilating Co. has been awarded a contract for a heating apparatus for the Washington Irving school building, at \$1,930.

TOMPKINSVILLE (S.I.). N. Y.—Bids are asked until Dec. 23 for metal work and crection of the West Bank light station, as stated in our advertising columns. Lieut.-Col. D. P. Heap, U. S. Engr., Tompkinsville.

ATLANTIC CITY, N. J.—Besides the new hotel building just completed for Clarence M. Busch, 606 Pacific Ave., at a cost of \$55,000, reports state that extensive improvements will be made to the Hotel Rudolph, Chas. R. Myers proprietor; and also to the Scarborough, of which Aldred Wyman is proprietor, and the Wiltshire Hotel, S. S. Phoebus, proprietor.

BRIDGETON, N. J.—The Cumberland county free-holders, Nov. S. adopted plans and specifications for a new \$60,000 county insane asylum to be erected on the almshouse farm.

holders. Nov. S. adopted plans and specifications for a new \$60,000 county insane asylum to be erected on the almshouse farm.

BRADDOCK, PA.—George Hogg, of Braddock, has been awarded the contract for erecting the new 2d Ward school building, at \$47,677.

CANONSBURG, PA.—A fire in this town Nov.14 destroyed a number of husiness buildings near West Pike St. and Jefferson Ave., causing a reported loss of \$150,000.

PHILADELPHIA, PA.—Plans are being prepared, according to reports, for a 6-story office building, to be built at 10th and Market Sts., at a cost of about \$70,000.

Arch., E. L. Rice, Jr., Equitable Bidg., Wilmington, Del.—Plans have been filed for a 17-story business building, 60×145 ft., to be erected for the Real Estate Trust Co., at Broad and Chestnut Sts.

PITTSBURG, PA.—A permit has been granted for the erection of the new Sterrett school building, on Lang Ave., at a cost of about \$100,000.

PARKESBURG, PA.—The citizens of this borough have voted to issue \$20,000 in bonds towards the immediate erection of a new school building.

SAVANNAH, GA.—The following hids were received Nov. 10 for the construction of hospital wards, etc., for a general hospital for 1,000 beds in Savannah; Capt. J. W. MeHaig, A. Q. M.: William Armitage, Savannah \$129,300,90 days; Miles & Bradt. Atlanta, \$23,000, 50 days: W. F. May & Co., Chathanoga, \$77,934.33, 60 days; Nicholas Itiner, Atlanta, \$83,323, 120 days; Woodward Lumber Co., Atlanta, \$103,300, 100 days; Heirs & Black, Savannah \$12,2200.

Maller, Wash'ngton, D. C., \$113,000, 60 days; Rezin W. A. Miller, Wash'ngton, 50, \$88,528, Feb. 1; Samuel U. Walker, Wash'ngton, 50, \$88,528, Feb. 1; Samuel U. Walker, Wash'ngton, 50, \$89,500,00,00 days; George Girvan, Manassas, Va., \$117,000. There were nine bids for the numbing contract, the lowest of which was that of Henry D. Roette, Baltimore, Md., at \$12,670.

BIRMINGHAM, ALA.—Plans have been accepted for the new hospital building to be erected at Fountain Heights for the following contract, the lowest of which was that of Henr

BIRMINGHAM, ALA.—Plans have been accepted for the new hospital building to be erected at Fountain Heights for the Sisters of Charity, to cost about \$250,000 when completed. At present but one wing will be built at a cost of \$60,000. Archs., T. U. Walters & Co., Birming-

cost of \$60,000. Arens., T. U. Walters & Co., Birming-ham.
SHELBYVILLE, KY.—L. C. Millis, Mayor, informs us that plans and proposals will probably be asked early next year for the new court house now under considera-tion by a joint county and city committee; estimated cost, \$50,000.

\$50,000.

EATON, O.—The following bids were received. Nov 5, for heating, plumbing, etc., in court house, Eaton, W. A. Edison, Country Auditor: Sanders & Essmein, Columbus, O., \$5,000; Barger Bros., Columbus, \$4,925; Ware & Moodle, Davton \$4,885; F. Desarmoux & Co., Springfield (accepted), \$4,875.

(accepted), \$4.875.

PORT CLINTON. O.—The commissioners of Ottawa county have awared the contract for the building of the new court house to Caldwell & Drake, of Columbus Ind., at \$45.571. Marbhead stone will be used. Other bidders were: H. Karg, Fostoria, O., \$49.000; William Doerschach, Sandusky. O., \$44.900; Geo. Felck, Sandusky \$50.000; Proepo Bros., Toledo, O., \$53.374; M. Rabbit, Toledo, \$61.000; F. Burch, Port Clinton, \$52.000; James Dacault, Columbus, O., \$47.539.60.

Columbus, 0., \$47.539.60.

DETROIT. MICH—Robt Y. Ogg. Seey., Bd. of Pub. Wks., informs us that Splitzley Bros. were the only bldders, on re-advertisement, for erecting the new G. A. R. memorial building, at \$39.685, for Woolmith cut stone, and \$39.000 for lonia stone.

"HICAGO, ILL.—A permit has been granted to John Monk for erecting a 10-story store building 30 × 90 ft., at 161 Market St., to cost about \$69.000 Arch. H. B. Wheelock, 226 La Salle St.—It is reported that Charles Netcher, of the Boston Store Dry Goods Co., contemplates the erection of an addition to the nresent building on Madison St.—C. R. Cave, owner of the South Chicago department store, is also said to expect to erect the second half of big building at Indiana Ave, and 48th St., at a cost 6 \$60.000.

SAN ANTONIO, TEX.—The large department store, is also said to expect to erect the second

\$60,000.

SAN ANTONIO, TEX.—The large department store of W. Stewart was destroyed by fire Nov. 10; loss.\$150,000; issurance, \$40,000. according to reports.

SACRAMENTO, CAL.—Plans and specifications are asked to the board of education, until Dec. 6, for a new high-chool building to cost about \$80,000, excluding the site ind the equipment.

and the equipment.

SALINAS, CAL.—A special election will be held Dec. 15 to vote upon the proposition of Issuing \$30,000 in bonds for a new high-school building.

NASSAU, NEW PROVIDENCE WEST INDIES.—J. A. MacDonald, builder, Mismi. Fla., is said to have charge of the construction of a new 4½-story brick hetel building, to be erected here for Henry M. Flagler, 26 Broadway, New York, at a cost of about \$200,000. Ingle & Almirall, Consulting Archs., 874 Broadway, New York.

WATER WORKS.

CHESTER, VT.—We are informed that the Chester Wate Co. has let the contract for building works to the C. I Egice Co., Boston, Mass. The water will be supplied by gravity from a brock. The works will be completed by July 1, at a cost of \$40,000. L. N. Farnum, Engr., 1 Central St., Boston: J. E. Póllard, Pres.

Central St., Boston; J. E. Pollard, Pres. St. Johnsbury, VT.—R. S. Cheney, Shpt. Water-works, writes us that no improvements or extensiona to works are contemplated, as reported in our issue of last week. BAINBRIDGE, N. Y.—T. L. Randall's reported as making surveys for extending the mains of the Bainbridge Water Co.'s works for a distance of four miles, and also for a new reservoir.

for a new reservoir.

BUFFALO, N. Y.—The board of public works has selected a site for the new pumping station on the park lands. The point chosen for the shaft is 200 ft. from the street, and for the building 100 ft. from Jersey St. The tunnel will be 5,800 ft. long, will run out to the Emerald Channel, and will cost about \$309,000. Bids will be opened next spring and the work will take about two years. The two boards will decide upon the details of the building for the pumping plant, which is designed to be an ornament to the parks.

CHURCHVILLE, N. Y.—An election will be held Nov. 23 to vote on the question of issuing \$5,500 in bonds for works. The water supply will be furnished by Sage &

works. The water supply will be furnished by Sage & Potter.

DUNKIRK, N. Y.—R. L. Cary Pres. Water Bd., writes us that the water hoard will undoubtedly soon purchase new pumping machinery. The capacity, cost, etc., have not yet been decided upon. No action has yet been taken toward letting the contract. C. J. Carney and Wm. Bookstaver are on the committee.

NEWBURGH, N. Y.—Jos. A. Sneed, Pres. Water Comrs., writes us that the city has a water supply from Washington Lake, but it is deemed inadequate by the engineers and the commissioners, who have recommended to the council to call an election to vote on the question of an additional water supply. The vote will not be taken before December. The estimated cost of the increase supply is \$274,000. There will be required about 4½ miles of 30-in. cast iron conduit. The water will he furnished by gravity, with about 400 ft. head. Everett Garrison, Engr. Bd. Water Comrs.; John D. Van Puren Consult Engr. ARKVILLER, N. Y.—H. Robinson, of Stamford, N. Y. and Abner Morse are reported as making surveys for works for this place.

this place.

UTICA, N. Y.—The West Canada Water Co. has been granted a franchise to lay water pipe through this city to furnish New Fartford. New York Mills. etc. Water will also he supplied to this city. Work will be begun at once, the contract for building the works having been awarded to the T. A. Gillesvie Co., Plitsburg. Pa. and Havemeyer Bidg., New York. Geo. L. Record, Pres. West Canada Water Co. Newark, N. J.; W. S. Bacot, Engr., I Broadway, New York.

New 101K.

ALLENHURST N. J.—Bids were received Nov. 14, for the purchase of \$60,000 of 4% 30-year gold honds for the purchase of the property of the Coast Water & Sewer Co., voted for Nov. 4. E. P. Benjamin, Mayor.; E. H. Ward, Jr., Clk.

Jr., Clk.

HIGHTSTOWN, N. I.—The New York Filter Co., New York, has been awarded the contract at \$2.500 for putting in a filter at the weter-works, according to reports.

BENNETT, PA.—C. W. Dankmyer, Clk., writes us that this place yoted Nov. S to issue bonds for additional machinery, to pump water from the works of Millvale Water Co.

in a filter at the wster-works, according to reports. BBNNETT, PA.—C. W. Dankmyer, Cik., writes us that this place vated Nov. 8 to issue bonds for additional machinery, to pump water from the works of Milvale Water Co.

CANONSBURG, PA.—J. P. McNary, it is stated, is interested in the proposed works for this place.

DOYLESTOWN, PA.—I. L. Kramer, Prev. Council, writes us that the council does not think it will require a great case of work to set an increased water supply as propased. Population, 3,500.—The following bids were received. Population, 3,500.—The following bids were received. Propased Population, 3,500.—The following bids were received propased propased Population.

EPHRATA, PA.—The question of either having the Ephrata Water Co. increase its supply or of building municipal works is being considered.

BRADDOCK, PA.—The council of North Fraddock is considering the question of building works. Reports state as follows: The committee, on Nov. 8, submitted to the borough council a plan for works that makes a requisition for 4-in. place, 72 bydrants, 25 8-in. valves, 18 4-in. valves, 103 boxea, a stant-place, 60 × 50 ft., and pumning station property; the works to cost about \$80.000. The cost of songeristion will be shout 4 cts. a 1,000 galions or a bass of 500,000 galions daily. The yearly revenue, after supplying the fire d-partment, is estimated as \$21,000, giving consumers a rate of 15 cts. a 1,000 galions.

PHILLADELIPHIA, PA.—Plans and spec fications for the proposed reservoir on George's Hill. West Philadelphia, are reported as about completed. If will have a causeful for shult 160,600,000 galions. Estimated one, \$8,000, giving consumers proper in the committee to completed. If will have a causeful for shult 160,600,000 galions. Estimated one, \$8,000, giving consumers proper in the proposed works and electric pinks of

MOUNT STERLING, KY.-Geo. W. Baird, Mayor, writes that this place voted, Nov. 8, against issuing \$80,000 in

CLEVELAND, O.—Bids are asked until Nov. 25 for fur-ishing and installing at the Division St. pumping station of the Cleveland water-works, a portable boller, pulso-eter pump, and carriages, complete. Geo. R. Warden, ir. Pub. Works.

MARIETTA, O.—Press reports state that the contract for furnishing a 3,000,000-gallon pumping engine will be awarded to the Snider-Hughes Co., Cleveland, O., at \$15,918.

BEREA, O.—This place voted, Nov. 8, to Issue \$30,000 in onds for works.

bonds for works.

McCONNELSVILLE, O.—Geo. Bircb. Cik., writes us that bids will be asked about Jan. 1 for the purchase of \$20,000 of water-works bonds, voted for in September. The bonds will be sold about Feb. 1.

NEW RICHMOND, O.—Plans and specifications for works and an electric plant are about completed by J. F. Witmer, 705 Ellicott Square, Buffalo, N. Y. H. Buckley. Pres. Trustees, writes us that bids will probably be called for next week. Bids for the bonds have been opened, but they have not yet been placed. C. R. Dsy, Cik.

TROTWOOD, O.—C. O. Lucas & Co., Greenville, O., have been swarded the contract for installing the machinery for the proposed works for this place. J. B. Gingry, Greenville, has the contract for the trenching and setting of hydrants.

hydrants.

WELLSVILLE, O.—This place voted. Nov. 8, to issue \$15.000 in bonds for extending the works. D. A. Davidson writes us that no steps have been taken toward securing plans and specifications.

UPPER ALTON, ILL.—The council has grant d a 25-year franchise for works to the Alton Water-Works Co. DUQUOIN, ILL.—H. A. Keith, Redfield Ave. and Stein St., Chicago, and J. H. Thompson 170 Washington \$t, Chicago, are reported to have been granted a franchise for works. In February a confract for building the works was awarded to them. Population, 5,000.

awarded to them. Population, 5,000.

SHEBOYGAN, WIS.—The City Water Co., it is stated, will put in a new pump of 8,000,000 gallons.

PERSIA, IA.—Press reports state that hids will be wanted about May 1 for hullding works to cost \$3,000. C. B. McColm and J. Seddon may be addressed.

Colm and J. Seddon may be addressed.

ALBERT LEA. MINN—M. M. Luce. Comr., writes us that a new pump has been purchased from the Deane Steam Pump Co. Holyoke. Mass. It will be installed either by the city or by contract. The council promess to sink a 12-in. artesian well, to be an auxiliary to the S-in. well. FAST GRAND FORKS, MINN.—Bids are asked until Dec. 1 for constructing works and an electric plant. according to reports. W. I. Gray & Co., Engrs., Sykes Bidg., Minnearch's Minn.

PERHAM, MINN.—T. M. Maguire, Minneapo'ls, Minn., is reported to have been awarded the contract at \$7.588 for the proposed works, excepting the tank and steel tower. Alex, Nelson, Wadena, Minn, has the contract for the power

station.

NEBRASKA CITY, NEB.—The Missouri Pacific Ry. Co., it is reported, will put in works for its system in this city. SIOUX FALLS. S. DAK.—L. M. Estabrook. City Audr., writes us that the proposition to issue \$120 000 in bonds for the burchase of the works of the Sloux Falls Water Co., or for building municipal works, carried at the election Nov. S.

norst for an increased supply. Mayor Berkey may be addressed.

HILLYARD, WASH.—The Hillyard Town Site Co. will spend about \$10,000 for improvements to the water-works, streets, etc., at this place, according to reports. F. Lewis Clark, Pres.; A. D. Jones, Agent.

KLAMATH FALLS, ORE.—The Corona Land & Water Co. has been 'ncorporated with a capital stock of \$100,000, by Sam'i C. Trazner, A. L. Leavitt and C. L. Parrish.

PASADENA, CAL.—The San Pasqual Land & Water Co. has been incorporated with a capital stock of \$500 000. of which amount \$5,000 has been subscribed. The purposes of the organization are to buy and sell land ard water rights, maintain water-works, etc. The directors are: P. M. Green, H. H. Markham, G. D. Patten, A. R. Dodworth and Frank S. Daggett, all of Pasadena. We are informed that the company will ask for bids about Jan, 1. The plans and specifications are not yet prepared. The water will be secured from artesian wells. Estimated cost, \$100,000.

THREE RIVERS, QUE.—Bids are asked until Dec. 1 for constraints.

\$100,000.

THREE RIVERS, QUE.—Bids are asked until Dec. 1 for constructing a pier and a suction pipe into the River St. Maurice. L. T. Desaulniers Secy. and Treas.

STAYNER, ONT.—This place will vote, Dec. 13, on the question of issuing \$26,000 in bonds for the proposed works.

THESSALON, ONT .- The question of building works, it stated, will be voted upon.

VAN KLEEK HILL, ONT.—The town clerk writes us that the council has abandoned for the present the idea of taking steps for building works.

of taking steps for building works. SANTIAGO, CUBA.—Press reports state as follows: The man question now before Gen. Leonard Wood, Governor of the Military Department of Santiago, is that of a water supply. The rainy season is about over, and, usually, after a month or so of dry weather water has to be brought from the mountains and sold in the atreets. Gen. Wood is anxious to avoid a repetition of such conditions, and has engaged the services of three engineers to report as to the best methods of supplying the city with water, whether with artesian wells or otherwise.

SEWERAGE.

BOSTON, MASS.—Local papers state that the following bids were received Nov. 14 for repairs on the pumping engines at Cow Pasture aewage pumping atation, Dorchester. The items are (1) new valve gear, governor pumps, governor piping, gear guards, marking gears, jacket piping, and changes in galleries; (2) low pressure inlet cam. cam-shaft bearings clutches, clutch-lever latches and quadrants, cut-off tell-tales, crank indexes, valve-stem drip cups and valve chest drains; (3) pump-valve seats, pump valves, valve plates, valve guards, interchangeability, nuis for valve seats, pump valves and pump drain valves; (4) charge for each hour of working time of each fitter under section for acraping steam valves; (5) charge for each hour of working time of each fitter under section for each helper in same section: I. T. Morris Co., Philadelphia, (1) \$17,950, (2) \$3,250, (3) \$29,790, (4) 50 cts., (5) 25 cts.; Lockwood Mig. Co., East Boston, (1) \$8,300, (2) \$240, (3) \$21,785, (4) 60 cts., (5) 40 cts.; Atlantic Works, East Boston, (1) \$14,970, (2) \$2,500, (3) \$25,561, (4) 60 cts., (5) 40 cts.; Atlantic Works, East Boston, (1) \$14,970, (2) \$2,500, (3) \$25,561, (4) 60 cts., (5) 40 cts.; Gorge F. Blake Mig. Co., New York, (1) \$8,400, from which will be deducted \$450, provided it is not required to furnish any pumpa with bases

or attendant fitting of pump proper as covered by section 4 for governor pumps; (2) \$1,600, (3) \$20,000, (4) \$0 cts., (5) 40 cts.; Bertelson & Petersen, East Boston, (1) \$15,178, (2) \$945, (3) \$22,844, (4) 50 cts., (5) 30 cts., (5) 40 cts., (6) 30 cts., (6) 30 cts., (6) 30 cts., (6) 30 cts., (6) \$1,780, (3) \$25,500, (4) \$6, (5) \$3.

WORCESTER, MASS.—Local papers state that the construction of the Water St. tunnel sewer will be begun as soon as the council passes the order. The committee has voted to recommend that \$100,000 be appropriated for this work.

soon as the council passes the order. The committee has work.

BROOKLYN, N. Y.—Daniel J. Creem and Edward if Gorman have been awarded the contracts for building savers in the East New York section, one in the Eastern Park way, and the other in Butler St., at \$20,200 and 1700, respectively. The bids for this work were opened during the last sdministration.

BUFFALO, N. Y.—The city engireer is said to be considering plans for sewers for South Buffalo.

LIBERTY, N. Y.—The commissioners have adonted the plans of Wise & Watson, Passale National Bank Bidg., Passale, N. J., and will soon submit the question of the building of the sewers to the voters of Liberty. If the result of the election is favorable, the commissioners will at once proceed to get everything in shape for the work of construction as soon as spring opens.

NEWBURG, N. Y.—Bids are asked until Dec. 19 for constructing the First St. tunnel sewer, as described in our advertising columns. D. J. Coutant, Clk. Bd. Pub. Wks. NEW YORK, N. Y.—Bids are asked by the department of public charitles, foot of East 26th St., Manbattan, until Nov. 28, for furnishing and laying a cast-tron sewer pipe on Randalls Island, and by Jas. Kane, Comr. of Sewers. 265 Broadway, Manbattan, until Nov. 30, for constructing a system. In making up the annual budget in February the trustees will probably include an appropriation for surveys for a system, with recommendations that the work be done in the spring.

ROCHESTER, N. Y.—It is proposed to construct a 5-ft. brick sewer in Culver road, at a cost of about \$25,000.

ALLENHURST, N. J.—Bids were received Nov. 14 for the purchase of \$60,000 of 4% 30-year gold bonds for the purchase of \$60,000 of 4% 30-year gold bonds for the purchase of \$60,000 of 4% 30-year gold bonds for the purchase of \$60,000 of 4% 30-year gold bonds for the purchase of \$60,000 of 4% 30-year gold bonds for the purchase of \$60,000 of 4% 30-year gold bonds for the purchase of \$60,000 of 4% 30-year gold bonds for the purchase of \$60,000 of 4% 30-year gold bonds for

chase of the property of the Coast Water & Sewer Co., vocited for Nov. 4. E. P. Benjamin, Mayor; E. H. Ward, Jr., Cik.

RED BANK, N. J.—Bids are asked until Nov. 29 for the construction of sewers and appurtenances, as stated in our advertising columns. A. C. Herrison, Cik. Comrs.; Hedenherg & Kinsey. Engrs., 108 Fulton St., New York.

ETNA, PA.—Bids are asked until 7 p. m., Nov. 18, for constructing a certain sewer. S. E. Hanna, Cbn. Com.

RANKIN, PA.—Bids are asked until noon, Nov. 21, for constructing about 1,800 ft. of brick main sewer and 3,400 ft. of pine sewers. Trimble & Miller, Engrs., 430 Fourth Ave., Pittsburg; J. S. Sheekey, Cik.

BALTIMORE, MD.—The council has voted to build a 4ft, brick sewer in Harris Creek at a cost of \$24,000.

HAGERSTOWN, MD.—E. M. Schindel Mayor, writes us that the matter of a system is in the hands of the committee. No definite action will be taken for some months.

S. M. Bloom, Chn., Com.; M. L. Byers, Cy. Cik.

NATIONAL SOLDIERS' HOME, VA.—Bids are asked until Nov. 25 for furnishing materials and constructing the underground steam, water and sewer connections with two wooden barracks in course of erection on the grounds of this Home; also, for furnishing and placing one steam numn for pumping selt water to said barracks. P. T. Woodfin, Governor of Home.

NORFOLK, VA.—Jos. L. Winston writes us that \$150,000 in bonds for a system in Brambleton, and for improving the streeta, voted Nov. 8, will be issued at an early date, W. L. Sterling, Secy. Local Bd. of Brambleton; W. F. Brooke, Cy. Engr.

MARIETTA, GA.—The question of issuing \$20,000 in honds for a system is being considered by the council. It will require state legislation before bonds can be issued. R. E. Lamboy, Cy. Cik.

WAYCROSS, GA.—Waring, Chapman & Farqubar, 874 Broadway, New York, have presented estimates for a system to cost about \$37,262.

tem to cost about \$37,262.

NEW ORLEANS, LA.—Councilman Dreyfous has introduced an ordinance asking for b'ds until March 27 for the purchase of a 50-year franchise for a system.

JACKSON, MISS.—Efforts are being made for the immediate construction of a system. Messrs, Milasps Virden and John Hart may be addressed.

COSHOCTON, O.—Bida are asked until Nov. 19 for constructing about 4,600 ft. of 10 and 8-in, pipe sewer, 6 manholes, etc. F. F. Wagner, Clk.

BAST LIVERPOOL, O.—Arrangements are being made for constructing sewers in district No. 2, this winter; estimated cost, \$10,000.

WELLSVILLE, O.—This place voted. Nov. 8 to issue

mated cost, \$10,000.

WELLSVILLE, O.—This place voted, Nov. 8, to issue \$75,000 in bonds for a system.

MARION, IND.—It is proposed to build a portion of the South Marion atom sewer this winter, at a cost of about \$21,000. The total length will be about 7,679 ft.

PONTIAC, MICH.—Blds are asked until Nov. 25 for constructing 3,180 ft. of 8 and 10-in. pipe sewers, as stated in our advertising columns. Wm. J. Fisher, Cy. Engr. CHICAGO, ILL.—Nash & Dowdle, the contractors building the sewer on the north side, have received the contract for the intercepting sewer in Sheridan road, between Pratt and Bryan Aves., at about \$30,000.

GREENVILLE, ILL.—The Chas. T. Bray Construction Co., Believille, Ill., has been granted a twenty-year franchise for sewerage construction in this city.

JANESVILLE, WIS.—The council, according to reparanging for a system. Alderman Sennett may be

dressed.

DENISON, TEX.—Plans and estimate of the cost of a system have been ordered by the council. It is reported that work will be begun soon. City Engineer McWillie and Mayor Lebrecht may be addressed.

BAKER CITY, ORE.—D. L. Mooman has submitted a proposition for a flume 2½ miles long for use as a sewer, to cost about \$4,655.

to cost about \$4,655.

LONG BEACH, CAL.—Thos. H. James, of Santa Monica.
Cal., is to design a system for this place, for which it is proposed to vote bonds.

MONTREAL, QUE.—The contract for constructing the sewage disposal works and a ten years' lease of the St Denis Ward sewage disposal farm has been awarded to Engineer Janin, at \$16,000. Burble, cette legicleture, has

PUEBLA, MEXICO.—The Puebla state legislature has passed a bill authorizing the city authorities to contract for the construction of a system to cost about \$2,000,000.

GARB board u refuse a CAMD RICH! LOUIS council cinerato the last with a try, ask cities of pointed where is the que new tax plant. NEW erecting this clip by W. respond respond in Eng. the disp cification the coumitted will be FOR

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tions (\$44,116,716; E 196. Ridge Jones, 734. (134; K Booth

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GARBAGE DISPOSAL-STREET CLEANING

GARBAGE DISPOSAL-STREET CLEANING WOODMONT, CONN,—Bids are asked by the sanitary poord until Nov. 21 for the collection and removal of the refuse and garbage of the village. C. M. Smith, Cik. CAMDEN, N. J.—The Sanitary Street Sweeping Co. has been incorporated to manufacture, purchase and acquire barret cleaning and sweeping machines; capital stock, \$100, \$10

heat the council met Nov.7 and decided that the installation of an incinerator for disposing of the garbage was necessary. Since the last meeting, nealth Onicer Allen has corresponded with a number of the nearth officials throughout the country, asking information as to the methods employed in the relices of disposing of the garbage. Committees will be appointed by the respective boards to visit the various cities where garbage is burned. The council is anxious to have the question settled within the next month, so that the new tax levy may be increased for the construction of the class.

NEWPORT, KY .- A report on the feasibility, cost, etc., of NEWPORT, KY.—A report on the feasibility, cost, etc., of creeting a plant to ourn ine garbage and other reture of this only will be presented to the council this monta by W. L. Glazler, Ly. Engr. The city has received correspondence from 11 concerns in response to advertisement in Engineering News, inviting correspondence concerning the disposal of garbage in a modern sanitary way.

CLEVELIAND, O.—Health Officer Hees has completed specifications for collecting retuse other than garbage and for the construction of a disposal plant. These will be submitted to the citizens' garbage commission, and a contract will be awarded later.

FORT THOMAS, KY.—The following bids were received to the thomas, KY.—The following bids were received to Y. 2 for the construction of a garbage chematery. Capt. p. Palmer, Asst. Q. M., Checago, Hi.: Joseph aicDermott, Newport, Ky., \$1,400; L. H., Wilson, Newport, Ky., 1,600; Dixon Garbage Crematory Co., Toledo, O. (.wo mains, \$2,500 and \$5000; Henry A. Schriver, Newport, Ky.

\$1,171.
CHICAGO, ILL.—Bids are asked until Nov. 19 for the erection of a timber trest, snow dump on the lake from basil. L. E. McGann, Comr. Pub. Wks.

STREETS AND ROADS.

BRAINTREE, MASS.—H. L. White writes us that a contract for removing curh, screening and storing 2,5.0 cu, yards, of trap rock for street work, is soon to be let. Address chairman of selectmen or White & Wetherbee,

Address chairman of selectmen or White & Wetherbee, Engrs.

NEW HAVEN, CONN.—Bids are asked until Nov, 21 for laying concrete wains and cobble gutters on certain streets. C. W. Kelly, Cy. Engr.

CORTLAND, N. Y.—A petition will be presented to the board of village trustees for paving Groton Ave., between main St. and Otter Creek, a distance of 2,315 ft.

HAMILTON, N. Y.—It is reported that Dewitt S. Hadcock, Stockbridge, N. Y., has had pans prepared for a state road between Hamilton and Oneida, 18 miles long and 52 ft. wide; estimated cost, \$40,000.

PITTSBURG, FA.—Inc. 10.100 lbg. Dans prepared for a state road between Hamilton and Oneida, 18 miles long and 52 ft. wide; estimated cost, \$40,000.

PITTSBURG, FA.—Inc. 10.100 lbg. Dans bave heen received by the county commissioners for improving portions of three roads: Streets Run Road: J. H. McQuaide, \$44,116; J. M. McSpadden, \$41,128; Keeling & Ridge, \$52,5196. Freeport road: Booth & Filinn, \$44,315; Keeling & Ridge, \$40,302; C. M. Driver, \$45,336; Evan Jones, \$46,395; J. C. McQuaide, \$43,803; Ott Bros., \$40,724. Crooked Run Road: John Dell & Dinius Bros., \$39,134; Keeling & Ridge, \$47,014; J. C. McQuaide, \$45,100; Booth & Filinn (accepted), \$38,759.

SCRANTON, PA.—Bids are asked until 7.30 p. m., No. 17, for repairing aspnair pavement for 10 years. M. T. Lavelie, Cy. Clk.

ROCKVILLE, MD.—Bids are asked until Nov. 23, for the purchase of \$25,000 of 4% turnolka bonds. W.

Lavelle, Cy. Cls.

ROCKVILLE, MD.—Bids are asked until Nov. 23, for the purchase of \$25,000 of 4% turnpike bonds. W. w. Welsh, Clk County Comrs.

LYNCHBURG, VA.—Bids are asked until Nov. 21 for furnishing and hauling about 5,000 cu. yds. of hrokea stone, and paving about 2,150 sq. yds. of Rivermont Ave.

L. P. Rodes, Cy. Engr.

JACKSONVILLE, FLA.—Philip Prioleau, Cy. Engr., is preparing plans and estimates for about 20,350 sq. yds. of brick paving on Main St. He informs us that they will be submitted to the board of public works for approval, about Nov. 17.

(WINGSUILLE, KY.—It was voted Nov. 8 to issue \$38.

OWINGSVILLE, KY.—It was voted Nov. 8 to issue \$38,-000 in bonds for county road improvements, according to reports.

DANVILLE, KY.—The county voted Nov. 8 to Issue 40,000 of turnpike bonds, according to reports. RICHMOND, KY.—Reports state that it was voted Nov. to Issue \$70,000 of turnpike bonds.

MAYSVILLE, KY.—It is reported that an issue of \$60,-90 of honds for county road work was authorized Nov. 8. BOWLING GREEN, KY.—At the election, Nov. 8, the county commissioners voted to Issue \$140,000 of 4% bonds.

CARLISLE, KY.—The county voted, Nov. 8, to Issne \$40,000 of turnpike honds.

versallles, ky.—An issue of \$40,000 of turnplke onds was authorized at the election, Nov. 8. BRIDGEPORT, O.—This place voted, Nov. 8, to is \$15,000 for street improvements. J. A. Fawcett, Cik.

55,000 for street improvements. J. A. Fawcett, Clk. CLEVELAND, O.—An ordinance has been passed to improve portions or high and Melrose Aves. by grading, curbing, draining and brick paving. H. H. Burgess, Cy. Cik.—W. H. Searies and J. B. Davis, Engra., have submitted a report to the county commissioners, on the proposed improvement of the Brecksville Road.

ATLANTA, GA.—Bids are asked until Nov. 21 for paving the roadway of the Mitchell St. viaduct, with asphalt, brick or wooden blocks and the sidewalks with hexagonal tiling, sheet cement or asphalt. R. M. Clayton, Cy. Engr. DAYTON, O.—Bids are asked until Dec. 12 for furnishing the material and for paving about 7,631 sq. yds. with Euckeye block, etc., 5,630 lin, ft. of curbing and 165 ft. of circular curbing. on Sycamore, Council and Charter Sts. J. L. Baker, Pres. Ed. Cy. Affairs.

HYDE PARK, O.—Bids are asked until Nov. 23 for the purchase of \$9.721 of 4½% street improvement bonds. Frank Lewis, Village Clk.

MIDDLETOWN, O.—Bids are asked until Nov. 18 for furnishing and constructing limestone curb and gutter on Main and 9th Sts. J. V. Bonneil, Cy. Cik.
TOLEDO, O.—A resolution has been passed to pave Woodruff Ave., from Ashland Ave. to Madison St., with asphait, brick or granite. L. P. Harris, Cy. Cik.
WELLSTON, O.—Bids are asked until Nov. 28 for the purchase of \$7,491 of 5% street improvement bonds. F. P. Wangler, Cy. Cik.

P. Wangler, Cy. Cik.

DECATUR, IND.—We are informed that the question of macadamizing two roads, about 17 miles, affecting the city of becaute and wasnington township, was favorably voted upon Nov. 8 by the country commissioners. The contract with soon be awarded. W. E. Fulk & Co., Engrs., Decaute.

Whis soon be awarded. W. E. Fulk & Co., Engrs., Decautr.
WAUKEGAN, ILL.—City Engineer Bowen has been directed by the board of local improvements to prepare plans and estimates for the improvement of portions of 11 streets.
COUNCIL BLUFFS, IA.—Bids are asked until noon, Nov.
19, for about 27,525 sq. yds. of brick paving, and 3,737 in.
It. of curbing, on portions of certain streets. N. C. Phillips, Cy. Cik.

Phillips, Cy. Cik.

FORT MADISON, 1A.—J. Ross Robertsou, Cy. Engr., informs us that a contract was set Nov. 10 to John bulland, at \$125, for 2,500 sq. yds. of macadam, on the burnington

at \$425, for 2.500 sq, yds. of macadam, on the Burlingon Road.

Si. PAUL, MINN.—We are informed that the matter of paving 10th St., mentioned in our last issue, has been laid over until next spring, on account of the lateness of the season. L. w. kundiett, Cy. Eugr.

KANSAS CITY, MO.—Bids are asked until Nov. 24 for furnishing the material and for constructing sidewalks of uexagon olock, pressed brick, stone and plank; also for furnishing the material and grading on certain streets. Henry A. Wise, Cy. Engr.

SiOUN FALLS, S. DAA.—L. M. Estabrook, Cy. Audr., informs us that adewalks are built by special assessment. An ordinance providing for the coostruction of cement walks for certain districts is now being considered. No contracts will be let at present as it is too late in the season.

SEATTLE, WASH.—F. N. Little, Supt. Sts. and Parks, writes us that the council is trying to get the citizens and tax-payers interested sufficiently to appoint a committee to secure the right of way for a boulevard system of severa, miles, along the water front of the bay, Lakes Uniou and Washington

SAN FRANCISCO, CAL.—The City Street improvement Co. has submitted the lowest bid, at \$51,000, 10. pav.ng Market St. with hitumen, between Taylor St. and Van Ness Ave.

HAMILTON, ONT.—A by-law will be submitted to a vote at the next municipal elect.on, to raise \$200,000 for road improvements.

MANUFACTURING PLANTS.

MANUFACTURING PLANTS.

BROCKTON, MASS.—Plans are completed for the enlargement of the Cobb shoe factory to be ready next June.

E. Taylor Co., Brockton.

LYNN, MASS.—A fire here Nov. 7 damaged the forge shop of the American Ordnance Co., which is in a portion of the General Electric Co.'s plant; loss, about \$10,000.

NEWBURYPORT, MASS.—It is reported that the Fiberloid Co. will erect an addition to its main lactory and enlarge the boiler house, and install two new soilers.

SOUTHINGTON, CONN.—R. W. Cowles, Plantsville, Conn., has been awarded the contract for erecting a brick addition, 30 × 60 ft., to the factory of the Peck, Stow & Wilcox Co.

ELMIRA, N. Y.—John N. Stearns & Co., slik manufac-

Stow & Wilcox Co.

ELMIRA, N. Y.—John N. Stearns & Co., slik manufacturers, of 220 East 48d St., New York, are said to contemplate the erection in this city of a lactory outlands, to cost \$25,000, and employ ahont 800 hands.

SCHUYLERVILLE, N. Y.—The Liherty Wall Paper Co. has let the contract for the foundations and centar walls of

has let the contract for the foundations and centar walls of its new mill, 400×100 ft. Surveys are heing made for a branch from the Fitchburg R. R. to the company's mill.

WHITESTONE (L. 1.), N. Y.—The contract for the erec-on of a 2-story fireproof instrument repair shop, 190 x 5 ft., for the governmen, as well's rotat, has ocen warded; cost, \$10,000.

awarded; cost, \$10,000. GARWOOD, N. J.—The New Era Metal Co., according to reports, will build an addition to its piant.

BRADDOCK, PA.—It is reported that the Home Brewing Co., of this place, will build a brewery, having a capacity of 100,000 bbls. a year. P. J. Brennan, of Braddock, is laterested.

FRANKLIN, PA.—The plant of the Franklin Mfg. Co.,

makers of asbesios materia.s, was descrived by fire Nov. 7; loss, \$40,000; insurance, \$8,000.

PHILADELPHIA, PA.—Plans have been completed, according to reports for a 2-story brick and iron acid house, 50 x 2.0 ft., at Weccacoe Ave. and Delaware River, for the Pennsylvania Salt Works Co.

WILLIAMSFORT, FA.—inc Lycoming Rubber Co. contemplates erecting a new building and instailing new machinery in its piant; three large 72-in. ... inoutar boilers have been ordered.

have been ordered.

FORT PAYNE, ALA.—It is reported that E. N. Cullom, of Birmingham, purchaser of the Alabama Steel Works, will put the plant in operation soon, and that J. M. Caidwell, of Birmingham, whi go East to purchase machinery for an additional folding mill.

CLARKSVILLE, TENN.—Reports state that plans for a snut factory, to cost \$30,000, have ocen completed, and that contracts for erection will be awarded at once. B. F. McKeaye, Jr., is said to be interested.

McKeaye, Jr., is said to be interested.

BARBERTON, O.—Reports state that the Stirling Boller Co., of Chicago, Ili., will enlarge its works at this place.

COLUMBUS, O.—A fire in this city Nov. 7, destroyed the warehouse and forge rooms, 250 × 45 ft., of the Columbus Skein & Iron Works; E. Stoneman, one of the owners, estimates the loss at \$50,000; insurance, \$7,000. It will probably be rebuilt at once.

CTELIBENVILLE O.—It is reported that the Riverside.

STEUBENVILLE, O.-It is reported that the Riverside ron & Steel Co. will erect a 500-ton Bessemer plant on its

resent site.

QUINCY, MICH.—The Michigan Portland Cement Co., neording to reports, will erect a large plant at Quincy.

AVERY, ILL.—Kingman & Co., of Peoria, will remove the plant of the Wier Plow Co., at Monmouth, to this place. It is procable that huldings will be erected at once, according to reports.

JOLIET, ILL.—A fire in this city Nov. 10, destroyed the reat Western Tin Plate milis; loss, \$150,000; insurance,

347,000.

JOLIET, ILL.—A fire in this city Nov. 10 destroyed the tin plate mills of the Great Western Co.; reported loss, \$250,000; insurance, \$47,500.

PEORIA, ILL.—The Illinois Sugar Refining Co., recently incorporated, is looking for a site in this city, for its beet

sugar plant.—The Cordage Co. is preparing plans for a new 3-story brick building. 88 x 165 ft., probably not to be

new 3-story brick building. 88 x 165 ft., probably not to be erected until spring.

MILWAUNEE, WIS.—The Abel & Bach Co., of this city, trunk and bag manufacturese, expects to erect a 7-s.o.y steed-frame hulding. 120 x 200 ft., protected by automatic sprinkler system, with a reserve water supply of 32,0.00 galls. In a tower, to cost \$96,000, to be completed next August. Also a 2-story addi..ou, 30 x 200 ft., to its present factory, and a new barn, 30 x 50 ft.

MINNEAPOLIS. MINN.—The plant of the Hongaria.

MINNEAPOLIS, MINN—The plant of the Hennepin lounty Co-operative Barrel Co., 14th Ave. South and out t., was destroyed by his Nov. 3; loss, \$10,000; insurance,

ATCHISON, KAN,—It is reported that F. J. and T. C. Thonoas will erec. a \$25,000 arc.u.lal ice plant, capacity 20 tons daily, on the line of the Atchison, Topeka & Santa Fe Ry.

Santa Fe Ry.

KANSAS CITY, MO.—Mr. John Kel.ey, of Leavenworth, Kan., according to reports, whi outld a carrel mill of 2,000-bbls, capacity a day, costing \$40,000, and an elevator with storage capacity of 3.0,000 busnels, in this city.

ST. CHARLES, MO.—The plant of the Central Milling & Commission Co. was destroyed by his Nov. 6; loss, \$25,000; insurance, \$11,000. J. M. Mertiu, Pres., says that no definite plans for the ruture have been made.

ST. LOUIS, MO.—The Hamilton-Brown Shoo Co., according to reports, contemplates the erection of an additional latetory to Cos. according 2004,000.

BRANTFORD, ONT.—It is said that the Waterous Entire Works Co. contemplates the erection of an addition of the works.

TORONTO, ONT.—The T, Eaton Co, has been granted permit for the erection of a o-story factory building, cost \$21,000.

NANTES, FRANCE.—Reports state that capitalists here are contemplating the establishment of a large ree manufacturing plant. Edward Kerr, 3 time Gresset, Nantes, may be addressed.

DAGESIAN, RUSSIA.—It is reported that a cotton ning, weaving and dye works is to be erected in Dagenear Petrofiak, by the Casp an Mrg. Co., with once St. Petersburg.

St. Petersburg.

TIENTSIN, CHINA.—Press reports state that the M. A. Foroush & Son Machine Co., Philade.phia, Pa., has been awarded the contract for the construction of a woo-len mil at Tientsio, the machinery to be operated by electric motors, supplied by the Westinghouse Co., of Pitesburg, Pa., contract price, abou, \$50,000.

MISCELLANEOUS CONTRACTS.

BOILERS.—Bostou, Mass.—B.ds are asked until Nov. 22 for 1u.nishing five boliers at the navy yaid. Edw.a Stewart, Paymaster-Gen., Washington, D. C. DREDGING.—Oakland, Cal.—The board of public works has awarded a contract to O. P. Johnson, at \$55,500, for dredging Lake Metritt. The Lenized Ords were given in our mass. Schle.

REPAIRING TRANSPORT.—Washington, D. C.—Reports state that the Bath Iron Works, Dath, Me., has submitted the lowest bid, at \$94,500, for repairing and making aiterations to the transport "Manitooa."

CHEMICAL ENGINE.—Jersey City, N. J.—Bids are asked until Nov. 22 for furnishing one horizontal Babcock chemical engine fitted with a rotary desuge nozzie, Chas. Esterbrook, Cik. Bd. Fire Comrs., 244 Bay St.

PAINA WORK.—Toledo, O.—The Ohlo centennial commission has eogaged W. J. Sherman, The Nasby, for the surveying and levelling of Bayview Park for the centennial exposition of 1902 or 1806. The work of improving the park will commence at once, according to reports.

COAL STORAGE BUILDING.—Philadelphia, Pa.—A con-

park will commence at once, according to reports,

COAL STORAGE BUILDING.—Philadelphia, Pa.—A contract has heen awarded by the United Gas improvement to the Structural iron Co., Baitumore, Md., at \$20,000, for the erection of a steel building for the storage of coal.

TELEPHONE SYSTEM.—Summit, N. J.—A franchise has been granted to the New York & New Jersey Telephone Co. to lay and maintain a conduit system for telephone and telegraph purposes. Robt. J. Mindowney, Township CIs.

COALING STATION—Now Jersey.

Township Clk.

COALING STATION.—New London, Conn.—J. W. Hoffman & Co., Philadelphia, Pa., has been awarded a contract at \$137,500, for the construction of coal storage buildings, wharves, conveyors, etc., at the navy yard. M. T. Endicott, cn. Bureau Yards and Docks, washington, D. C. LEVEE WORK.—New Orleans, La.—Bids are asked by the hoard of state engineers until Nov. 22 for constructing the Shady Grove levee in Bossier parish, and the Bayou Pierre enlargement, each including about 50,000 cu. yds. of earthwork.

SPEEL PIERL—Atlantic City, N. I.—Au iron or steel pier.

yds. of earthwork.

STEEL PIER.—Atlantic City, N. J.—An iron or steel pier,
130 ft, wide and 1,200 ft, long, will be constructed at States
Ave.; estimated cost, about \$150,000. Bids were asked Nov.
10 by G. A. Dentze, Poliadepha, Pa., for the wooden
superstructure. James A. Catheart, Atlantic City, is also

TILE.—Philo, Iil.—Bids are asked by the Embarrass River drainage district until Nov. 29 for furnishing and laying 2,700 ft. of 16-in. tile, 1,400 ft. of 15-in. tile, 1,400 ft. of 14-in. tile, 1,300 ft. of 12-in. tile, 870 ft. of 8-in. tile and 1,200 ft. of 6-in, tile. Address J. L. Ray, Cham-paign, Iil.

paign, III.

PARK WORK.—Philade',phia, Pa.—Bids are asked until
Jan. 14-for furnishing pians and for the development of
League Island Park, comprising about 300 acres. Prizes
of \$750 and \$250 will be awarded for the two best designs.
A. S. Elsennower, Ch. Bureau Cy. Property, 130 City
Hall, Philade',phia.

Hall, Philadelphia.

PARK GRADING.—Newark, N. J.—Bids are asked until Nov. 23 for about 200,000 cu. yds. of earth excavation and 100 cu. yds. of rock excavation, in the middle division of Branch Brook Park, surety \$20,000, as described in our advertising columns. A. Church, Secy. Essex County Park Conn., \$00 Broad St., Newark.

BOILERS, MACHINERY, ETC.—Detroft, Mich.—Bids are asked until Nov. 21 for furnishing the boilers and machine. y nor four st. am log s.gna.s, and nincil Nov. 28 for furnishing the boilers, machinery, etc., for four complete steam fog signais, as described in our advertising columns. Lieut.-Col. M. B. Adams, U. S. Engr., Detroit.

CONDUIT.—Dorchester, Mass.—The following bids have

Lieut.-Col. M. B. Adams, U. S. Engr., Detroit.

CONDUIT.—Dorchester, Mass.—The following bids have been received for constructing a brick conduit 10 ft. in diameter in Callender St., between Don and Lyons Sts., Including 4,000 cu. yds., of rock excavation. Benj. W. Wells, Supt. Sts., Boston: J. P. O'Conneil, \$20,159; C. E. Trumbull & Co., \$21,442; D. F. O'Conneil, \$20,134; M. Russe & Co., \$25,311; Jones & Mechan, \$25,613; T. H. & G. M. Bryne, Hyde Park, Mass., \$21,299; R. J. Maione (accepted), \$16,395; John C. Coleman & Son, \$20,851; George W. Judd, \$24,639; H. P. Nawn, \$20,639; H. A. Hanscom & Co., \$35,-170.

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CONTRACT PRICES.

RIVER WORK.—Sacramento, Cal.—Geo, M. Randle, Asst. Engr. Pub. Wks., informs us that the following bids were received Nov. 2 for cutoffs in the San Joaquin River and Stockton Channel:

	Levee work.cut-	Dredgi	ng, cut-
Bidder.	off No. 3,	No. 3,	No. 4.
	45,000	55,000	40,000
	cu. yds.	cu. yds.	cu. yds.
J. D. McDougaid, Stockton.	cts.	cts.	cts.
T. B. Loodai, Broderick, Cai.		15½	151/2
San Francisco (Cai.) Bridge John Hackett, Oakland	Co.10 91/2	13% 12½	13%

PIPE SEWER.—Spring Lake, N. J.—We are informed that the following hids were received Nov. 1, for constructing pipe sewers and an ocean outlet; contract was awarded to P. H. Harrison & Sons, St. Paul Bidg., New York; H. C. Van Arsdale, Borough Cik.

curh, 27 cts.; sidewalk, 8 cts. C. W. Shafer, grading, 23 cts.; curh, 27 cts.; sidewalk, 8 cts. A. G. Strain, grading, 24 cts.; curh, 27 cts.; sidewalk, 8 cts. PAVING, SEWERS, ETC.—Tampa, Fia.—The board of public works awarded the contract, Oct. 25, 1898, for vitrified brick paying to the Coaldale Paving Co., at \$1.36 a sq. yd., according to reports.

ASPHALT PAVING.—Scranton, Pa.—We are informed that the Barber Asphalt Paving Co., New York, suhmitted the only hid, Nov. 3, for 400 sq. yds. of paving in Forest Court, as follows: Grading and paving, \$2 a sq. yd.; for furnishing and setting 6 x 12-in. curb, 53 cts. a lin. ft. Curh to he set in concrete. Joseph T. Phillips, Cy. Engr. PAVING AND SIDEWALKS.—Kansas Citx. Mo.—The

PAVING AND SIDEWALKS.—Kansas City, Mo.—The following contracts were let Oct. 25, 1898, for paving and sidewalks: A. R. Mense—Paving alley between Grand, McGee, 11th and 12th, brick, \$1.59. Tim Brosnaham—Grading alley between Mercler, Holly, 23d and 24th, 21

INDUSTRIAL NOTES.

the state of the s										- market	
Bids Received at Spring Lake, N.	J., Nov	7. 1, 189	8, for	Const	ructing	Pipe	Sewers	and a	an Ocean	Outl	et.
E Building cut- efe basin, efe.	Building jetty,	Section occan outlet, 640 ft.	18-in. p.pe, 810 ft.	15-'n, pipe,	12-in. pipe, 50 ft.	8-in. pipe. 767 ft.	Junction man- holes, 10 each.	Ord nary man- holes, 2 each.	Inspection holes, 4 each.	Ventiliators, 12, each.	Total.
A. P. Hamblin, E. Orange, N. J \$950	\$1,500	·400	BU. U.S	Du. 1.1	\$02	4.00	w. 5,00	\$30.0	LU U	S d.	. 0 . 5
P. H. Harrison & Sons, New York 900		1,900	.60	.55	.40	.26	25.00	22.00	5.10	3 00	6.941
Cailery & Murphy, Jersey City, N. J 1,000	1,275	2,500	1.10	1.00	.89	.50	22.00	20.00	8.00	2.00	9,626
Mack Paving Co., New York, N. Y1,297	1,147	2,470	.95	.85	.64	.57	47.00	40.00	8.00	11.00	9,49
E. R. Patterson, New York, N. Y1,000		1,600	1.00	.80	.60	.50	35.00	30.00		5.00	8 231
S. L. Bartholomew, Ashury Park, N.J. 919	1,094	1.220	.74	.65	.47	.39	35.00	30.00	6.00	6.03	6,712
J. Irving Hillpot, Bound Brook, N. J 1,093	1,660	3,300	.79	.70	.60	.42	32.00	30.00	7.50	3 50	9.706
Chandless & Dickinson	1,738	3,462	-1.20	1.00	1.00	.80	35.00	30.0	10.00	17.00	12,493
Geo. W. Rogers, New York, NY	1,300	2,350									

SHEET ASPHALT PAVING.—Hamilton,O.—The following bids were received Oct. 24, 1898, for sheet asphalt paving in 2d St., from Central Ave. to Black St.; in North 2d St. from High to Black St., and in South 2d St., from High St. to Central Ave.; the quantities are the totals for tha three streets, the bids for the different streets being the same; L. A. Dillon, Cy. Engr.:

Quantities.	Asphalt Paving Co.	Scharf Asp. Pav.	Construc-	
Limestone curb 15,440 lin. ft	.0.55	\$0.65	au.40	
Limestone gutter19,100 " "	.46	.50	.40	
Old curb redrsd, &c.11,000 " "	.15	.15	.04	
Cem. gutr and curb.14,700 " "	.60	.60	.55	
Cement curh 830 " "	.40	.40	.20	
Cement gutter 4,600 " "	.30	.30	.25	
Resetting basins 24 each	10.00	3.00	5.00	
Sheet asphalt46,600 sq. yds.	1.881	1.772	1.743	
Total limestone work		\$51,178	\$47,552	
Total cement work	49,245	46,598	45,298	

¹Burmudez Lake. ²Trinidad Lake. ²Trinidad Lake. ARTESIAN WELL.—Jamestown, N. Dak.—It is stated that the Rust Weil Machinery Co., Ithaca, N. Y., submitted the lowest hid, Nov. 1, 1898, for sinking an artesian weil 1,500 ft., at \$2.45 a ft. for a 16-in. weil, or at \$1.95 for a 4-in. well.

ASPHALE, DANGE

\$1.95 for a 4-in. well.

ASPHALT PAVING.—St. Joseph, Mo.—The following bids were received by the council Nov. 2, 1898, for asphalt paving in 7th St., from Olive to Rohldoux St.: Assyrian Paving Co., \$1.73 a sq. yd.; Hugh Murphy, Omaha, \$1.75; C. R. Hunt Co., \$1.75; Bermuda Asphalt Co., \$153; J. B. Smith & Co., Chicago, Iil., \$1.42.

WATER PIPE.—Spring Lake, N. J.—H. C. Van Arsda e, Borough Cik., writes us that the following bids were received Nov. 1 for laying water pipe, as advertised in Engineering News; contract was awarded to Wm. J. Smith.

cts. Wm. Trehey—Grading alley between Grove, Flora, Howard and 25th, 16 cts. W. H. White—Grading alley between Forest, Tracy, 13th and 14th, 27 cts. Mason Rowland—Curhing Harrison, 19th to 23d, 39,25 cts. Sidawalks—M Schoonmaker—East side, Brooklyn, 18th to alley south, brick, 8.9 cts.; Wyandotta, 17th to Southwest Boulevard, hrick, 8. cts.; west side Broadway, Ninth to Hopkins residence, granitoid, 19 cts.; east side Brooklyn, Belt railway bridge to 20th, granitoid, 17 cts. J. J. Armstrong—West side Woodland, 12th to 13th, hrick, 8.3 cts.; west—side Harrison, 18th to 19th, hrick, 8. cts. White & Redmon—East side Penn, 21st to Southwest Boulevard, brick, 8.4 cts. Missouri Sidewalk Co.—South side 30th, Michigan to Euclid, hrick, 8.99 cts. Bandera Flagstone Co.—South side 10th, Virginia to alley, west of Tracy, natural stone, 18 cts.

BROKEN STONE.—Baittmore, Md.—The following hids were received Oct. 19, 1898, by the county commissioners for furnishing and delivering hroken stone f. o. h. at stations on the line of the Baitimore & Lehigh R. R. in the 11th district: B. F. Pope, 5,000 perches at points no further than Hyde's, 98 cts. a perch; I. H. Peddicord & Son, 4,000 to 6,000 perches—three sizes, Nos. 1, 2, and 3—95 cts. a perch; R. W. Pearce, 60 cts. a perch, delivered on cars, county or buyer to pay freight; Geo. F. Narden, two sizes and top dressing, \$1.13 a perch; M. W. Offutt, 5,000 perches, three sizes, Nos. 1, 2, and 3, run of crusher, \$1 a perch.

LEVEE WORK.—Sacramento, Cal.—E. E. Leake, Comr. Pub. Wks, and T. B. Hali, a member of the Auditing Board to the Commissioner, have awarded to F. Lowery, of Sacramento, tha contract for strengthening a section of the riverhank near the old Chicory ranch, as follows: 600 sandbags, 20 cts. each; 550 stakes, 20 cts. each; 200 lbs. of wire, 5 cts. a to., 4, total \$1,740.

CEMENT.—Seattle, Wash.—Capt. Harry Taylor, U. S. Engr. Burke Bidg., Seattle, Wash.—received the following bods of co., Seattle, Wash., 5,500 bbls. (Condor brand), \$3.10 a kbl., if taken on arrival

THE GENERAL ELECTRIC CO., Schenectady N. Y., has established a sales office in the Templeton Bedding. Sait Lake City, Utah, in charge of Mr. B. E. Chubback.

WM. B. POLLOCK & CO., Youngstown, O., have he contract to furnish the steel plate work for the new bast furnaces in course of erection by the Ohio Steel Co., Youngstown, O. The contract is said to amount to about \$10,000.

MACEY, HENDERSON & CO., Heed Building, Philadelphia, have the contract, it is reported, for the additions to the Shawmont Pumping Station. Fairmount Park in that city, including a flue stack of brick and stone, 175 ft high. THE RICHMOND LOCOMOTIVE & MACHINE WORKS, Richmond, Va., has an order from the Canadian Pacific Ry. it is stated, for 12 special compound consolidated documents of the compound consolidated compound consolida

same railway.

WM. A. CHAPMAN & CO., 49 Westminster St. Providence, R. L., have the contract to build the concrete dam and power house for the development of a water power on the Susquehanna River, at Wrightsville, Pa., for the Martic Water & Power Co., Baltimore, Md.

THE HENRY DU BOIS CO., New York, has been incorporated by Messrs. Ahraham Du Bois, Chas. Du Bois, Henry N. Du Bois and Edwin W. Du Bois, with \$50,000 capital, to carry on the husiness of building, dredging and excavating on land and water.

THE ROCHESTER ELECTRICAL MFG. CO. Rephatics. ing on land and water.

THE ROCHESTER ELECTRICAL MFG. CO. Rochester,
N. Y., has secured contracts to equip the fire alarm and polica telegraph systems of Brookin, N. Y., and Paterson,
N. J., with the Milier patent cut-outs, for the protection of
the alarm and telegraph boxes. There are 1,200 fire alarm
boxes and 900 police telegraph boxes, it is said, in Brooklyn alone.

THE AMERICAN REDUCTION CO. PROCALLY

lyn alone.

THE AMERICAN REDUCTION CO., Pbiladelphia, and the Consolidated American Reduction Co. and the General American Reduction Co., New York, have had application made against them for the appointment of a receiver on behalf of Peoplea Bros. of the former city. The allied companies have heen engaged in the garbage disposal businness in Philadelphia and New York, but have falled to secure municipal contracts for the same.

cure municipal contracts for the same.

THE ROBE ENGINEERING CO., Amherst, N. S., is reported to have an order for two 300-HP, tandem compound engines to be direct-connected to dynamos for an electric railway in Australia. The company has also recently shipped a 300-HP, engine to England: three 250-HP, engine to the Isle of Man; three 125-HP, engines to Spain, and a 125-HP, engine to Newfoundland.

THE CARMAN-THOMPSON CO., Lewiston, Me., is reported to hava the following among other contracts: Springfield (Mass.) R. R., 3,000 HP, in bollers: Providence, R. I., railway station, three large engines and piping: St. John (N. B.), St. Ry., power house; Portchester (N. Y.) St. R.R., power house; B. Peck Co., Lewiston, Me., heating system.

THE F. C. AUSTIN MFG. CO., Harvey, Ill., is applying

THE F. C. AUSTIN MFG. CO., Harvey, Ill., is applying to its bending machines or buildozers an attachment recently invented by an employe, consisting of an adjustable form or die, by the usa of which 13 sets of separate forms for hending different shapes, we'gh only 166 lbs., while if applied to the machine in the old way, their weight would be many thousand pounds.

he many thousand pounds.

THE PITTSBURG BRIDGE CO., Pittsburg, Pa., through its New England agents, Collins & Norton, 33 Lyman St., Springfield, Mass., has received a contract from the Burgess Sulphite Paper Co., Berlin, N. H., to furnish a steel coal bunker with chutes to automatically feed its boilers, according to plans furnished by Mr. H. S. Ferguson, engineer, of Lewiston, Me. The company has also received contracts from the towns of Easton, Conn.; Williamsburgh, Mass., and Buckland, Mass., to build highway bridges.

bridges.

NEW COMPANIES.—Pasteurized Water Co., St. Louis, Mc.; \$3,000, with all paid in; Claude P. Crandali, Peter A. Connolly and J. M. Meyers.

Thackeray Incinerating Co., First National Bank Bldg., Jersey City, N. J.; \$100,000; commencing with \$1,000; to collect and incinerate ashes. garbage, etc.; Chas. Brusrston, Jersey City; F. W. Montgomery, 52 Broadway, New York; Lewis Perrina, Trenton, N. J.

Insulated Wire Co., 60 Grand St., Jersey City, N. J.; \$500,000, commencing with \$1,000; to sell insulated wire and other goods; Samuel B. Lawrence, 13 Astor Place, and John B. Summerfield, 62 Wall St., New York; Burnham C. Stickney, Elizabeth, N. J.

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. Bids Received at Sp	oring	Lake.	N. J	No	v. 1, 18	98, for	Laylı	ng Wate	er Pipe			
									*Fire	Set-		
		-Pi	pe-						hy-	ting	Pipes.	
Bidder. 10	0 in., 5	8-in	ti-in.	4n.,	-Gate	valves	etc.,	each-	drnts,	apcis,	8-in.,	
	610	5,830	4,307	9,310	10-in.,	8-in.,	6-in.,	4-in.,	36	16000	180	
	ft.	ft.	ft.	ft.	1.	7.	5.	19.	each.	lbs.	ft.	Total.
Daniel C. McManus, New York \$	0.78	0.62	\$0.47	\$0.34	\$26.00	\$21.00	\$14.50	\$10.50	\$29.50	\$0.02	\$1.45	\$11,368
Wm. J. Smith, Spring Lake, N. J		.50	.38	.26	25.90	18.50			22.00		.60	8,943
J. Irving Hillpot, Bound Brook, N. J		.63	.48	.32			11.05		22.50			11,193
Headley & Christie, Newark, N. J		.63	.47	.32	31.00	22.00	15.00		25.00		1.00	11,082
S. L. Bartholomew, Asbury Park, N.J	.67	.52	.39	.28	24.50	18.25	12.75		25.00	.02	1.00	9,504
	.71	.55	.42	.29	25.00	18.50	12.50		23.00		1.50	9,973
L. J. Richardson, Utica, N. Y		.57	.40	.27	21.00	17.00	11.00		23.50	.02	.25	9,549
S. B. Oviatt, Asbury Park, N. J.		.545		.30		20.00	15.00		24.00		1.20	9,966
Callery & Murphy, Jersey City, N. J	.90	.75	.61	.51	35.00	25.00	15.00	12.00	39.00	.020	4.00	15,334
an out of the standard disks		0 01		. Alam -	·lana				4			

*Setting. The 8-in. pipe includes discharge and distribution pipes

DREDGING.—Port Royal, S. C.—The following hids were received by the hureau of yards and docks, Washington, D. C., Nov. 12, 1808, for dredging at the Port Royal Naval Station: Geo. E. Field, Port Royal, S. C., item (1), \$1.80 a cu. yd.; (2) \$1.60; P. Sanford Ross, 277 Washington St., Jersey City, N. J., (1), \$1.45; (2), \$1.10; The Alabama Dredging & Jetty Co., R. Moore, Agent, Mohile, Ala., (1), \$1.80; (2), \$1.50. Item (1) being price a cu. yd. for material dredged and deposited on station, leveled and graded, and (2) being for material dredged and not deposited on station. The contract was let to P. S. Ross for item No. 2. The appropriation for this work is \$100,000. M. T. Endicott, Ch. of Bureau, Washington.

Washington.

WATER PIPE.—Vallejo, Cal.—Tha trustees received the following bids Oct. 24, 1898, for furnishing 1,000 ft. of 8 or 10-in., 1,000 ft. of 1-in., and 1,000 ft. of %-in. cast or wrought-iron water pipe: John Hellermann, 1-in. pipe, 7% cts. a ft.; %-in., 5% cts.; Miller, Sloss & Scott, 1-in., 6 cts.; %-in., 4% cts.; 3-in., 93 cts.; Crane Co., 10-in., 60 cts.; \$-in., 45 cts.; 1-in., 5 3/10 cts.; %-in., 3% cts.; Christin Froelich, 8-in., 77 cts.; 1-in., 6% cts.; %-in., 4.6/10 cts.

4 6/10 cts.

STREET IMPROVEMENT.—Los Angeles, Cal.—The following bids were received Oct. 25, 1898, for improving certain streets: De Long St., between Pico and 16th Sts.—A. B. Hogan, grading, 19 cts.; curb, 17½ cts. C. W. Shafer, grading, 24 cts.; curb, 15 cts. M. S. Cummings, grading, 27 cts.; curb, 17½ cts. A. G. Shain, grading, 22 cts.; curb, 14 cts. Tryon & Coverly, grading, 26 cts.; curb, 16 cts. 22d St., from Toberman to Union Ava.—Tryon & Coverly, grading, 30 cts.; curb, 29 cts.; sidewalk, 9 cts. E. W. Durreil, grading, 20 cts.; curb, 28 cts.; sidewalk, 8 cts. P. J. Richmon, grading, 23 ets.;

13,000 bbls. (Condor), \$2.85 if taken on arrival, duty unpaid. The latter bid was recommended for acceptance. Taylor, Young & Co., Portland, Ore., 5,000 bbls. (Josson brand), \$2.90 a bbl. if taken in 2,500 both. lots, duty unpaid. 5,000 bbls. (Josson) \$3.22 if taken in 2,500 lots, duty upaid. RECONSTRUCTING BOTTOM OF SEWER.—St. Louis, Mo.—The following bids were received Nov. 10, 1898, for reconstructing the hottom of the Mill Creek sewer, in all about \$92 ft.; the work will include the entire cost of timber and earth excavation, the construction, maintenance and removal of all fumes and dams, and the furnishing and depositing in place of all concrete necessary to form the invert, the plastering of the invert, and every other expense which may be necessary in doing the work. B. H. Colby, Sewer Comr.; all bidders of \$1. Louis: Robert Wycoff, \$20 a lin. ft.; Fruin-Bambrick Construction Co., \$19.20; McCully Stone Mason Co., \$18.50; James Black Masonry Construction Co., \$18.00; R. J. McDonald & Co., \$17.30; Hill-O'Meara Construction Co., \$15.15; Bambri k-Bates Construction Co., \$14.67; Skrainka Construction Co., \$13.90; H. F. Hemn., \$13.50; Patrick McIntyre, \$12.90; H. Shence Stark Masonry Construction Co., \$14.67; Skrainka Construction Co., \$13.90; H. F. Hemn., \$13.50; Patrick McIntyre, \$12.90; H. Ruecking & Co., \$11.20; Stiefel & Ruckert, \$10.90; Heman Construction Co. (accepted), \$9.45.
BRICK PAVING.—Hamilton, O.—The following bids were

man Construction Co. (accepted), \$9.45.

BRICK PAVING.—Hamilton, O.—The following bids were received Oct. 24, 1898, for vitrified brick paving in a number of streets: L. A. Dillon, Cy. Engr.: J. M. Quill, Rosseville block, \$1.35 a sq. yd.; Harris block, \$1.40; Athens block, \$1.45; Bolen block, \$1.50; name of brick not given, \$1.30; either cement, tar or asphalt filler. Aug. J. Henkel, Athens block, \$1.30, cement filler; \$1.31, tar and asphalt filler. These bids are for 24,800 sq. yds. in 23 tt., 15.100 sq. yds. in North 2d St., and 9,700 sq. yds. in South 2d St. Bids for remainder of work is as follows with total amount of quantities for the three streets: Limestone curb, 15,340 lin. ft.,

Mail Delivery Notice.

readers each week at the earliest possible moment. The largest binding and mailing establishment in New York hegins work on Engineering News early esch Wednesday evening, and all papers for Boston, Philadelphia and Washington are usually in the New York postoffice hy midnight; all Brooklyn and New York city papers by 3 o'clock-in ampie time for the first delivery Thursday morning. The entire edition, including foreign copies, is in the mail soon after 6 o'clock Thursday morning. If your paper is not received promptly we advise that you make a complaint to your local post-office offi-

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