Norton, Geo. H.; Street Cleaning, Refuse Disposal and Snow Removal. 177. Norwood Co. Opens Montreal Office. 139. Notable Engineering Conference—A†. 537. Nova Scotia Bill Introduced. 271. Nova Scotia Bill Passed. 483. Nova Scotia Power Commission†. 369. Nova Scotia Power Commission Awards. 405. Nova Scotia—Power Possibilities of; K. H. Smith. 230. Scotia Proven Inadequate Spillways*; K. G. Chisholm. 371.

0

Offensive Against Industry—The Niagara†. 602.
Officials—Rare Opportunity for Water Works Engineers and†. 581.
Offiset Increased Cost of Labor and Materials—Application of Engineering Principles to Water Works Operations to. 416.
Oil Fields of Alberta—Gas and. 198.
Oils and Carpet Costs—Road; J. A. Duchastel. 527.

527.
Ontario—Advisory Conference Committee on Engineering Legislation for Province of. 365.
Ontario During 1919—Road-Building in; George Hogarth. 260.
Ontario Fairly Treated—Says Eastern. 453.
Ontario Good Roads Association; 297.
Ontario Hydro-Electric Power Commission's Radial Railway Projects—Review of Present Status of.

Ontario-Maintenance of Roads in; W. A. Mc-

Ontario—Maintenance of Roads in; W. A. Mc-Lean. 293.

Ontario Municipalities Favor Hydro Radials. 435.

Ontario—Review of Road Legislation in; K. W. McKay. 304.

Ontario Section of American Society of Mechanical Engineers—Meeting of the. 186.

Ontario's Road-Building Program*; Hon. F. C. Biggs. 286.

Operating Experiences With Activated Sludge Process for Factory Wastes; George W. Fuller. 367.

opportunity for Water Works Engineers and Officials—Rare†. 581.
Oppose Bill—B.C. Surveyors. 271.
Opposes St. Lawrence Deep Water Route—New York State. 603.
Opporessors of the Poor**; J. G. Sullivan. 161.
Organization of the Construction Industry in Canada—Need for; J. P. Anglin. 227.
Organizing Provincial Highways Departments; A. E. Foreman. 549.

E. Foreman. 549. Osborne, Harry§. 332. Ottawa—Construction Industries Conference at.

212.
Ottawa Office for Association of Canadian Building and Construction Industry. 331.
Overlooked—Another One**; W. P. Brereton. 233.
Outlook for Hydro Radials—Good†. 602.
Outlook for Surveyors—The; J. R. Akins. 262.

Painchaud, F. Benoit; Steel Bridge Replaces
Batiscan Ferry* 348.
Palestine Built by Canadians—Three Bridges in*;
Major A.* P. Linton. 235.
Palestine—Water Supply of an Army Division
in*; J. E. Pringle. 219.
Paradis, Paul\$, 234.
Park Engineering*; Reginald B. Evans. 337.
Park, Toronto—Drainage of Exhibition*; Reginald
B. Evans. 401.
Patterson, Donald\$, 516.
Pavements—Asphaltic Concrete; W. H. Connell.
543.

Pavements—Mineral Aggregates for Bituminous; Wallace L. Caldwell. 111, 124. Paving in Towns and Villages—Street*; E. A. James. 277.

Paying Problems-A City's; Charles A. Mullen.

Pay One Per Cent.—Contractors to. 570.
Pearson, J. C.; New Development in SurfaceTreated Concrete and Stucco. 468.
Penetration Surfaces—Bituminous; A. B. Manson.

Penetration Surfaces—Bituminous; A. B. Manson. 294.

Period—The Construction; H. C. Anderson. 506.
Permanent Highway Construction—Some Advantages of; H. S. Von Scoyoc. 243.

Permanent Track Construction—Street Railway*;
C. C. Sutherland. 393.
Permits Show Large Increases—Building. 125.
Pictures of Frazil Formation—Moving. 232.
Pile Driving With Motor Lorry on the Salonica Front; Capt. L. S. Daynes. 139.
Pile Protection—"Cement-Gun" for. 514.
Pipe—Incrustation in Vancouver Sewer**; A. G. Dalzell. 260.
Pipe—Plain and Reinforced Concrete*; H. P. Heywood. 409.
Plain and Reinforced Concrete Pipe*; H. P. Heywood. 409.
Plains—The Soils of the Great; D. B. Dowling.

Plains-The Soils of the Great; D. B. Dowling.

Planning: A Survey—Housing and Town; H. L. Seymour. 499, 530.

Planning and Water Sheds—Regional; Thomas Adams. 262.

Planning By-Law-Saskatchewan Town. 47, Apr.

22.
Planning—Citizen Co-operation in Town Management and Town; Horace L. Brittain. 129.
Planning—Growth of Interest in Town; J. 185.
Planning—Housing and Town; James White. 347.
Planning—Surveyors and Town. 225.
Plans—To Raise Duty on Imported. 331.
Plant—Hydro-Electric Steam Reserve. 598.
Plants—Municipally Owned Asphalt**; R. R.

Plants—Municipally Owned Asphalt**; R. R. Barrett. 329.

Policy—Engineering Institute's Committee**; J. B. Challies. 473.

Policy—Ontario's "U.F.O." Highway. 166.

Pollution From Fire—Protection Systems†. 131.

Pond, Irving K.; Concrete: Its Use and Abuse.

A87.

Poor—Oppressors of the**; J. G. Sullivan. 161.
Power Co.—New Brunswick. 420.
Power Commission Awards—Nova Scotia. 405.
Power Commission—Nova Scotia†. 369.
Power—Conservation of Water†. 201.
Power Co. Obtain \$800,000 For Power Supplied Dominion Government. 186.
Power Development at St. Raphael, Que. 121.
Power Development—Bird's-Eye View of Queenston*. 123.
Power Development for Bridge River, B.C. 596.
Power Development—Nipigon River*. 502.
Power Development—Nipigon River*. 502.
Power Developments Near Halifax—Proposed*.
351.

251.

Power Franchise in Edmonton—Seeks. 163.

Power Investigation—St. Lawrence Navigation and. 488.

and. 488.
Power Possibilities of Nova Scotia; K. H. Smith. 230.

Power Production—Some Notes on; James White. 303. Power Project-Wendigo Lake Hydro-Electric 182.

Practical Application of Surface Area Method*; Roderick B. Young. 101. Practice for the Contractor—Code of. 363. President—Former G.T.R. Chief Now A.R.E.A.†.

Address of Retiring*; Carleton E. Davis. 587.

Pressure of Concrete Against Forms; E. B. Smith.

Pressure of Sand-Horizontal; Ponsonby Moore-

Pressure of Sand—Horizontal; Ponsonby Moore-Crosthwaite. 364.

Prices, Influence of Specifications and Competent Inspection on Bidding; H. S. Mattimore. 309.

Principles to Water Works Operations to Offset Increased Cost of Labor and Materials—Application of Engineering. 416.

Pringle, J. E.; Water Supply of an Army Division in Palestine*. 219.

Problems Confronting Surveyors; C. Fraser Aylsworth. 268.

worth. 268

Production—Some Notes on Power; James White. 303.

Profession Act-British Columbia's Engineering. Profession Act-New Brunswick's Engineering.

465

465.

Profession Retrograding?—Is the Engineering**;
Romeo Morrissette. 357.

Professional Conduct—Proper†. 560.

Professional Engineers—Act Incorporating the Manitoba Association of. 385.

Professional Engineers Organize Union?—Should.

281.
Program for Montreal Meeting—American Water Works Association's. 418.
Program for Roads' Convention. 491.
Program for the Convention of the American Water Works Association at Montreal—Final.

Water Works Association at Montreal—Final. 570.
Program—Ontario's Road-Building*; Hon. F. C. Biggs. 286.
Program—Saskatchewan's Bridge. 438.
Proportioning at Queenston—Concrete†. 492.
Protection of Wooden Bridges From Fire. 247.
Provincial Aid for Water Works? 420.
Provincial Boards of Health Design Sanitary Structures?—Should†. 113.
Provincial Hichway System—Financing A; A. W. Campbell. 557.
Provincial Highways Departments—Organizing; A. E. Foreman. 549.
Provincial Sanitary Engineers—Activities of; Fred. A. Dallyn. 109.
Public Demands Good Roads†. 349.
Public Utilities—The Future of. 147.
Public Utilities—The Future of. 147.
Public Works and "Economy"; S. Baker. 161.
Publicity—New Engineering. 186.
Pumping for Kingston Water Works—Electrical. 489.
Pumping Plant at Hamilton Starts. 420.

Pumping Plant at Hamilton Starts. 420. Purification—Development of Sewage**; S. H. Adams. 314. Adams.

Q

Quarrying and Crushing; T. V. Anderson. 339. Quebec Board of Health vs. Hull. 442. Quebec Bridge Report. 323. Quebec Health Board vs. Hull. 420. Quebec—Water Supply Statistics for; T. J. Lafreniere. 589.

Queenston-Chippawa Development-May Delay. 469. Queenston—Concrete Proportioning at†. 492. Queenston Development—Operating Data on Large Shovels at*; L. C. McLure. 470. Queenston—Labor Trouble at†. 492. Queenston Power Development—Bird's-Eye's View

R /

Radial Brick Chimney 300 ft. High*; J. G. Mingle.

Radial Brick Chimney 300 ft. High*; J. G. Mingle.

122.
Radial Railway Projects—Review of Present
Status of Ontario Hydro-Electric Power Commission's. 138.
Radials—Good Outlook for Hydro†. 602.
Radials—Ontario Municipalities Favor Hydro, 435.
Railwad Track—Stresses in. 479.
Railway and Waterway Transport—Interrelationship of Highway; Prof. Henry E. Riggs. 441.
Railway Bridges—Methods of Inspecting. 408.
Railway Permanent Track Construction—Street*;
C. C. Sutherland. 393.
Railway Projects—Review of Present Status of
Ontario Hydro-Electric Power Commission's
Radial. 138.
Railways—Development of. 174.
Railways—Development of. 556.
Ranney's Falls—Hydro-Electric Development at*.

457.

Railways—New Fuels on. 556.
Ranney's Falls—Hydro-Electric Development at*.
457.
Ransome—Ver Mehr Machinery Co., Ltd.; Drifting Sand Filters at Toronto. 233.
Rate Association—Hydro Uniform†. 429.
Ratings—Classification of Contractors By Standard; Leonard C. Wason. 498.
Reclamation Project—Sumas Lake*. 460.
Reconstruction—The British Engineer and†. 602.
Refuse-Burner—Concrete***; W. J. Galipeau. 339.
Refuse Disposal and Snow Removal—Street Cleaning; Geo. H. Norton. 177.
Regina and Moose Jaw Water Scheme—Saskatoon Looks Inquiringly Upon. 106.
Regional Planning and Water Sheds; Thomas Adams. 262.
Registration of Engineers—Alberta Bill for: 324.
Reinforced Concrete Design—Present Status of*; F. G. Engholm. 151.
Reinforced Concrete Design—Present Status of*; I. F. Morrison. 252.
Reinforced Concrete Pipe—Plain*; H. P. Heywood. 409.
Relation of Tractors and Trailer Traffic to Highway Design; H. Eltinge Breed. 510.
Remuneration of Surveyors†. 314.
Removal—New Method of Snow*. 437.
Renewals—Methods of Supervising Tie. 384.
Repairs Concrete Ship—"Cement-Gun." 450.
Report—Quebec Bridge. 323.
Research Council—Grants to. 128.
Research Laboratory—Advocates Provincial. 340.
Research in Great Britain—Fuel. 553.
Research Laboratory—Advocates Provincial. 340.
Research Tests—Standardization of†. 493.
Resources—Asks Architects' Position on Development of Canadian. 226.
Re-Surveys—A Plea For; E. T. Wilkie. 265.
Re-Surveys—A Plea For; E. T. Wilkie. 265.
Resources—Asks Architects' Position on Development of Canadian. 226.
Resources—Asks Architects' Position on Highway, Railway and Waterway Transport. 441.
River Power Development—Nipigon*. 502.
Rivers Case—St. Mary's and Milk†. 454.
Road Building in Ontario During 1919; George Hogarth. 260.
Road-Building Program—Ontario's*; Hon. F. C.
Biggs. 286.
Road-Building Program—Ontario's*; Hon. F. C.
Biggs. 286.
Road-Building—Wisconsin's Experiences in; A.
R. Hirst. 289.

Biggs. 236.
Road-Building—Wisconsin's Experiences in; A.
R. Hirst. 289.

R. Hirst. 289.

Road Construction—Annual Conference on. 216.

Road Construction—Concrete; H. E. Davis. 279.

Road Construction—Drainage in; G. R. Marston.

Road Legislation in Ontario—Review of; K. W. McKay. 304.
Road Location; R. T. Brown. 463.
Road Machinery; Arthur H. Blanchard. 521.
Road Oils and Carpet Coats; J. A. Duchastel. 527.
Road—The Cement Concrete; W. P. Near. 567.
Roads as an Aid to Agriculture—Good. 547.
Roads Association—Canadian Good. 575.
Roads Association—Ontario Good†. 297.
Roads Association's Convention—Canadian Good*. 539.
Roads at Winniper—Discussing Good†. 538.

539.
Roads at Winnipeg—Discussing Good†. 538.
Roads—Bituminous; Bruce Aldrich. 239.
Roads—Broken Stone; Geo. Hogarth. 529.
Roads Convention—Canadian Good. 216, 348, 428.
Roads Convention—Program For. 491.
Roads for Modern Transport Requirements; H. T.
Chapman. 509.

Chapman. 508.

Roads—How to Improve and Maintain Earth, Clay and Sand; A. R. Hirst. 553.

Roads in Ontario—Maintenance of; W. A. Mc-Lean. 293.

Roads in Ontario—Maintenance of; W. A. Lean. 293.
Roads—Public Demands Good†: 349.
Roads—Public Demands Good†: 349.
Roads—Time and Cost-Keeping on County; K. W. McKay. 307.
Roadways—Effect of Car Tracks Upon Traffic Capacity of; George W. Tillson. 406.