3re-S Electrician and Mechanic

Incorporating

Bubier's Popular Electrician, Established 1800 Amateur Work, Established 1901 Building Craft, Established 1908 The Collins Wireless Bulletin, Established 1908

EDITED BY

F. R. FRAPRIE, M.Sc. Chem. A. E. WATSON, Ph.D.E.E. M. O. SAMPSON

VOLUME XXIV January, 1912 --- June, 1912

SAMPSON PUBLISHING COMPANY

221 Columbus Ave., Boston, Mass.

grvard College Library.

May 22 25 Gift of

ELECTRICIAN AND MECHANIC

INDEX

Acheson, Edward G., Sc.D. Deflocculation	54
Aerial Navies Ready Aerials, the Use of Aluminum Wire for. Chas. Horton	250 203
Aeronautical Speed Records, New. Austin C. Lescarboura	374
Aeroplane Engine, A New	375 176
Alcohol as Fuel	202 234
Alexander Bill	349
Alternating Current and Electrolytic Rectifier. Edgar Bergholtz	357
Aluminum Wire for Aerials. The Use of. Chas. Horton	203
Astronomical Telescope, An Automobile, Points to be considered in purchasing an	57
"Chassis"	11
Bailey, F. L. Valve Setting	115
Bailey, F. L. Valve Setting Beals, Chas. A Review of the Crystal Detectors Bell Work in New Houses. W. F. Perry. Bergholtz, Edgar. Alternating Current and Electrolytic Rectifier.	412
Bergholtz, Edgar. Alternating Current and Electrolytic	
Big Postunes in Little Inventions	357 103
Biplane, G. A Three-circuit Inductive Tuning Apparatus	223
for Wireless Telegraphy	273
Bonvouloir, L. Concrete and Cement Bonvouloir, L. Mechanical Drawing—Part I	199 297
Bonvouloir, L. Mechanical Drawing-Part 11	381
Book Rack. Ralph F. Windoes Bradley, Robt. E. Advantages of a High-Spark Frequency	398 240
Bradley, Robt. E. A Simple Rule for Finding the Direc-	261
tion of a Current Bridge, W. W. Standard Threads	348
Bridge, W. W. Standard Threads Buckner, N. A New Hydro-Electric Plant Burgess-Wright Biplane and Hydroplane. Austin C.	291
Lescardoura	223
A. G. D. C. Repairing a Stripped Thread Causes and Prevention of Deterioration of Wireless De-	230
tector	117
Cement for the Laboratory, Handy Chassis. Some Types of Slide Valve Motors	240
Chassis. Points to be Considered in Purchasing an Auto-	
mobile Chauffeur, Rules for the	11 322
	245 338
Clausen H P A Handy Lighting Circuit	366
Cole, M. Metal Drilling—Part I Cole, M. Metal Drilling—Part II Commercial and Actual Interference Preventer, A. A. L.	325 385
Commercial and Actual Interference Preventer, A. A. L.	
Patstone Concrete and Cement. P. LeRoy Flansburg and L. Bon-	407
volioir	199 311
Concrete on the Farm, the Use of -(Concluded)	.389
Conduction of Electricity in Metals, The. Francis Hynd- man, B.Sc.	371
Construction and Operation of the Gasoline Engine used on	
Automobiles, The. A. E. Kline Construction of a Small Water Motor. B. F. Dashiell	148
Corner Cupboard, A Cost of Hydro-Electric Plants. George E. Walsh	52 131
Costumer. Ralph F. Windoes. Crocker, Ernest C. Causes and Prevention of Deteriora-	400
Crocker, Ernest C. Causes and Prevention of Deteriora- tion of Wireless Detector	117
tion of Wireless Detector Crocker, Ernest C. Electro-Chemistry—Part I. Ulti-	
Capitan Report C. Floaten Chamister Post II. Floa	191
 Crocker, Ernest C. The Nature and Production of Hert- sian Waves. Cutting Rubber with a Wet Knife. W. B. Morey. Cypress as a Wood for Craftsman Furniture. Ralph F. 	235
sian Waves	341
Cutting Rubber with a Wet Knife. W. E. Morey	310
Windoes.	270
Windoes Dashiell, B. F. The Construction of a Small Water Motor Decimal Point, Finding the Detectors, A Review of the Crystal. Chas. Beals Deflocculation. Edward G. Acheson Sc.D.	260
Detectors, A Review of the Crystal. Chas. Beals	412
DeLaval Steam Turbine, The. P. LeRoy Flansburg	54 16
Determination of the Percentage of Moisture in Steam,	231
Designing and Drawing of a Screw Propeller. Geo. Jepson	19
Device for Making Known a Short Circuit in a Gas-light- ing System. Fred H. Havn. M.R.	90
Detector Stand, Improved Mineral. P. Mertz	204
Dividing Plate for Lathe Headstock. How to Make a. A.	320
Detectors, A Review of the Crystal. Chas. Beals Deflocculation. Edward G. Acheson, Sc.D Determination of the Percentage of Moisture in Steam, The. P. LeRoy Plansburg Designing and Drawing of a Screw Propeller. Geo. Jepson Device for Making Known a Short Circuit in a Gas-light- ing System. Fred H. Hayn, M.E. Detector Stand, Improved Mineral. P. Merts Dianer Gongs, The Making of. Geo. F. Rhead Dividing Plate for Lathe Headstock, How to Make s. A. Hallett.	134

S vi 1520.395

Dry Cell Testing. W. B. Pritz Drysdale. Norman M. Testing Wireless Telephone Re- ceivers	48
Dynamos and Motors, Method for Obtaining the Efficiency	8
and Losses of Easily Made Chucks for Small Bench Lathe Edelman, Philip. A Tiny Wattless H-Core Transformer Efficiency Test of a Lead Storage Battery, The. A. Sprung, E.E.	293 245 162 35
Plantria Clash A Large	125 61
Electric Cocissor-Grinder, The F. J. Koch Electric Lighting in Private Installations, J. A. S Electric Water Tank Gauge, An. James P. Lewis Electricity on Railroads, The Growth of. Austin C. Les-	145 126
carboura Blectro-Chemistry-Part I. Ultimate Nature of Matter. Emet C. Crocker	25 191
Ernest C. Crocker Electro-Chemistry—Part II. Electricity and Electrical Conduction. Ernest C. Crocker. Electroplating, The Future, Present and Past of. Chas.	235
H. Proctor	295
Enamels, Lead in. Engineering Laboratory Practice. P. LeRoy Flansburg.	270
Part III—The Ericsson Hot Air Engine Part IV—The DeLaval Steam Turbine Part V—The Determination of the Percentage of Mois-	80 165
Part VI-The Measurement of Water by means of	231
	307 402
Part VII-The Pelton Wheel Bricsson Hot-Air Engine, The. P. LeRoy Flansburg Etched Pipe Rack. Ralph F. Windoes Experiences in Wireless Telephoning. Austin C. Lescar-	80 44
boura. Ewing, Frank M. Mutilators of Telegraph and Telephony Fernery. Ralph F. Windoes.	277 76 268
Fisher, T. C. The Planimeter	91 329
Fitting Hinges. W. J. Horner Flansburg, P. LeRoy with L. Bonvouloir. Concrete and	184 199
Flansburg, P. LeRoy The DeLaval Steam Turbine The Determination of the Percentage of Moisture in	165
Steam The Ericsson Hot-Air Engine Measurement of Water by Means of Nozzles and Wires,	231 70
The Pelton Wheel	307 402
Steam Engine Testing. Flansburg, P. LeRoy with L. Bonvouloir. Mechanical Drawing—Part I. Brawing.—Part II. Drawing—Part II.	1
Drawing—Part I. Flansburg, P. LeRoy with L. Bonvouloir. Mechanical	297
	381 413
Law and the Titanic Disaster. Frozen Automobile Radiator. N. M. Howard	130 348
	90
Boston. Gasoline Engines. Some Types of Slide Valve Motors. Chassis. Gasoline Engine used on Automobiles, The Construction	241
Gasoline Engine used on Automobiles, The Construction and Operaton of. A. E. Kline	148
Gas-Lighting System, Device for Making Known a Shore Circuit. Fred H. Hayne, M.B	96 267
 Gas-Lighting System, Device for Making Known a Short Circuit. Fred H. Hayne, M.E. Glass Tubing, How to Cut. Howard Tucker	4
	25
in the World W. J. H. Glue and How to Use It	264 4
 Grozier, Thos. H. The Smallest Paper Making Machine in the World. W. J. H. Glue and How to Use It	301
	335 134
Hand Somering in the Machine Shop Stuart & Harlow	328 366
Handy Lighting Circuit, A. H. P. Classen	328
cuit in a Gas-lighting System Heath, ChasHow to Make a Horisontal Sun Dial	96 87
cuit in a Gas-lighting System Heath, Chas. How to Make a Horisontal Sun Dial Hechier, Dr. W. The Latest Types of Mercury Converter Hertzian Waves, The Nature and Production of. Brnest	9
C. Crocker. High-Spark Frequency, Advantages of a Robert B. Bradley	341 240

Home Craftsman, The. Ralph F. Windoes.	
Btched Pipe Rack	- 44
Buched Pipe Rack. Humidor Sering Tray	44
Serving Tray	107 107
Watt Basket Penery Pate Rack Cypress Wood for Furniture	268
Plate Rack	268
Cypress Wood for Furniture	270
Jarumere Stand	303
Sconce	303 398
	400
	184
	203
How to Make a Dividing Plate for Lathe Headstock. A.	
Hallett How to Make a Horizontal Sun-Dial. Chas. Heath	134
How to Make a Horizontal Sun-Dial. Chas. Fleath	87 367
How to Make a Horizontal Sume Dial. Chas. Heath How to Make and Install a Stationary Vacuum Cleaning	307
System. H. M. Nichols	248
logand N. M. Prozen Automobile Radiator	130
umidor. Ralph F. Windoes	44
Hydro-Electric Plant, A New. N. Buckner	291 131
Hydro-Electric Plants, Cost of. George E. Walsh	223
Humidor, Ralph F. Windoes Hydro-Electric Plant, A New. N. Buckner Hydro-Electric Plants, Cost of George E. Walsh Hydroplane, The Burgess-Wright. Austin C. Lescarboura Hydoman, Francis, B.Sc. The Conduction of Electricity	220
in Metals	371
in Metals Ignition and Ignition Methods. Roger B. Whitman Intimate Theatre, The. C. L. Hagen	82
Intimate Theatre, The. C. L. Hagen	301
Evenuons, Big Fortunes in Little	103 303
Jarvis H A Safaty Gate for the Stairs	31
Ispan, Geo. Designing and Drawing of a Screw Propeller Lepson, Geo. Designing and Drawing of a Screw Propeller Lerosene as an Engine Fuel. James A. King Ling, James A. Kerosene as an Engine Fuel Links for the Home Craftsman. Ralph F. Windoes Links for the Home Craftsman. Ralph F. Windoes Line, A. E. The Construction and Operation of the Gaso- Mine A. E. The Construction and Operation of the Gaso-	19
Kemp, H. D. Variable Condenser	340
Kerosene as an Engine Fuel. James A. King	377 377
Eking, James A. Kerosene as an Engine Fuel	377
Thinks for the Home Craitsman. Raiph F. Windows	303
line Engine Used on Automobiles	148
hine Engine Used on Automobiles Koch, F. J. Electric Scissor-Grinder, The	61
The Highest Wireless Station on Larth	207
Wireless Station which Works at 100,000 Volts, A New.	415
The Tesia Steam Turbine	317 247
Lamp. A Study. C. H. Sampson	360
Lamps, A Study. C. H. Sampson Lamps, New Metallic Filament. G. S. Merrill Lamps, Recent Developments in the Manufacture of In-	227
Lamps, Recent Developments in the Manufacture of In-	
candescent Electric. J. A. Randall	187
Largest Electric Sign in the World, The. L. E. Zeh	60
Lathe Work: Milling Attachments-Part IV. "Sigma".	41 217
	35
Leclanche Cells, Improved	173
Lees, P. C. Cutting a Skew Gear for 2 H.P. Gas Engine.	97
Leclanche Cells, Improved	374
New. Burgess-Wright Biplane and Hydroplane, The Experiences in Wireless Telephoning. The Growth of Electricity on Railroads.	223
Experiences in Wireless Telephoning	223 277
The Growth of Blectricity on Railroads	25
	126
	174 290
Locomotives, The Oddest Electric. George Frederic Strat-	
ton	287
Lyle, W. S., Jr. A Simple Electric Lock	290
Machinery, New and Second-Hand. H. W. H. Stillwell.	323
Man-Carrying Kites in Winsless Service Frank C. Perkins.	373 59
ton Lyis, W. S., Jr. A Simple Electric Lock Machinery, New and Second-Hand. H. W. H. Stillwell Magnets, Natural. Wm. A. Murray Man-Carrying Kites in Wireless Service. Frank C. Perkins, Measuring an Electrical Current Mechanically. Jas. A.	59
Seager	265
Sechanical Drawing-Part I. P. LeRoy Plansburg	297
lechanical Drawing—Part II. P. LeRoy Flansburg	381
derowitz Wm G Practical Operating Faults of the Al-	9
ternating and Direct Current Motor	253
Cerrill, G. S. New Metallic Filament Lamps	227
lertz, P. Improved Mineral Detector Stand	204 325 385
tetal Drilling-Part I. M. Cole	325
fetallic Wilsment Lamos New G.S. Merrill	383 227
lethod for Obtaining the Efficiency of Dynamos and	
Motors. A. Sprung, E.E.	293
Liller, Howard S. A 100-Watt Step-Down Transformer	73
Lilling Attachments. Sigma	217
Idern Substitute for the Apprenticeship System, The. Ralph F. Windoes	397
Innonlane. The New Military Antoinette	62
Innre. E-GW. D. NEXT FEW IGHTS WIII LCHOIG ALL ARGS III	
Inventions	316
Inventions Iorry, W. E. Cutting Rubber with a Wet Knife Iorris, M. C. A Switchboard for Experimenters	310
Loss Morthern Wireless Station in the World The	370
Later Construction of a Small Water. B. P. Dashiell	~~*
	263
lost Northern Wireless Station in the World, The lotor, Construction of a Small Water. B. F. Dashiell lotor, Practical Operating Faults of the Alternating and Direct Current. Wm. G. Merowitz	263

-

Motors and Generators, Tests of Direct Current. Howard M. Nichols	~~
Moving Picture Marvels	92 195
Murray, Wm. A. Natural Magnets	373 76
M. Nichols Moving Picture Marvels. Murray, Wm. A. Natural Magnets. Mutilators of Telegraphy and Telephony. Frank M. Bwing New Wireless Law, The. Frank Roy Fraprie, S.M., F.R.P.S.	
Next Ten Years will Eclipse all Ages in Inventions. Ed-	413
New Wireless Law, The. Frank Roy Fraprie, S.M., F.R.P.S. Next Ten Years will Eclipse all Ages in Inventions. Ed- ward B. Moore Nichols, H. M. How to Make and Install a Stationary Vacuum Cleaning System Tests of Direct Current Motors and Generators. Paper Making Machine in the World, The Smallest. Thos. H. Grozier	316
Vacuum Cleaning System	248
Tests of Direct Current Motors and Generators Paper Making Machine in the World The Smallest	. 92
Thos. H. Grozier Patstone, A. L. A Commercial and Actual Interference	264
Preventer	407
Pattern-Shop Wrinkles, Some. J. A. S.	38
Perkins, Frank C. Man-carrying Kites in Wireless Service	402 59
Parisone, A. L. A Commercial and Actual Interference Proventer	380
Perry, W. F. A Quick Shaft Repair	267
Philippine Artesian Wells. Monroe Wooley	194 124
	259 226
Printing Prames, Restoring. G. F. Rhead Picture frames, Restoring. G. F. Rhead Planimeter, The. C. W. Webber and T. C. Fisher Plate Glass, Cutting Plate Rack. Ralph F. Windoes Practical Operating Results of the Alternating and Direct	329
Plate Rack. Ralph F. Windoes	105 268
Practical Operating Faults of the Alternating and Direct	253
Planimeter, The. C. W. Webber and T. C. Fisher Planimeter, The. C. W. Webber and T. C. Fisher Plate Glass, Cutting Plate Rack. Ralph F. Windoes Practical Operating Faults of the Alternating and Direct Current Motor. Wm. G. Merowitz Pritz, W. B. Dry Cell Testing Proctor, Chas. H. The Future, Present and Past of Elec- troplating	48
Proctor, Chas. H. The Future, Present and Past of Elec- troplating	295
Pront and Loss. Bug Returns in Electric Circuit, F.	
Webster Pulleys—Part I	13 109
Pulleys—Part I Pulleys—Part II Randall, J. B. Recent Developments in the Manufacture	169
 Kathali, J. B. Recent Developments in the Manufacture of Incandescent Electric Lamps. Recent Developments in the Manufacture of Incandescent Electric Lamps. J. E. Randall Repairing a Stripped Thread. A. G. D. C. Rhead, G. F. Restoring Picture Frames. The Making of Dinner Compa 	187
Recent Developments in the Manufacture of Incandescent Electric Lamps. J. E. Randall	187
Repairing a Stripped Thread. A. G. D. C.	230
The Making of Dinner Gongs	259 320
Rheostat, How to Make a. H. W. H. Stillwell.	361
J. A. S. Electric Lighting in Private Installations	345 145
 Knead, G. F. Kestoring Picture Frames. The Making of Dinner Gongs. Rheostat, How to Make a. H. W. H. Stillwell. Richmond, H. B. A Wireless Telegraph Receiving Set. J. A. S. Electric Lighting in Private Installations. Some Pattern-Shop Wrinkles. Seager, Jas. A. Measuring an Electrical Current Mechanically. 	38
Seager, Jas. A. Measuring an Electrical Current Me- chanically	265
Sampson, C. H. A Study Lamp.	31 360
Sconce. Ralph F. Windoes.	303 41
Screw Propeller, Designing and Drawing of. Geo. Jepson.	19
Secor, H. Winfield. X-Ray Apparatus of Today Sending Second-class Mail by Freight	156 284
Serving Tray. Ralph F. Windoes	284 107 177
Seventy-Five Ft. Pole and Electric Light Marks the Center	1//
of Population of the United States, A. Frank C. Perkins	380
Shaft Repair, A Quick. W. F. Perry	267
Sigma. Lathe Work: Milling Attachments-Part IV	41 217
Silent Language of the Sawmills	244
Robert E. Bradley	261
Skew Gear for 2 H.P. Gas Engine, Cutting a. F. C. Lees Slide Rule. The. C. W. Webber	97 251
Some Things Worth Knowing. H. W. H. Stillwell	258
 b) Formation of the United States, A. Frank C. Perkins. Shaft Repair, A Quick. W. F. Perry. Show Card Writing. Sigma. Lathe Work: Milling Attachments—Part IV Simple Rule for Finding the Direction of a Current, A. Robert B. Bradley. Sikew Gear for 2 H.P. Gas Engine, Cutting a. F. C. Lees. Sikew Gear for 2 H.P. Gas Engine, Cutting a. F. C. Lees. Side Rule, The. C. W. Webber. Some Things Worth Knowing. H. W. H. Stillwell Some Things Worth Knowing. H. W. H. Stillwell Spitzbergen's Wireless Station. Spitzbergen's Wireless Station. 	241 208
Sprung, A., E.E. The Efficiency Test of a Lead Storage Battery	35
Standard Threads. W. W. Bridge	348
Steam Engine Testing. P. LeRoy Flansburg Steel Pen Making	1 178
Stillwell, H. W. H. How to Make a Rheostat	361
Method for Obtaining the Efficiency and Losses of Dy- namos and Motors. Standard Threads. W. W. Bridge Steam Engine Testing. P. LeRoy Plansburg Steel Pen Making Stillwell, H. W. H. How to Make a Rheostat Lathe Screw Cutting. New and Second-Hand Machinery. Some Things Worth Knowing Stratton, George Frederic. The Oddest Electric Loco- motives.	41 323
Some Things Worth Knowing.	257
motives	
motives	262
Hairis Harris Harrisontal. Chas. Heath Sun Dial, How to Make a Horisontal. Chas. Heath Switchboard for Experimenters, A. M. C. Morris Telephone, How to Make a Useful House Telephone vs. Telegraph. Frank M. Ewing	335
Switchboard for Experimenters, A. M. C. Morris	87 370
Telephone, How to Make a Useful House	367 372
Telephone vs. Telegraph. Frank M. Ewing	225

3

Digitized by Google

1

ELECTRICIAN AND MECHANIC

Telescene. An Astronomical	57
Telescope, An Astronomical Tesla Steam Turbine, The. Felix J. Koch	317
Testing Oil for Household Use	234
Testing Oil for Household Use Testing Wireless Telephone Receivers. Norman M.	
Drvadale	8
Drysdale Tests of Direct-current Motors and Generators. Howard	-
M. Nichols	92
Thomas, H. L. Another Galena Detector	348
Timing Fast Trains	280
Titanic Disaster, The. Frank Roy Fraprie S.M., F.R.P.S.	413
Transformer, A Tiny Wattless H. Core. Philip Edelman	162
Transformer, A 100 Watt Step-Down. Howard S. Miller.	73
Transformer, The Oscillation Richard U. Clark	338
Tracker Howard How to Cut Glass Tubing	267
Turbine. The Simplified	197
U.S. Naval Wireless Telegraph Stations and their Service	
to Shipping	119
Turbine, The Simplified U.S. Naval Wireless Telegraph Stations and their Service to Shipping	
H. M. Nichols	248
Valve Setting. F. L. Bailey	115
Variable Condenser. H. D. Kemp	340
Walsh, Geo. E. Cost of Hydro-Electric Plants	131
Waste Basket. Ralph F. Windoes	107
Water Motor, Construction of a Small. B. F. Dashiell.	263
Water Tank Gauge, An Electric. James P. Lewis	126
Webber, C. W. The Planimeter	329
The Slide Rule	251
Webster, F. Profit and Loss. Big Returns in Electric	
Circuit	13
Whitman, Roger B. Ignition and Ignition Methods	82
Windoes, Ralph F. Book Rack	398
Costumer	400
Etched Pipe Rack	44
Fernery	268

Humidor	44
Jardiniere Stand	303
Kinks for the Home Craftsman	305
The Modern Substitute for the Apprenticeship System.	397
Plate Rack	271
Sconce	303
Serving Tray	107
Waste Basket	107
Wireless, A Three-Circuit Inductive Tuning Apparatus for.	
G. G. Blake	273
Wireless, Improved Mineral Detector. P. Mertz	204
Wireless, The Use of Aluminum Wire for Aerials. Chas.	
Horton	203
Wireless Apparatus, New	136
Wireless Detectors, Causes and Prevention of Deterioration	117
Wireless Equipment on Ocean Passenger Steamers, Regu-	
lations Governing	17
Wireless Messages from Spitzbergen	123
Wireless Novices, Navy to War on	272
Wireless Station on Earth, The Highest. Felix J. Koch.	207
Wireless Station Which Works at 100,000 Volts, A New.	
Felix J. Koch. Wireless Telegraph Receiving Set. A. H. B. Richmond	415
Wireless Telegraph Receiving Set, A. H. B. Richmond	345
Wireless Telegraph Stations and their Service to Shipping.	119
Wireless Telegraphy: A Commercial and Actual Inter- ference Preventer. A. L. Patstone	407
Wireless Telegraphy, A Three-circuit Inductive Tuning	407
Apparatus for. G. G. Blake	273
Wireless Telephoning, Experiences in. Austin C. Les-	213
carboura	277
Wooley, Monroe. Philippine Artesian Wells	124
World's Best Lighted Tower Clock, The. Felix J. Koch.	247
X-ray Apparatus of Today. H. Winfield Secor	156
Zeh. L. E. The Largest Electric Sign in the World	60

. . .

QUESTIONS AND ANSWERS

INDEX

Aerial	1725	Mold
Aerial, Indoor		Moto
Aerials, Wireless		Moto
Alternating Current Motor		Moto
		Moto
		Pater
	7155	
		Perp Phas
Detecty Charging		Pum
		Quen
		Quen
		Slide
		Smal
Condenser		Solen
Condensers		Sparl
		Sparl
		Store
Detector Connections		Stors
Detector Minerals		Swite
Dry Batteries	1779	Teles
Dynamo Design	1773	Teles
Dynamo Design	1803	Teler
Electric Locomotive Engineer		Tesla
Electrolytic Rectifier		Tesla
Electromagnet		Train
Electroplating		Tran
Electroplating		Tran
		Tran
Fleming Oscillation valve Detector		Tran
Fly Wheel Engine	1775	Wire
Generator, A.C.,		
		Wire
Hardwood Floor	1//0	Wire
"Henry," The	1/1/	Wire
	1776	Wire
Induction Coil, 1702, 1732, 1748, 1751, 1769, 1772, 1774;	1/83	Wire
Loss of Voltage	1/43	Wire
		Wire
Magneto Generator	1718	Wire

Molding	. 1719, 1	
Motor-Boat		1714
Motor Design Motor for Vacuum Cleaner, ½ H.P	. 1800, :	1801
Motor for Vacuum Cleaner, ½ H.P		1715
Motor, Reciprocating		1749
Patents		1750
Perpetual Motor		1729
Phase		1770
Pump		1733
Quenched Spark		1724
Quenched Spark Gap		1705
Slide Wire Bridge		1739
Small Dynamo	. 1720, 1	1721
Solenoid		1734
Spark Coil.	. 1737,	1757
Spark Coil, Bight-Inch		1712
Storage Batteries		1802
Storage Battery	. 1716,	1740
Switchboard		1741
Teleautograph		1760
Telegraph	. 1713,	1728
Telephone Receiver		1779
Tesla Coil		1795
Tesla Transformer		1763
Train Lighting		1742
Transformer	, 1727,	1756
Transformer Construction		1794
Transformer Control		1746
Transformer Design		1799
Transformer, Loose-coupled		1731
Transformer, Loose-coupled Transformer, Wireless Open-Core		1723
Transparent Cement Wireless,		1709
Wireless	. 1791.	1792
Wireless and Batteries		1789
Wireless Diagram	1	1738
Wireless Set, Diagram for	1	1754
Wireless Swinging	1	1797
Wireless Telegraphy		1796
Wireless Telephone	1	1767
Wireless Transmitting Station with Induction Coil.	1	1787
Wireless without an Aerial		1758

4

Digitized by Google