

THE

# Street Railway Journal.

---

INDEX TO VOLUME XXVIII.

---

July to December, 1906.

---

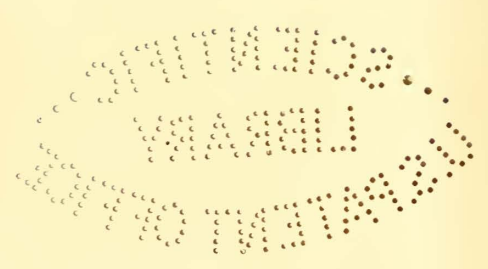
McGraw Publishing Co.,

114 Liberty Street,

New York.

84670

TF  
701  
T75



# INDEX TO VOLUME XXVIII.

(Abbreviations: \* Illustrated. c Correspondence.)

- A**
- Abbott, Arthur Vaughan.....1108
- Acceleration, Brooklyn Elevated, Train-Testing Apparatus [Ashc].....\*381
- Accident Claims Department: Agents Work of the Future [Harc].....906
- Bulletins, Connecticut Railway & Lighting Company [Johnson].....512
- Company's Liability.....980
- Handling Public Complaints [Beeler]...798
- Comments on.....863
- Methods of Management [Bradley].....905
- Policy toward the Public [Weh].....903
- Settlements [Farrell].....902
- Witnesses [Johnson].....293, 512
- Accidents: Atlantic City-Camden Line.....923, 957
- in Brooklyn, discussed by General Manager Calderwood.....153
- Chicago, Coroner's Report of.....242
- Classification of, in Chicago.....52
- Lake Shore Electric Railway.....244
- Los Angeles, Report on Causes of....\$96, 1166
- Power Plant, in Connecticut.....778
- Prevention of.....282
- in Chicago, discussed.....776
- getting on and off Cars.....56
- at Steam Road Crossings.....423
- Accountants' Association: Convention Papers
- Convention, President's Address.....769, 797
- Proceedings.....797
- Program of.....245
- Question Box.....812
- Comments on.....786
- Accounting: of Capital Expenditures [Young].....809
- Effect of Rate Bill on.....215
- Lackawanna & Wyoming Valley Railway. 168
- Storeroom, Chicago & Milwaukee Electric Railroad.....\*190
- Advertising Nuisances.....c193
- Comments on.....157
- Advertising for Traffic: [Brush].....\*331
- Booklet, Lexington & Boston Street Railway.....188
- Clinton, Ia.....\*192
- Groton & Stonington Street Railway....502
- Minneapolis.....\*68, \*508
- Newton, Mass.....430
- Poster to advertise Double-Deck Car, Minneapolis.....\*506
- Report of Committee [Harrington].....802
- Comments on.....782
- Twin City.....\*68
- Whalom Park, Fitchburg, Mass. [Bennett].....\*1054
- (See also Publicity.)
- Air Brakes (see Air Brakes).
- Air Compressors: (National).....\*387
- Governors for, Care of [Schlegel].....\*1181
- (Philadelphia A. B. & M. Company)....\*112
- Portable (G. E. Company).....\*347
- Albany: Newspaper Clippings, Method of handling.....\*509
- Profit-Sharing Plan.....230
- Allen, C. Loomis.....1140
- Allis-Chalmers Company, Annual Meeting of. 454
- New Air-Brake Department.....118
- American Railways Company, Annual Report of.....491
- American Street and Interurban Railway Association: Convention, Arrangements.....447, 492
- Banquet.....859
- Exhibits.....236, 570, \*819
- Comments on.....698
- Papers and Reports.....\*737, 798
- Comments on.....782
- Private Cars at.....859
- Proceedings.....766, 787
- Comments on.....781
- Program.....297
- Comments on.....283
- Social Side of.....863
- Executive Committee Meeting.....956
- New Officers.....736, 771
- Comments on.....782
- Officers and Executive Committee.....\*821
- Retirement of President Ely.....782
- Standard Rules, Data requested.....260
- American Street and Interurban Railway Accountants' Association (see Accountants' Association).
- American Street and Interurban Railway Claim Agents' Association (see Claim Agents' Association).
- American Street and Interurban Railway Engineering Association: Convention, Papers.....\*700
- Proceedings.....723
- Comments on.....697
- Question Box.....719
- Comments on.....876
- American Street & Interurban Railway Manufacturers' Association (see Manufacturers' Association).
- Ammeter, Shunting Kink [Schlegel].....\*480
- Ammeters, Portable (American).....\*111
- Anchor (Nagel).....\*194
- Annunciators, Station (American).....440
- Armature Bearings (see Bearings).
- Armature and Field Windings, Impregnating (Devine).....\*44
- Armature Protective Discs.....\*1055
- Armature Wagon used in Topeka.....\*141
- Armature Winding, Care Necessary.....c193
- Atlanta, Proposed Lines out of.....922, 994
- Atlanta, Griffin & Macon Electric Railroad Company, Incorporation.....392
- Atlantic City: Accidents in.....923, 957
- Open Cars.....\*415
- & Shore Line Railway, System of....\$85, \*895
- West Jersey & Seashore Railway (see Pennsylvania Railroad).
- Atlantic Coast Electric Railway, Open Cars.. \*449
- Augusta-Aiken Railway, Parlor Car for.....\*77
- Aurora, Elgin & Chicago Electric Railway, Express Handling by.....1065
- Australia, Railroad Commissioners wanted for.....865
- Auto-Bus, Operating Costs of the Modern [Vellguth].....972
- Automobiles (St. Louis Car Company).....1099
- Automotoneer (Garton-Daniels).....\*271
- Axle-Straightening Vise used in Canton....\*427
- Axles, Standardization of [Boyer].....\*518
- B**
- Babbitting Bearings (see Bearings).
- Baggage Rates in Ohio.....777
- Baker, C. F.....590
- Baking Oven (see Oven).
- Balance Weight System for Electric Cars, Sydney, N. S. W.....\*1060
- Ballast, Cost of crushing Stone for Philadelphia & West Chester.....330
- Baltimore, Car-Body Handling.....\*18
- Car for Handling Rails and Special Work \*14
- Derrick for Shop Yard at.....\*18
- Increase in Wages in.....153
- Power-Station Management, Changes....506
- Suburban Lines, Plans for.....1103
- United Railway & Electric Company, Re-financing.....150
- Baltimore, Washington & Annapolis (see Washington).
- Bath Construction in Galveston.....\*102
- Bearings: Babbitting, in Sioux City.....\*269
- Mold for (Columbia Machine).....\*1019
- Chuck for Turning, Des Moines, Ia....\*191
- Electrical Test for.....1115
- and Testing in Topeka.....\*140
- System of Classifying Sizes.....121
- Bell, Thomas K.....\*88
- Bells, Electric (Schwarze).....\*1021
- Belvidere, Ill., Single-Track, Reinforced-Concrete Bridge near.....\*343
- Benefit Association, Buffalo, Annual Report. 1168
- Montreal, Annual Report.....117
- Birmingham, England, New Power Station at.....\*1038
- Block Signals, Electric (U. S. E. Company). \*978
- Block-Signal System: Camden-Atlantic City Line.....\*943
- Ohio Interurban Railways.....\*619
- Permissive Blocking.....1171
- for Philadelphia & West Chester.....\*321
- for Philadelphia & Western (G. R. S. Company).....386
- Boilers (Franklin).....\*580
- Boone, Webster City & Interurban Railway Company, Organization of.....310
- Boston: Cars for Subway.....\*305, \*1159
- Dudley Street Terminal, Changes proposed.....420, 1106
- Elevated Division, Extension.....278
- Stations for Eight-Car Trains.....153
- Rail Corrugation.....\*1180
- Forest Hill's Terminal Plans, Development of.....1195
- Gas Engines in [Winsor].....\*707
- Increase of Wages in.....1026
- Comments on.....997
- Schedules and Traffic in.....1043
- Steel Underframe for Cars.....\*1159
- Transfers by Warrants.....1179
- Boston & Eastern Electric Railroad Company, Petition for Extension Rights.. 361
- Boston, Lowell & Lawrence Electric Road Hearing.....391, 776
- Boston-New York, Electric Railroad Project. 536
- Boston & Northern and Old Colony: Car House burned.....533
- Complaints, Treatment of.....448
- Old Colony, System redistricted.....141
- Trolley and Boat Trip.....296
- Boston-Providence Line, Plans for.....864
- Boston & Worcester Street Railway, Car Test 143
- Brake Rigging, Question of [Nicholl].....1097
- Brake-Shoes: and Brake Rigging, Uneven Wear of [Boyer].....\*103
- Cost of.....478
- in the South.....\*104
- Hanging, Inside vs. Outside.....959
- in Ohio.....635
- Standardization of by Engineering Association, Data Sheet.....145
- Desirability of.....496
- Discussion.....731
- Wear Unit for.....1077
- Wedge (Keystone).....\*579
- Brakes: Different European [Fox].....407
- Comments on.....395
- Brakes, Air: Long Island Railroad Electric Service [Smith].....\*226
- in Ohio.....635
- Valve and Governor for (National)....\*585
- (See also Air Compressors.)
- Brakes, Slipper (Brecknell).....\*892
- Braking: Comparison of Air and Electric [Scholtes].....431
- [Petit].....432
- Discussion on.....1048
- Systems for Heavy Cars [Graham].....\*475
- [Hunter].....c413
- [Williams].....476
- Comments on.....459
- Discussion on.....468
- Bridges, for Electric Railways [Schneider]. \*398, 441
- in Ohio and Indiana.....\*619
- Reinforced Concrete [Luten].....\*265
- Rolling, Lift [Kaudeler].....c1096

- Single-Track, Reinforced Concrete Bas-  
cule Type, near Belvidere, Ill. .... \*343
- South Bend & Southern Michigan Rail-  
way ..... \*1112
- Brooklyn: Accidents, discussed by General  
Manager ..... 153
- Additional Power Equipment for ..... 1139
- Benefit Association, Milan Gold Medal... 977
- Bridge, Loop Plans ..... 86, 511, 863, 1106
- Adoption of ..... 1025
- Mono-Rail Plans ..... 995
- New Buildings for Live and Track De-  
partments in ..... 1026
- Oiling of Roadbeds in ..... \*333
- Passenger Station at Jamaica ..... 1148
- Rapid Transit Company, Annual Report. 418
- Fare-Test Case ..... 277, 281, 309, 360, 453
- Problems, President Winters' State-  
ment ..... 1103
- Subsidiary Company's Quarterly  
Earnings ..... 1025
- Traffic during Mardi Gras Week ..... 569
- Transfers, Changes in Plan of issuing.. 84
- Transfer Troubles in ..... 1136
- Brooms, Device for filling Rotary (Colum-  
bia) ..... \*304
- Bowen, Frank H. .... 590
- Brush-Holder Inspection. Importance of  
[Schlegel] ..... \*374
- Buck, Richard S. .... 456
- Buenos-Aires, Semi-Convertible Cars for... \*1067
- Buffalo, Benefit Association, Annual Report.  
—Cold Spring Car House and Shops..... \*4
- Frontier Electric Railway Company, Or-  
ganization of ..... 279
- & Lake Erie Traction Company, Merger  
of ..... 994
- Track Construction in ..... \*99
- Burlington, Vt., Parks at ..... \*975
- Bus-Bar Insulator (Locke) ..... \*531
- C**
- Cables, Underground, Use of [Stott] ..... 705
- California, Street Oiling in ..... 238
- Camden-Atlantic City Line (see Pennsylvania  
Railroad).
- Camden: Interstate Railway Company  
changes Hands ..... 243
- & Trenton Railway, Semi-Convertible  
Cars ..... \*1066
- Campbell, R. S. .... 1075
- Canadian Street Railway Association, Meet-  
ing of ..... 1139
- Canton-Akron Railway, Improvements on... \*426
- Car Building (see Car Construction).
- Car Cleaning: and Inspection [Carver].... 36
- in Cleveland ..... 107
- in Ohio ..... 641
- Responsibility for ..... 495
- Vacuum vs. Compressed Air ..... 36
- Water Coolers ..... 248
- Car Construction: Car Podies, Dimensions of  
for City Service [Geron] ..... 478
- Fastening to the Trucks ..... 1077
- Low Mounting of ..... 1109
- Commutation and Brush Inspection  
through Trap Doors ..... 1032
- Double-Deck Car of Twin City Rapid  
Transit Company ..... \*506
- Long Island Railroad Electric Steel Cars  
[Smith] ..... \*216, 250
- by Milwaukee Electric Railway Company 292
- by St. Louis United Railways Company. 292
- Southwest Missouri Electric Railway.... \*93
- Steel Underframe, Boston ..... \*1159
- Car Design: and Dimensions in Ohio and In-  
diana ..... \*624
- Disfiguring the Interior ..... 1078
- and Equipment, Ohio ..... \*624
- Comments on ..... 540
- Steps, Height of, Report of New York  
State Committee on ..... \*471
- Width of ..... 1142
- [Geron] ..... 478
- Car Door Opener (see Door Opener).
- Car Equipment: Compressors for Air Brakes  
[Schlegel] ..... \*1181
- Economy in, Weights and Schedules  
[Anderson] ..... \*715
- Inspection of, in Ohio and Indiana ..... 641
- Testing, for Live and Grounded Parts.... 1009
- (See also Maintenance and Inspection.)
- Car Fires on the Street ..... 959
- Car Furnishings, Fiber (I. F. Co.) ..... 584
- Car Gates in Minneapolis ..... 533
- Car Heaters (see Heaters).
- Car Hoist: Baltimore ..... \*18
- New Orleans ..... \*377
- Car Houses: Buffalo ..... \*4
- Door, Electrically Operated ..... \*5
- Fire in Boston ..... 533
- Inspection Sheds of Long Island Rail-  
road Company [Smith] ..... \*258
- Ohio ..... \*651
- Telephones in ..... 365
- Car Inspection (see Car Cleaning and Main-  
tenance and Inspection).
- Car Painting (see Painting).
- Car Shops (see Repair Shops).
- Car Signs (see Destination Signs).
- Car Wattmeters (see Wattmeters).
- Car Wheels (see Wheels).
- Car Wiring, Long Island Railroad Cars  
[Smith] ..... \*253
- Cars, Blasting, in St. Louis ..... \*885
- Cars, Closed: Boston ..... \*1159
- Kansas City Western Railway ..... \*388
- Terre Haute ..... \*1160
- Topeka, Kan. .... \*1098
- Washington, D. C. .... \*531
- West Jersey & Seashore Division ..... \*348
- Cars, Combination: Erie Railroad Electric  
Cars ..... \*81
- Grays Harbor, Wash. .... \*1022
- Gulfport, Miss ..... \*239
- Hagerstown, Md. .... \*112
- Joliet, Ill. .... \*392
- Ohio River Electric Railway ..... \*45
- Shamokin, Pa. .... \*339
- Spokane, Wash. .... \*951
- Cars, Convertible, Syracuse ..... \*146
- Cars, Decorated, in Los Angeles ..... \*301
- Cars, Double-Deck, Twin City Rapid Tran-  
sit Company ..... \*504
- Cars, Freight and Express, Northern Texas  
Traction Company ..... \*1098
- Cars, Funeral, in Cleveland ..... \*299
- Cars, Gasoline (see Motor Cars, Gasoline).
- Cars, Linc (see Work Cars).
- Cars, Non-Combustible: Long Island Rail-  
road [Smith] ..... \*216, \*250
- Pennsylvania Railroad ..... \*270
- (Pressed Steel Car Company) ..... \*566
- Cars, Open: Asbury Park ..... \*449
- Atlantic City ..... \*415
- Vincennes, Ind. .... \*349
- Cars, Parlor: Augusta-Aiken Railway ..... \*77
- Detroit United Railways ..... \*565
- Cars, Pay-as-you-enter (see Fares, Collec-  
tion in Montreal).
- Cars, Semi-Convertible: Boston Subway.... \*305
- Buenos Aires ..... \*1067
- Camden & Trenton Railway ..... \*1066
- Chattanooga ..... \*979
- Houston, Tex. .... \*415
- Improvement in (Prill) ..... \*1020
- Kansas City ..... \*953
- Lake Shore Electric Railway ..... \*890
- Madison, Wis ..... \*78
- Memphis ..... \*1160
- Muskegon, Mich. .... \*1192
- Nashville, Tenn. .... \*448
- O'Leary Patents on ..... 1139
- Paducah, Ky. .... \*196
- Pikes Peak Railway ..... \*529
- Pittsburg ..... \*482
- South Walpole, Mass. .... \*1099
- Sunbury, Pa. .... \*483
- Valley Traction Company ..... \*147
- Walla Walla, Wash. .... \*1122
- Cars, Steel (see Cars, Non-Combustible).
- Cars, Test (see Test Cars).
- Cars, Vestibuled, for New York City ..... 1028
- Cars, Work (see Work Cars).
- Central Electric Railway Association, Meet-  
ing of ..... 242, 523, 1063\*
- Program ..... 420
- to consider Standardization ..... 453
- Central Pennsylvania Traction Company, An-  
nual Report ..... 278
- Cincinnati, Double Trolley discussed at  
Water Works Convention ..... 896
- Charleston & Summerville Electric Rail-  
way, Construction Specifications ..... 901
- Chattanooga, Semi-Convertible Cars ..... \*979
- Chester, W. Va., Rock Springs Park ..... \*404
- Chicago: Accidents, Distribution of ..... 52
- Prevention discussed ..... 242, 776
- Arnold Report, on Underground Conduit  
Construction and Subways ..... 84
- on Valuations ..... 1164
- Bids for lowering Tunnel ..... 52
- Cable Lines, Electrification of ..... 55, 86
- Electrification of Madison Street and Mil-  
waukee Avenue Lines ..... 362
- Elevated Railway Statistics ..... 778, 955, 1102
- Lake Shore & South Bend Railway, Plans  
for ..... 151, 278, 1163
- & Milwaukee Electric Railroad: Express  
and Freight Traffic Agreement ..... 1189
- Racine Division, Opening of ..... 414
- Store-Room Accounting ..... \*190
- Mueller Law Decision in ..... 452
- New York Electric Trunk-Line Plans.... 117
- Northwestern Elevated Railroad, Annual  
Report of ..... 451
- Novel Transfer Ticket used in ..... \*113
- & Oak Park Elevated Railway Company,  
Annual Report ..... 921
- Taxation ..... 207
- Traction Affairs... 116, 152, 155, \*207, 393, 452  
860, 863, 923, 953, 995, 1029, 1135, 1164, 1195
- Traffic Regulation attempted by Police... 1105
- Chico, Cal., Improvements proposed ..... 1169
- Cincinnati: Double Trolley considered by  
Water Works Association ..... 896
- Transfer Decision in ..... 956
- Claim Agents' Association, Address of Presi-  
dent ..... 736
- Convention, Papers and Question Box... 897
- Proceedings ..... 902
- Comments on ..... 869
- Question Box ..... 907
- (See also Accident Claims.)
- Cleveland: Alliance & Mahoning Valley Rail-  
road Company, Incorporation of ..... 1073
- Canton, New Limited Service to ..... 447
- Car Inspection in ..... 107
- Fares, Low ..... 40, 56, 154, 454, \*888, 956
- Franchises ..... 87, 115, 244, 279, 310, 373, 421  
493, 775, 865, 1027, 1072, 1135, 1165, 1190
- Funeral Car ..... \*299
- Northern Ohio Merger Prospects ..... 115
- & Southwestern Traction Company, New  
Repair Shops for ..... 773
- Power Plans of ..... 1031
- Thermit Rail-Welding, Variation in ..... \*110
- Waiting Stations ..... \*177
- Clinton, Ia., Armature Oven used in ..... \*234
- Method of throwing Switches from Car. \*172
- Street Railway System, Reconstruction of  
—Traffic Advertising at ..... \*192
- Close Shield, Sanitary (Brown) ..... \*306
- Coal Crusher, Motor Drive for (Allis Chal-  
mers) ..... \*304
- Coal-Handling Machinery, Greenwich, Eng.,  
Power Plant ..... \*19
- Coal Wagon with Removable Bed used in  
Milwaukee ..... \*128
- Colorado Electric Light, Power & Railway  
Association, Convention of ..... 533
- Columbia University, Night School at ..... 1074
- Columbus: Appleyard Lines, Final Report  
on ..... 207
- as a Convention City ..... \*591, 697
- Board of Trade, Acknowledgements from  
[Pirung] ..... c940
- Delaware & Marion Railway, Bucyrus  
Extension, Progress on ..... 1113
- Contract with Wells-Fargo Express  
Company ..... 1152
- Electric Railway Systems of ..... \*592
- Railway Company absorbs Lines ..... 85
- Scioto Valley Traction Company, Sys-  
tem of ..... \*600
- Concrete: as a Building Material ..... 1033
- Culvert, with Old Rails for Reinforce-  
ment, Ft. Wayne & Wabash Valley  
Traction Company ..... \*1035
- Mixing Machines, used in St. Louis.... 885
- Electric, Detroit ..... \*1145
- Pile Construction in Freight House, Bos-  
ton ..... 1048
- Piles for Power Stations ..... 926



- Great Britain: Depreciation in..... 1006  
—Lancaster & Yorkshire Electric Division, Operating Results ..... \*184  
—(See also London and other Individual Cities.)  
Groton & Stonington Street Railway Company, System of ..... \*498  
Gulfport, Miss., Combination Cars..... \*239
- H**
- Hagerstown, Md., New Cars..... \*112  
Hamilton, Ont., Strike in ..... 1073  
Hartford, Report on T-Rail..... 420  
Hartford & Springfield Street Railway, Winter-Resort Plans ..... 1072  
Headlights in Ohio and Indiana ..... 639  
Headlight Dimmer (Electric Light Shade Company) ..... 349  
Headlight Trip, Convenient ..... \*176  
Heaters in Ohio and Indiana ..... 638  
Heating, Discussion by Boston Elevated Company ..... 1123  
—Question of ..... 960  
Heavy Electric Traction: Paper on, at American Society of Civil Engineers..... 1062  
—Report to American Association..... 791  
—Report of Swiss Railroad Commissioners ..... 950  
—(See also Erie, Long Island, New York Central, Pennsylvania, etc.)  
High-Speed Roads, Current Collectors for.. 214  
High-Voltage, Direct-Current Work Abroad, 346, \*870  
Highway Crossings in Ohio and Indiana, Precautions at ..... \*618  
Hillsboro, Kimmswick & Northern Railway, Organization of ..... 85  
Historical, Electric Transportation, Evolution of [Stebbins] ..... 756  
Hoists, Electric (Yale & Towne)..... \*889  
Hope Webbing Company's Plant at Providence, R. I. .... 588  
Houston, Tex., Semi-Convertible Cars..... \*415  
Hudson & Manhattan Company, to issue \$100,000,000 Mortgage ..... 1138  
Hudson Companies' Tunnels, Electrical Equipment of ..... 467  
Hudson River & Eastern Traction Company, 918  
Hudson Valley Railway Company, Stock Litigation ended ..... 922
- I**
- Illinois Central Railroad, Tariff of Electric Rates filed ..... 1028  
Illinois Traction System to enter St. Louis.. 455  
Indiana: Columbus & Eastern Traction Company, Financing and Plans of..... 118  
— Mileage Book ..... \*1153  
— System of ..... \*645  
— Taking Over of Schoepf Properties.. 83  
—Map..... 603  
—Operating Results in ..... 923  
—Rate War in..... 449  
—Steam-Electric Competition in..... 18  
—Traction Situation in ..... 1121  
—Union Traction Company, New Terminal Building ..... \*552  
Indianapolis, New Castle & Toledo Railway, Equipment for ..... 194  
Indianapolis Traction & Terminal Company, Annual Report ..... 150  
Insulating Material (Indurated Fiber Company) ..... \*573  
Insulation for Coils (Harrison)..... 485  
—(Electrode) ..... \*571  
Insulators: Bus Bar (Locke)..... \*531  
—Testing High Tension..... \*233  
—Third-Rail (Anderson)..... \*78  
— Lackawanna & Wyoming Valley Railway ..... \*166  
Insurance: Meeting, Co-operative..... 1137  
—(See also Fire Insurance.)  
International Street & Interurban Railway Association: Milan Convention, Papers, \*431, \*478  
— Proceedings ..... 1045  
— Program ..... 279  
—New Officers of ..... 955  
Interstate Commerce Commissioner's Report on Railroads in United States..... 1073
- Interurban Railways: Electric Traction on, Discussion at International Convention 1045  
—in the Middle West, Progress of..... 497  
—in Ohio and Indiana ..... \*597  
—(See also Fares, Freight, etc.)  
Iowa: Assessments and Taxation, Decision on —Interurban Railways, Annual Report of.. 360  
—Joint Freight Rates since 1902..... 1122  
Ithaca, Cars for Scenic Lines in..... \*976
- J**
- Jackson, Prof. Dugald C..... 587  
Jacksonville, Fla., New Club House..... 440  
Jamestown, Va., Special Tickets for 1907 Exposition ..... 240  
Japan, Electric Railway Projects in..... 118  
Jersey City, Switches in Terminal Station.. \*1150  
Jim Crow Law in Montgomery..... 1075  
Joliet, Combination Cars for..... 302  
Joliet & Southern Traction Company, Construction Work begun on..... 1137
- K**
- Kalamazoo, New Line in..... 1163  
Kansas City: Railway & Light Company, Annual Report ..... 311  
—Semi-Convertible Cars for..... \*953  
—Split Gear and Special Bolts used in.... \*1115  
—Western Railway, Closed Cars..... \*388  
Keilholtz, P. C..... 156  
Keystone Brake Shoe Company, Organization of ..... 238  
Kingston Consolidated Railway, System of.. \*1080  
Kobusch Automobile Company, changes Hands ..... 278
- L**
- Lackawanna & Wyoming Valley Railroad, Operating Details of..... \*160  
—Recent Improvements ..... 1115  
Lake Charles Street Railway Company, Equipment for ..... \*576  
Lake Shore Electric Railway: Accident on.. 244  
—Fire Loss ..... 862  
—Improvements completed ..... 1194  
—New Limited Service on..... \*43, 85  
—Semi-Convertible Cars ..... \*890  
Lamp Guard (Hold Fast) ..... \*484  
Lamps, Incandescent (Franklin)..... \*586  
—Types of [Clifford] ..... 950  
—(See also Lighting of Cars.)  
Legal: Contingent Fees and Attorney's Liens 197  
—Contracts for the Use of Terminals..1902, 1116  
—Injuries to Dogs..... 1124  
—Interurban Railway Contracts with City Roads ..... 1092, 1116  
—“Last Clear Chance”..... 1180  
—Notes..... 197, 350, 380, 1124  
Lexington & Boston Street Railway Company, Traffic Booklet ..... 188  
Lighting of Street Cars..... 424  
Lightning Arresters: High-Tension [McKay] ..... \*525  
—Southwest Missouri Electric Railway.... \*95  
—Water Tank, for Street Railway Circuits [Ballou] ..... \*520  
Lima-Eastern Electric Railway, financed ... 276  
Lima & Toledo Traction Company, Opening of ..... 493  
Limited Cars in Ohio and Indiana..... 668  
Line Cars (see Work Cars).  
Lisbon Electric Tramways, Annual Report.. 52  
Liverpool, Report of Corporation Tramways for 1905 (London Letter)..... 358  
Locomotive, Electric: for Freight Haulage, Des Moines, Ia..... \*138  
— on Ohio River Electric Railway..... \*46  
— Toledo & Indiana Railway..... \*173  
—Inadvisable in New Washington Terminal ..... 1168  
—Simpson Tunnel ..... c108  
—Spokane & Inland Single-Phase Railway. \*295  
—Switching (American) ..... \*1066  
—Tests of the Ward-Leonard-Oerlikon.... \*1086  
—Three-Wire, Vienna ..... \*870  
London: Greenwich Power Station..... \*19  
—Letter..... 48, 205, 357, 532, 919, 1070  
—Metropolitan Railway, Electrification of Old Coaches on..... \*519  
—Royal Commission on Traffic, Report of. 23  
— Comments on ..... 3  
—Thames Embankment Electric Tramways \*831  
—Whitewashing a Tube Railway [Bridge].. \*106  
Long Island Railroad, Steel Car Construction [Smith] ..... \*216, \*250  
Long Island, Suffolk County Traction Company, Plans of ..... 51  
Los Angeles: Accident Causes, Report on... 896  
—Commission to investigate Street Car Wrecks ..... 1096, 1166  
—Electric Float Parade in..... \*301  
—New Cars for..... 1160  
—New Franchise Rights sought in..... 362  
—Pacific Railway Company, Improvement, 777, 1167  
Los Gatos, Cal., Peninsular Railway Company, Construction of..... 587  
Lowell & Fitchburg Street Railway Company, System of ..... \*507  
Low Voltage Trolley Circuit for Repair Shops..... 425, c\*949, c\*1095  
Lubrication: of Bearings in Ohio and Indiana ..... 637  
—Unit for Use of..... 1077
- M**
- Macallen Company, New Factory of..... 590  
Madison Wis., Concrete Track Construction in ..... \*78  
Maintenance and Inspection of Electrical Equipment, Report of Committee on... 718  
—Comments on ..... 782  
—of Old Types of Railway Motors..... 365  
—(See also Car Equipment.)  
Maintenance of Way, Ties, Poles and Posts, Purchase and Treatment of [Alderman] ..... \*703  
—Comments on ..... 785  
—(See also Track Construction.)  
Management, Relations with the Daily Press [Harrington] ..... 999  
—Relation with the Public..... 999  
Manufacturers' Association, Annual Meeting of ..... 860  
Maps: Central States, showing Electric Interurban Railways ..... 603  
—Columbus, Ohio ..... 595  
—Connecticut, showing Groton & Stonington Street Railway ..... \*498  
—East Liverpool and Wellsville Systems of East Liverpool Traction & Light Company ..... 334  
—Indiana ..... 603  
—Lackawanna & Wyoming Valley Railroad System ..... \*160  
—New York City, showing Present and Proposed Rapid Transit Lines..... 1010  
—Manhattan and Bronx, showing Density of Population ..... 1188  
— Transit Lines ..... 1184  
—Ohio ..... 603  
—Ohio and Indiana, showing Schoepf Properties ..... 646  
—Ohio Valley, showing Electric Railways between Pittsburg & Wheeling..... 335  
—Philadelphia & West Chester Traction Company Territory, Steam and Electric Lines ..... 316  
—Rutland Electric Railway Service..... 1000  
—Scioto Valley Traction Company's System —Stone & Webster Properties ..... 28  
—Toledo & Chicago Interurban Railway Route ..... 556  
—Twin City Rapid Transit Company, showing Lake Minnetonka Line..... 368  
—West Jersey & Seashore Railroad..... 923  
—West Virginia ..... 544  
—Wheeling Traction System, showing Old and New Lines between Mingo and Steubenville ..... 547  
Massachusetts Electric Companies, Annual Report ..... 1134  
Massachusetts Railroad Commissioners: Arrangements for Tests of Safety Devices, 778, 1136  
—Suggestions for Operation ..... 865  
Master Mechanic, Responsibilities of..... 1143  
McGuire-Cummings Company, Changes in Personnel ..... 493  
Memphis, Semi-Convertible Cars for..... \*1160



- Population: Distribution of, by Facilities of  
 Rapid Transit ..... 973  
 —Distribution in Manhattan and Bronx... 1189  
 —Effect on Traffic, in Ohio ..... \*683  
 —in Sparsely Settled Communities  
 [Roberts] ..... \*742  
 Portland, Ore., Increase in Wages in..... 207  
 —Railway Company, Annual Report of.... 308  
 —Terminal Plans ..... 1023  
 Pottsville, Pa., Improvement Plans ..... 421  
 —Company not affected by Real Estate  
 Failure ..... 393  
 Power, Rented, for Street Railways, Condi-  
 tions of Contract ..... 457  
 Power Consumption: Effect of Grades and  
 Stops on ..... \*322  
 —in Ohio and Indiana ..... 636  
 Power Stations: Birmingham, England..... \*1038  
 —Concrete Piles for ..... 925  
 —Construction Work in Established... 397  
 —Fire, Complications from, Ypsilanti,  
 Mich. .... \*974  
 —Fuel, Cost of ..... 396  
 —Greenwich, England ..... \*19  
 —Intake Tunnel at New Orleans..... \*1152  
 —Location of Pumps in ..... 247  
 —Milwaukee ..... \*124  
 —in Ohio and Indiana ..... \*642  
 —Piping, Flexibility in ..... 925  
 —Port Morris Station of New York Central  
 Railroad ..... \*460  
 —Waltham, Mass. .... \*1174  
 —Comments on ..... 1171  
 —Welfare Work in ..... 213  
 —West Jersey & Seashore ..... \*929  
 Power Transmission: and Generation in  
 Ohio and Indiana ..... \*642  
 —Comments on ..... 541, 542  
 —High-Tension Lines, Syracuse ..... \*73  
 —Line Construction for, in Ohio..... \*655  
 —Comments on ..... 541  
 —System of New York Central Railroad.. \*875  
 —Tables [Roberts] ..... 742  
 —Towers, Steel, Two Forms in New York  
 State ..... \*76  
 —Victoria Falls' Project ..... 1173  
 —Wire Locations on Pole Lines..... 314, 1032  
 Private Cars, Courtesy ..... 122  
 Profit-Sharing: in Albany..... 230  
 —on French Railways ..... 141  
 Promotion of Electric Railways [Holman].. 1154  
 Providence, R. I., Hope Webbing Company,  
 Plant of ..... 588  
 —Tunnel proposed in ..... 421  
 Prussia, New Regulations governing Con-  
 struction and Operation of Electric  
 Street Railways ..... 1067  
 Public Service Investment Company, Or-  
 ganization of ..... 361  
 Publicity: The Corporation and the Public  
 [Hulse] ..... 101  
 —in Roanoke ..... 1107  
 —Report of Committee on [Harrington]... 802  
 —Value of ..... 998  
 —(See also Advertising for Traffic.)  
 Pump Location in Power Plants..... 247  
 Purchasing Methods [Doerr] ..... 232
- R**
- Rail Bonds: (Brown)..... \*581  
 —Electrically Welded (E. R. I. Co.)..... \*1023  
 —Multi-Terminal (American) ..... \*1021  
 —Soldered (Clark) ..... \*1100  
 Rail-Bonding Tools (Chicago Pneumatic)... \*890  
 Rail Joint Company, Extension to Works... 590  
 Rail Joints: Cast-Welded in St. Louis... \*883  
 —in Ohio and Indiana ..... \*613, \*615  
 —Thermit-Welded in Cleveland ..... \*110  
 Rails: Corrugations in ..... 90, 91, c238, 367, c385  
 —Boston Elevated ..... \*1180  
 —Derricks and Drills, in Detroit..... \*1144  
 —Steel, Structure of [Job]..... \*1012  
 —Comments on ..... 998  
 —Wear of [Fowler] ..... c1094  
 Recording Instruments (Bristol)..... \*952  
 Rectifiers: Paris, Lyons, Mediterranean Rail-  
 way ..... 1052, 1079  
 Repair Shops: Advantages of Low-Voltage  
 Shop Trolley Circuit in.... 425, c\*949, c\*1095  
 —Buffalo, remodeled ..... \*4  
 —Clinton, Ia. .... \*180  
 —Columbus, Ohio ..... \*593  
 —Columbus, Ohio, Plan for..... \*663  
 —Compound Motors in ..... 282  
 —Elyria, Ohio ..... \*662  
 —Ohio ..... \*661  
 —Telephones in ..... 365  
 —Twin City Rapid Transit Company..... \*100  
 Repair Shop Practice: Canton-Akron Rail-  
 way ..... \*427  
 —Car Records, keeping ..... \*144  
 —Detroit ..... \*1090, 1114  
 —Des Moines, Ia. .... \*191  
 —Differential Voltmeter Plea..... 953  
 —Drafting ..... 395  
 —Foundry Work in the South..... \*104  
 —Grounding a Test Motor..... 946  
 —Similarity of Steam and Electric..... 997  
 —Sioux City, Ia. .... \*268  
 —Skid for bringing in Broken Axles, Des  
 Moines ..... \*192  
 —Ventilating Armature Ovens ..... 157  
 —Welding of Broken Joints by Thermit,  
 Montreal ..... \*1149  
 Rhode Island: Properties, Sale of..... 1072  
 —Securities Company, Sale of..... 1105  
 Roanoke Railway & Electric Company, Daily  
 Press Advertisements ..... 1107  
 —Improvements ..... 1166  
 Rochester: Concrete Subway in Genesee Val-  
 ley Park ..... \*104  
 —Corning, Elmira Traction Company, In-  
 corporation of ..... 243  
 —Erie Railroad Work (see Erie Railroad). 1028  
 Rome, Ga., City Railway System, Sale of... 1028  
 Rules: American Street and Interurban Rail-  
 way Association Request for Data..... 260  
 —New Prussian Regulations governing  
 Electric Street Railways..... 1067  
 —for Train Operation, Scioto Valley..... 605  
 Run Sheets: in Brooklyn [Ashe]..... \*1049  
 —Device for recording [Ashe] ..... \*378  
 —New York Rapid Transit Lines, for  
 Three Classes of Service ..... 1186  
 —Philadelphia & West Chester Traction  
 Co. .... \*322  
 —of Test Car on Rochester & Eastern Rail-  
 way ..... \*109  
 Rutland, Vt., Electric Railway at..... \*1000  
 Ryan, Thomas F. .... 1030
- S**
- Sand Drier (Dillman) ..... \*105  
 Sanders, Air, used in Ohio..... 640  
 —(Dayton) ..... \*303  
 Sanding Rails ..... 189  
 —and Sand Cars, Discussion on, New York  
 State Street Railway Association..... 473  
 San Francisco: Ocean Shore Railway graded  
 by Earthquake ..... 87  
 —Situation in..... 151, 308, 455, 1018, 1138, 1165  
 —Steel Cars for ..... \*566  
 —Strike in ..... 361, 392, 420  
 —Track Reconstruction Work in..... 108  
 San Jose & Santa Clara County Electric  
 Railroad, Prospectus of ..... 311  
 Schedules, Maximum Speeds on City and In-  
 terurban Railways [Krasa]..... 479  
 Schoepf Consolidations ..... 83, 118  
 —(See also Indiana, Columbus & Eastern  
 Traction Company.)  
 Schenectady, Speed Tests in..... \*1148  
 Seattle: Municipal Ownership Plan defeated,  
 452, 864  
 Shamokin, Pa., Combination Cars..... \*389  
 Signal Lights in Ohio and Indiana..... 640  
 Signal System, for Railroad Crossings  
 (Barnes-Greene) ..... \*347  
 —(See also Block Signal System.)  
 Simplon Tunnel, Electric Locomotives in... c108  
 Single-Phase Rectifiers in Europe..... \*1052  
 Single-Phase System: Milan Exposition.... \*227  
 —Spokane & Inland Railway..... \*294  
 —Toledo & Chicago Interurban Railway  
 [Hewett] ..... \*556  
 —Washington, Baltimore & Annapolis Rail-  
 way ..... \*564  
 —(See also Ward-Leonard Locomotive.)  
 Sioux City, Novel Wheel-Handling Device.. \*142  
 —Riverside Park ..... \*183  
 —Shop Kinks ..... \*268  
 —Track Work, with Concrete, Asphalt, and  
 Gage widening in..... \*300  
 Skid for bringing in Broken Axles, Des  
 Moines, Ia. .... \*192  
 Sleet Removal, Lacawanna & Wyoming  
 Valley Railway ..... \*167  
 Smith, Alva J. .... 210  
 Smoking on Cars..... 325  
 Spow Plow: Home-made in Clinton, Ia..... \*179  
 —Long Island Railroad Company [Smith]. \*257  
 Snow Removal, Discussion on, New York  
 State Street Railway Association..... 473  
 Snow Sweeper, Derrick and Work Car com-  
 bined (McGuire) ..... \*483  
 Society of Railway Club Secretaries, Annual  
 Session of ..... 75  
 South Bend & Southern Michigan Railway,  
 Recent Bridge Structures on..... \*1112  
 Southern Kansas Railway, Light & Power  
 Company, Proposed Line of..... 244  
 Southern Pacific Company to operate Ala-  
 meda System ..... 1072  
 San Jose Line, Electric Traction for..... 1136  
 —(See also San Francisco.)  
 Southern Railway, Steel Cars..... \*567  
 Southwest Missouri Electric Railway Im-  
 provements ..... \*92  
 Southwestern Traction Company, Direct-  
 Current replaces Three-Phase on..... 1194  
 Special Work, San Francisco, destroyed in  
 Concrete Cable Track..... 108  
 Speed Time Curves (see Run Sheets).  
 Spikes, Tests of Holding Power..... 429  
 Spitting on Car Floors..... 423  
 Splice Protector (National E. C.)..... \*1100  
 Spokane, Wash., Combination Cars..... \*951  
 —& Inland Single-Phase Railway..... \*291  
 Sprinkling Car (Brill) ..... \*894  
 St. Joseph, Mo., Sand Drier used in..... \*105  
 St. Louis Car Company, Capital increased... 1106  
 St. Louis: Concrete Reconstruction of Olive  
 Street Track in..... \*883  
 —Earnings in ..... 777  
 —Employment of Trainmen in..... 464  
 —Hillsboro & Southern Railway, Organi-  
 zation of ..... 85  
 —Merger ratified ..... 278  
 —New Line for ..... 243  
 —& Suburban Company, Change of Control  
 of ..... 51  
 —United Railways Company, Annual Re-  
 port ..... 150  
 —to build Cars..... 292  
 —Comparative Earnings for Six Months  
 Standardization: of Power Equipment,  
 Schoepf-McGowan Roads ..... \*645  
 —of Rails, Journals and Journal Boxes... 534  
 —Report of American Association Commit-  
 tee ..... 788  
 —of Engineering Association's Commit-  
 tee ..... 719  
 —Comments on ..... 782  
 —Some Risks of..... 366  
 —of Tread and Flange of Wheels..... 235  
 Starrett, M. G. .... \*1030  
 Statistics: Car Wheel Industry..... 267  
 —Distribution of Population by Facilities  
 of Rapid Transit ..... 973  
 —Earnings and Expenses Ohio Interurban  
 Roads ..... 683  
 —of Indiana Roads ..... 684  
 —Income and Operating Expenses per Car-  
 Mile for New York State Association  
 Roads except New York City ..... 486  
 —Interstate Commerce Commissioner's Re-  
 port on Railroads in United States.... 1073  
 —New York City Quarterly Statistics... 273, 1133  
 —Power-Station Tests at Waltham..... \*1178  
 —Street and Elevated Mileage, Cars and  
 Capitalization in United States and Its  
 Possessions and Canada ..... 296  
 —Use of Curves in [Pratt]..... \*810  
 Steel Ties in Buffalo..... \*99  
 Steps, Height of (see Car Design).  
 Steubenville Traction & Light Company.  
 Transfer of ..... 83  
 —(See also East Liverpool.)  
 Stone & Webster Organization, and Its  
 Properties ..... \*27  
 Stopping Device for Grades, New Jersey &  
 Hudson River Railway & Ferry Com-  
 pany ..... \*384





—[Wattmann] .....	435
Weed-Burner used on Toledo & Indiana Railway .....	*175
Welfare Work in Power Stations.....	213
Western Ohio Railway Company, Live Stock Carriage on .....	881
—Trolley Baseball League .....	145
Westinghouse Companies Managers' Meeting .....	921
Westinghouse Electric & Manufacturing Company, Annual Report of .....	243
Wheel Gage (Osmer) .....	*1100
Wheel Handling Device for Pit Work, Sioux City .....	*142
Wheel Industry, Statistics.....	267
Wheel Pit, for Single Trucks, Kingston Consolidated Railway .....	*1083
Wheel Press, used in Topeka.....	*140
Wheel-Shrinking Device used in Canton....	*427
Wheel-Tread Standard: .....	235
—Data Sheet of Committee.....	235
—Discussion of Central Electric Railway Association .....	523
Wheel Flanges, for Interurban Cars.....	c1006
Wheeling Traction System .....	*544
Wheels: Cast-Iron and their Chemical Composition [Andrews] .....	1088
—Diseases of .....	*878
—and Steel in City Service [Andrews] .....	*382
—in Ohio and Indiana .....	629
—Removal of [Andrews].....	480
—Steel vs. Chilled, Toledo & Indiana Railway .....	174
—Steel, Diseases of .....	*1007
—used in Ohio .....	629
—Wear and Tear of .....	289
—(See also Axles and Trolley Wheels.)	
Whistle, Air (G. E. Co.).....	*147
Whitewashing Machine used in London Tube Railway [Bridge] .....	*106
Winona Interurban Railway System.....	*962
Wire Glass for Vestibule Sash (St. Louis)....	*449
Wires, Transportation of High-Tension.....	1032
Wiring (see Car Wiring).	
Wisconsin Electric & Interurban Railway Association, Organization of.....	956
Witnesses [Johnson] .....	293
Wood Preservative (Carbolineum).....	*386, *893
Worcester Consolidated Street Railway Company, Annual Report .....	1104
Worcester Railways & Investment Company, Stockholders' Exchange Privilege .....	922
Work Car: in Baltimore.....	*18
—in Philadelphia .....	*1056
Wrench, Extension Socket used in Sioux City .....	*268
Walla Walla, Wash, Semi-Convertible Cars..	*1122

## Y

Y. M. C. A. Work: Application of to Electric Railways [Willis] .....	*15, 761
—at Memphis [Black] .....	1182
York, Pa., Street Railway Company, Extension Rights applied for .....	1194
Youngstown & Southern Railway Contracts..	151

## AUTHORS' INDEX

Alderman, C. A.—Tires, Poles and Posts....	*703
Anderson, E. H.—Economy in Car Equipments, Weights and Schedules.....	*715
Andrews, James—Cast-Iron and Steel Wheels in City Service.....	*382
—Cast-Iron Wheels and their Chemical Composition .....	1088
—The Removal of Car Wheels.....	480
Ashe, Sidney W.—How to Analyze Train Tests .....	1049
—Interurban Train Testing Apparatus.....	*378
Ballou, A. M.—Notes on the Water-Tank Lighting Arresters for Street Railway Circuits .....	*520
Beeler, John A.—Handling Public Complaints .....	798
Black, B. F.—Y. M. C. A. Work at Memphis .....	1182
Boyer, W. L.—Brake-Rigging and Uneven Wear of Brake-Shoes .....	*103
—Objects to be sought in Standardizing Axles .....	*518
Bradley, Henry C.—Methods of Management of Claim Departments .....	905
Brainard, F. K.—A Low-Voltage Shop Circuit .....	c1095
Bridge, Albert II.—Whitewashing a London Tube Railway .....	*106
Brinckerhoff, H. M.—Elevated Railways and their Bearing on Heavy Electric Traction .....	*737
Brooks, F. W.—Discipline of Trainmen....	763
Brush, George S.—Street railway Advertising .....	*331
Carver, D. F.—Car Inspection and Cleaning .....	36
Clark, C. H.—Ballast.....	*700
Coen, F. W.—Tickets and Rates.....	754
Damon, George A.—What is an Engineer-Constructor .....	*1015
De Burel, C.—Interurban Track Construction .....	433
Doerr, Charles T.—A Wide-Awake Purchasing Agent and His Methods.....	232
Dubs, M.—Track Construction in City Streets .....	*434
Farrell, A. J.—Quick or Delayed Settlements .....	902
Fowler, George L.—Tables of Car Positions on Curves .....	947
—The Wear of Steel Rails.....	c1094
Fox, John P.—Some European Brakes and their Value .....	407
Géron, H.—Dimensions of Car Bodies for City Service .....	478
Goodenough, Walter—Relative Economy of Turbines and Engines at varying Percentages of Rating .....	*712
Gough, Cale—Distribution of Motors on Trucks .....	*514
Graham, G. C.—Braking for Electric Cars...	*475
Hare, C. Willis—The Claim Agent's Work of the Future .....	906
Hewett, John R.—Toledo & Chicago Interurban Single-Phase Railway.....	*556
Holman, G. U. G.—Financial Promotion of Electric Railways .....	1154
Hooghwinkle, Gerald—Regenerative Control and the Bow Collector.....	231
Hulse, Edward P.—The Corporation and the Public .....	101
Hunter, Henry M.—Hand and Power Brakes .....	c413
Job, Robert—Steel Rails.....	*1012
Johnson, F. W.—Accident Bulletins.....	512
—Witnesses .....	293
Knowlton, H. S.—Electric Railway Conditions in Vermont .....	510
Krasa, E.—Maximum Speeds on City and Interurban Railways .....	479
Learned, C. E.—Selection of Trainmen.....	758
Luten, Daniel B.—Reinforced Concrete Bridges .....	*265
McGivney, J. R.—Uniforms and Badges....	762
McKay, C. R.—Lightning Arresters.....	*525
Nicholl, F. M.—Practical Views on Brake Rigging .....	1097
Petit, L.—Brake Systems for Electric Railways .....	432
Pratt, A. Stuart—The Use of Curves .....	*810
Price, W. G.—New Electric Motor Truck....	*79
Rasch, G.—Continuous vs. Sectionalized Overhead Systems .....	*436
Roberts, E. P.—Electric Railways in Sparsely Settled Communities .....	742
Schlegel, H.—Care of Air-Brake Governors..	*1181
—Grid Starting Coils .....	521
—Importance of Effective Brush-Holder Inspection .....	*374
—Practical Shunting Kink .....	*480
Schneider, C. C.—Bridges for Electric Railways .....	*398, 441
Scholtes, M.—Brake Systems for Electric Railways .....	431
Smith, W. N.—The Electric Car Equipment of the Long Island Railroad.....	*216, *250
Spring, Edward C.—Interurban Freight and Express .....	740
Stanley, A. H.—Leaks between Passenger and Treasurer .....	*799
Stebbins, Theodore—Some Notes on the Evolution of Electric Transportation.....	756
Stott, H. G.—Underground Cables .....	705
Vellguth, H.—Operating Cost of the Modern Auto-Bus .....	972
Vreeland, H. H.—Some Guiding Principles in the Adjustment of the Relations between Employer and Employee.....	26
Wattmann, M.—Wattmeters and other Recorders for Cars .....	435
Weh, F. W.—The Policy of the Claim Department toward the Public .....	903
Williams, H. S.—Different Systems of Brakes .....	477
Willis, E. M.—Application of Y. M. C. A. Work to Electric Railways.....	*15, 761
Winsor, Paul—Gas Engines.....	*707
Young, P. S.—The Accounting of Capital Expenditures .....	809
Ziffer, E. A.—Power-Gas Producers in Street and Interurban Railway Work .....	479