

Cumulative Index

— *to* —

WESTINGHOUSE

Engineer

with

Index to Authors

— *for* —

Volume I	1941
Volume II	1942
Volume III	1943
Volume IV	1944
Volume V	1945
Volume VI	1946
Volume VII	1947
Volume VIII	1948
Volume IX	1949
Volume X	1950

Published by
Westinghouse ENGINEER
Pittsburgh, Pa.

SUBJECT INDEX

Abbreviations

WN. What's New!
SR. Stories of Research

A

Accelerometer, crystal. SR. Feb. 1943. p17; WN. Sept. 1944. p158; Mar. 1947. p56.
Adjustable-speed drive. See Speed control.
Agriculture, industrial, Agro-industry. Florida Everglades. H. Odishaw. May 1946. p66-72.
Air circuit breaker. See Circuit breaker.
Air cleaner
cleaning of Precipitron. WN. Nov. 1943. p136.
dust removal principles. C. A. Scarlott. May 1942. p46-50.
flyash. Mar. 1945. p33; Jan. 1946. p7.
home, Precipitron. WN. Nov. 1950. p253.
model, Precipitron. SR. July 1949. p122.
oil mist. C. A. Scarlott. May 1943. p42-5; Jan. 1944. p13.
Precipitron, applications. Jan. 1944. p13.
Precipitron in textile mill. WN. May 1950. p153.
railway cars, developments. Jan. 1945. p23; Jan. 1946. p8.
welding fumes. C. H. Allen. July 1945. p120; WN. May 1944. p96.
See also Lamp, *fluorescent*, coating; Iron-ore separation.
conditioning
biological research. WN. Mar. 1950. p125.
commercial, developments. Jan. 1946. p31; Jan. 1948. p27.
development. Jan. 1949. p27.
stored vessels. WN. May 1949. p78.
war applications. Aug. 1943. Inside-front cover.
See also Heat pump; Refrigeration.
cooled transformer. See Transformer.
raft
a-c electrical system. J. D. Miner. Sept. 1945. p148-53; Jan. 1944. p7, 9, 10.
automatic pilot. WN. Mar. 1948. p63.
cargo hoist. WN. Mar. 1950. p124.
d-c 24-volt electrical system. J. D. Miner and B. O. Austin. Sept. 1950. p212-6.
engine torque. SR. July 1944. p119.
launching, Electropult. Sept. 1946. p160-1; Jan. 1947. p22.
power supply, d-c. J. C. Cunningham and H. E. Keneipp. Mar. 1946. p57-61.
power systems. Jan. 1948. p15.
window de-icing. Jan. 1948. p8.
windshield test. May 1943. p45.
wingfold actuators. WN. Mar. 1950. p125.
See also Brake; Brush; Circuit breaker; Commutation; Generator; Gyroscope; Instrument; Jet engine; Jet propulsion; Motor; Radio; Relay; Turbine; Wind tunnel.
raft carrier. See Elevator.
handling, Silentvane and Turbovane fans. WN. Mar. 1950. p126.
lane. See Aircraft.
port
equipment, packaged. Jan. 1944. p11.
wind indicator, smoke. WN. Sept. 1944. p159.
See also Lighting.
y. See High-temperature alloy; Magnetic material; Metal.
Weather Approach Lighting. See Lighting.

Altimeter. Jan. 1945. p12.
Amplifier
radio, Symmetron. WN. Sept. 1949. p155.
See also Magnetic amplifier.
Anacom. See Calculator.
Analog computer. See Calculator.
Analyzer. See Calculator.
Angstrom, defined. Nov. 1943. p117.
Appliance
Disney movie. WN. Nov. 1945. p174.
See also references under the specific appliance.
Approach-angle indicator. See Lighting.
Arc blow. See Welding.
Arc furnace. See Furnace.
Arc welding. See Welding.
Asbestos-Fosterite. See Insulation, electrical.
Atom. See Nuclear physics; Particle accelerator.
Atom bomb. See Nuclear energy.
Atomic physics. See Nuclear physics.
Atomic power. See Nuclear energy.
Atomizer. See Nozzle.
Atom smashing. See Nuclear physics; Particle accelerator.
Author. See p14-8.
Automatic reclosing. See Circuit breaker.
Aviation. See Aircraft; Airport; Jet propulsion; Lighting; Turbine.
Axial-flow compressor. See Compressor.

B

Bacteria control. See Lamp.
Balance-beam regulator. See Regulator.
Balancer
balancing, dynamic, low-speed. WN. Nov. 1941. p95.
electronic, microbalancer. Jan. 1946. p8; Jan. 1947. p19.
Banking. See Distribution system.
Barrier-layer rectifier. See Rectifier.
Battery charger, saturable reactor. WN. May 1949. p79.
Bearing
cleaning. Jan. 1947. p18.
molded, marine. SR. Mar. 1945. p64.
testing. SR. Mar. 1944. p57.
See also Bearing tester; Lubricant.
Bearing tester, magnetic type. SR. Nov. 1941. p74.
Beneficiation. See Iron.
Bergius process. See Coal.
Betatron. See Particle accelerator.
Beverage cooler. See Refrigeration.
Binocular, production. WN. May, 1943. p71.
Biography. See p19.
Biplane Marker. See X-ray.
Blackout. See Lighting.
Blade. See Turbine.
Blower, steam-driven. Jan. 1945. p18.
Bomb
Hydro-bomb. Sept. 1946. p140.
See also Nuclear energy.
Book review
Electrical Transmission and Distribution Reference Book. WN. May 1942. p63; WN. Nov. 1950. p252.
Gas Turbines for Aircraft. F. W. Godbey and L. A. Young. WN. Mar. 1950. p124.

Book review (continued)
Power Capacitors. R. E. Marbury. WN. Nov. 1949. p174.
Silent Sentinels. WN. Mar. 1950. p127.
Transformer Principles and Practice. WN. May 1950. p153.
Boric-acid fuse. See Fuse.
Boron nitride. See Lubricant.
Brake, aircraft motor type. Jan. 1945. p15.
Brazer
heating, resistance, portable. Jan. 1946. p30.
transformer, portable. Jan. 1945. p23.
Brazing
Phos-Copper. WN. July 1950. p191.
radiant furnace, principles and practice. A. K. Phillippi. May 1945. p84-9.
stainless steel. SR. Mar. 1949. p59.
Brickmaking. See Heating.
Broadcasting. See Radio.
Brush
aircraft motor. Jan. 1944. p7.
high-altitude. H. M. Elsey. Sept. 1945. p144-7; SR. Aug. 1943. p81; Jan. 1947. p3.
Bug bomb. See Insect control.
Bus. See Trolley coach.
Bus-differential protection
air-core coupler. WN. Feb. 1942. p26.
autotransformer. WN. Aug. 1942. p86.
performance. E. C. Wentz and W. K. Sonnemann. Feb. 1942. p28-31.
simplified with air-core couplers. E. L. Harder. May 1942. p43-5.
Bus duct, developments. WN. Sept. 1949. p157.
Bushing. See Condenser bushing.

C

Cable
supports, glass fiber. WN. Aug. 1943. p104.
See also Switching.
Cadmium. See Lamp.
Calculating board. See Calculator.
Calculator
analog computer. Jan. 1947. p20.
analog computer, improvements and uses. D. L. Whitehead. Nov. 1950. p235-9.
description of a-c calculating board. H. A. Travers. July 1944. p111-4.
mechanical transient analyzer. G. D. McCann and H. E. Criner. Mar. 1946. p49-56; Jan. 1946. p31.
network calculator for utilities. WN. May 1950. p156.
review. July 1944. Inside-front cover.
special-purpose. Jan. 1948. p32.
synchronous-motor. WN. Nov. 1947. p190.
types and principles. G. D. McCann and E. L. Harder. Nov. 1948. p178-83.
Camera
diffraction camera, high-temperature. SR. Mar. 1948. p44.
research. SR. Mar. 1949. p58.
Capacitor
automatic-switching control. WN. Aug. 1941. p63.
case finish. WN. Nov. 1944. p191.
d-c. Jan. 1947. p13.

- Capacitor (continued)**
 high-frequency. W.N. Aug. 1941. p62; SR. Mar. 1944. p57.
 history. May 1948. Inside-front cover.
 insulation. SR. Sept. 1944. p143.
 motor starting. M. A. Hyde and R. E. Marbury. May 1944. p70-3.
 oscillations in welding. R. E. Marbury. Nov. 1943. p126.
 portable. W.N. Aug. 1941. p64.
 series, applications. W.N. Mar. 1949. p50.
 series, principles and applications. A. A. Johnson. July 1948. p106-11; A. A. Johnson. Sept. 1948. p155-6.
 shunt, industrial applications. R. E. Marbury. May 1948. p84-9.
 See also Book review; Insulation, electrical; Motor; Relay; Welding.
- Capillarity**, review of principles. May 1945. Inside-front cover.
- Carbon brush**. See Brush.
- Carrier current**. See Power-line carrier.
- Cascade transformer**. See Particle accelerator.
- Casting**
 precision. H. W. Giesecke. Nov. 1946. p180-2.
 precision, turbine blades. Jan. 1947. p15.
- Cattle Dome**. See Mine.
- Cathode**. See Tube.
- Cathode ray**. See Oscillograph.
- Cathodic protection**, water heater. Jan. 1947. p3.
- Ceramic**. See Dashpot; Insulation, electrical.
 Chemistry, micro. SR. May 1948. p83.
- Chesapeake & Ohio**. See Locomotive.
- Chipper motor**. See Motor.
- Circle diagram**, for power lines. C. F. Wagner and G. D. McCann. Aug. 1941. p57-60.
- Circuit breaker**
 comparison, oil and air. M. H. Hobbs. July 1947. p98-102.
 developments. Jan. 1946. p21; Jan. 1947. p27.
 reclosing, single circuit. H. N. Muller and W. W. Parker. Mar. 1945. p60-3.
 review. July 1947. Inside-front cover.
 single-pole operation. J. E. Hobson and H. N. Muller. Feb. 1942. p23-5.
- air**
 aircraft. W.N. Sept. 1945. p141.
 aircraft, development. Jan. 1949. p27.
 arc-furnace. W.N. Nov. 1947. p190.
 compressed-air. W.N. May 1942. p62.
 distribution transformer. Jan. 1948. p8.
 high-current, railway. Jan. 1946. p21.
 high-voltage, compressed-air. B. P. Baker. Feb. 1943. p8-10.
 low-voltage. Jan. 1949. p10.
 panelboard. W.N. Aug. 1943. p103; W.N. May 1945. p94; W.N. May 1948. p94.
- oil**
 automatic reclosing for rural distribution. W.N. Aug. 1942. p86.
 developments. Jan. 1945. p6.
 Grand Coulee tests. Jan. 1948. p3.
 high-capacity, development. Jan. 1949. p9; W.N. Mar. 1950. p124.
 See also Condenser bushing; Fuse; Laboratory; Recloser.
- Circuit interruption**
 principles. July 1947. Inside-front cover.
 See also Circuit breaker; Fuse; Recloser.
- Coach**. See Trolley coach.
- Coal**
 gasification and liquefaction. C. A. Searlott. Sept. 1947. p143-9.
 See also Shovel.
- Coast Guard**. See Marine.
- Coca Cola**. See Refrigeration.
- Cold**. See Cryogenics; Hilsch tube.
- Cold room**. See Laboratory.
- College laboratory**. See Power plant.
- Color**, industrial greys. W.N. Nov. 1946. p188.
- Color television**. See Television.
- Combustion**
 research, miniature jet. SR. May 1948. p82.
 study. Jan. 1948. p29.
 See also Nozzle.
- Communication**. See Microwave; Power-line carrier; Radio; Television.
- Commutation**
 aircraft at high altitudes. H. M. Elsey. Sept. 1945. p144-7; SR. Aug. 1943. p81; Jan. 1947. p3.
 direct-current, review. Sept. 1945. Inside-front cover.
 movies. W.N. Nov. 1945. p175.
 See also Brush.
- Commutator**
 inspection of. W.N. Aug. 1943. p102.
 See also Insulation.
- Compressed air**. See Circuit breaker.
- Compressed-air windshied test**. See Aircraft.
- Compressor**, axial-flow, principles. A. J. Ponomareff. Mar. 1947. p40-6.
- Computer**. See Calculator.
- Condenser**. See Capacitor; Steam.
- Condenser bushing**
 manufacture, dielectric heating. Mar. 1946. p34.
 oil-impregnated. W.N. Feb. 1943. p40.
 review of principle and development. May 1944. Inside-front cover.
 sealed type. H. J. Lingal and W. G. James. May 1944. p66-9; Jan. 1945. p4; Jan. 1947. p8.
- Conservation of energy**. See Nuclear energy.
- Conservation of materials**. See Material; Tin.
- Construction**. See Manufacturing methods.
- Contact**, non-bounce. W. V. Johnson. May 1942. p60; W.N. May 1941. p29.
- Contact lamp**. See Lighting.
- Contour forming**. See Machine tool.
- Control**
 mid-century review and forecast. L. R. Ludwig. Jan. 1950. p70-9.
 See also Crane; Elevator; Hoist; Line-starter; Machine tool; Regulator; Servomechanism; Speed control; Welding.
- Controlled-atmosphere generator**, for metal treating. C. E. Peck. Nov. 1948. p162-6; W.N. May 1941. p29; Jan. 1949. p24.
- Copper**
 silver-bearing. Jan. 1947. p13.
 See also Manufacturing methods.
- Copper-fin motor**. See Motor.
- Copper-oxide rectifier**. See Rectifier.
- Core material**. See Magnetic material.
- Corona**, prevention in rotating machines by Coronox. C. F. Hill, L. J. Berberich, and J. S. Askey. Aug. 1941. p43-7.
- Coronox**. See Corona.
- Corrosion**
 oxidation research. SR. Nov. 1947. p186.
 oxygen-inhibited oil. Jan. 1947. p2.
 prevention by varnish on torpedo. Jan. 1947. p2.
 ratings for metals. H. D. Holler and R. A. Frye. Mar. 1945. p56-9.
- Corrosion (continued)**
 titanium treatment. Jan. 1944. p13.
 See also Cathodic protection; Electroplating; Finish.
- Coupler**. See Bus-differential protection.
- Crane**
 a-c, reactor control. W. R. Wickerb. and C. B. Rialer. May 1945. p77-81.
 drive for mobile. Jan. 1948. p18.
- Creep**, measurement. SR. Aug. 1942. p11 SR. Nov. 1942. p125.
- Cross-pointer instrument**. See Instrument.
- Crush grinding**. See Manufacturing methods.
- Cryogenics**, low-temperature research. S. Mar. 1948. p45; SR. Mar. 1950. p11
- Crystal accelerometer**. See Accelerometer.
- Crystal rectifier**. See Rectifier.
- Crystal, research**. SR. Mar. 1949. p58.
- Current-limiting fuse**. See Fuse.
- Current transformer**. See Transformer.
- Cutout**
 improved construction. July 1949. p11 series lamp. W.N. July 1949. p11.
 See also Fuse.
- Cyclotron**. See Particle accelerator.

D

- Damping**. See Dashpot.
- Dashpot**, ceramic. Mar. 1945. p46.
- DDT**. See Insect control.
- Deck-edge elevator**. See Elevator.
- De-ion principle**. See Circuit interrupter.
- Demand meter**. See Meter.
- Dielectric heating**. See Heating.
- Diesel**. See Power plant.
- Diesel-electric locomotive**. See Locomotive.
- Differential protection**. See Bus-differential protection.
- Diffraction camera**. See Camera.
- Diffusion pump**. See Pump.
- Direct-current commutation**. See Commutation.
- Disalloy**. See High-temperature alloy.
- Disconnecting switch**, load-break. W. May 1941. p31.
- Dishwasher**, automatic. May 1950. p154
- Distribution system**
 equipment economies. A. C. Montell. Sept. 1944. p147-52.
 mine power center, a-c. W.N. Nov. 1943. p192.
 mine safety circuit center. W.N. Jul. 1948. p122.
 networks for generating stations. J. Parsons. May 1947. p93-4.
 underground. July 1947. p102.
- secondary network**
 developments. Jan. 1947. p28.
 general applications. J. S. Parsons. Mar. 1941. p24-7.
 industrial plants. J. S. Parsons. Nov. 1941. p85-8.
 limiters, use of. H. L. Rawlins and C. E. Warren. Feb. 1943. p18-23.
 Nash-Kelvinator Plant. C. E. Pflug. Nov. 1943. p111-4.
 protector. Jan. 1946. p21.
 protector, heavy-duty. Jan. 1949. p10.
 test kit. W.N. May 1942. p63.
 See also Book review; Capacitor; Fuse; Recloser; Substation; Transformer.
- Dredge**
 "Essays." May 1950. p144-5.
 sea-going. Sept. 1947. p155.
 See also Rotating regulator; Speed control

Drydock, Boating. Sept. 1947. p160.
Dryer, clothes, electric. Jan. 1945. Inside-back cover.
Dust collecting. See Air cleaner.
Dynamometer
engine. Jan. 1946. p27.
engine testing. R. H. Wright. May 1942. p39-42.
high-speed, development. Jan. 1945. p21.
Dynamotor, aircraft. Jan. 1944. p25; WN. Nov. 1950. p255.
Dynetric balancer. See Balancer.

E

Education. See Training.
Einstein relation. See Nuclear energy.
Electrical engineering
application history. A. C. Monteith. Jan. 1950. p2-5.
See also Electrical manufacturing; History.
Electrical iron (or Steel). See Magnetic material.
Electrical manufacturing
scope. Sept. 1950. Inside-front cover.
time required for product development. May 1950. Inside-front cover.
Electrical Transmission and Distribution Reference Book. See Book review.
Electric heating. See Heating.
Electric iron. See Iron, home appliance.
Electric power. See Power plant.
Electric shovel. See Shovel.
Electric stairway
aircraft carrier. WN. Nov. 1949. p178.
fire protection. WN. Mar. 1949. p47.
vertical transportation. R. W. Dodge. Mar. 1950. p98-104.
Electric torpedo. See Torpedo.
Electrification. See Thickness gauge.
Electron
characteristics, review. Nov. 1943. Inside-front cover.
emission. SR. Nov. 1943. p123.
See also Nuclear physics; Tube.
Electronic
industrial applications, grids. C. A. Scarlott. Nov. 1943. p106-10; Jan. 1947. p8.
mid-century review and forecast. W. C. Evans. Jan. 1950. p88-96.
reliability in electronics. D. D. Knowles. Nov. 1950. p242-4.
See also Balancer; Fish fence; Furnace; Generator; Heating; Instrument; Machine tool; Mass spectrograph; Mass spectrometer; Measurement; Meter; Oscillograph; Radar; Rectifier; Regulator; Speed control; Steel mill; Tube; Vacuum; Welding; X-ray.
Electronic telemeter. See Telemeter.
Electron microscope, dust analysis. SR. Nov. 1945. p192.
Electron tube. See Tube.
Electroplating
bright-plating. SR. May 1944. p75.
induction heating for reflowing tin. J. R. Erbe. Nov. 1942. p117-22.
periodic reverse current. G. W. Jernstedt. May 1947. p89-92; C. W. Jernstedt. May 1950. p139-43; Jan. 1948. p31.
Electropult. See Aircraft.
Electrostatic air cleaner. See Air cleaner.
Electrostatic generator. See Particle accelerator
Electrostatic process. See Iron; Lamp, fluorescent.

Elevator

aircraft carrier, deck-edge. Jan. 1946. p23.
control, developments. Jan. 1948. p7; Jan. 1949. p26.
multiple, automatic. Jan. 1949. p26.
review. Sept. 1949. Inside-front cover.
vertical transportation, developments. R. W. Dodge. Mar. 1950. p98-104.
See also Electric stairway.
Emission. See Tube.
Enamel. See Insulation, electrical.
Energy
definition. Nov. 1943. p117.
sources. C. C. Furnas. Feb. 1943. p2-7. Inside-front cover.
See also Nuclear energy.
Engine. See Jet engine.
Engine testing. See Dynamometer.
Everglades. See Agriculture, industrial.
Excitation. See Generator; Marine.

F

Fan
portable. WN. July 1948. p122.
steam-driven. Jan. 1945. p18.
vehicle. WN. Sept. 1948. p160.
See also Air conditioning; Ventilation.
Fault clearing, single pole. See Circuit breaker.
Fault detection, insulation, transformer. Jan. 1946. p26.
Film, ultra-thin. SR. May 1945. p83.
Filter. See Air cleaner.
Finish
corrosion, protection, sprayed metal. WN. Nov. 1944. p191.
distribution transformers. WN. Nov. 1950. p256.
sprayed metal. Jan. 1947. p3.
studies of surface polish. SR. Aug. 1943. p80.
Fischer-Tropsch. See Coal.
Fish fence, electronic. Sept. 1945. p147.
Fission. See Nuclear energy; Nuclear physics.
Flaw detection, supersonic. D. M. Kelman. July 1949. p115-8.
Flexitest. See Relay.
Floodlighting. See Lighting.
Florida. See Agriculture, industrial.
Flow gauge. SR. July 1944. p118.
Flow switch. WN. Nov. 1943. p136.
Fluorescent lamp. See Lamp.
Fluorescent lighting. See Lighting.
Fluorescent powder. See Lamp, fluorescent.
Fluorescent sun lamp. See Lamp.
Fluoroscope, image amplifier. SR. July 1948. p114; Jan. 1949. p30.
Flyash. See Air cleaner.
Foamed-resin insulation. See Insulation, thermal.
Force, definition. Nov. 1943. p117.
Forest. See Wood.
Fosterite. See Insulation, electrical; Plastic.
Fosterite asbestos. See Insulation, electrical.
Foundry, mechanized, development. Jan. 1949. p29.
Frequencies, characteristics, 60 cycles to ultra-high. J. E. Hill. Sept. 1946. p134-40.
Frequency meter. See Vibration measurement.
Fuel
high-octane fuel production. C. A. Scarlott. Nov. 1944. p162-8.
See also Coal; Nozzle.

Furnace

arc
circuit breaker. WN. Nov. 1947. p190.
control, regulators. H. G. Frostick. Nov. 1945. p188-91; Jan. 1946. p24.
review. Nov. 1945. Inside-front cover.
suppression of surges. W. R. Stewart. S. B. Griecom and J. E. Hobson. May 1941. p11-4.
transformer seal. Jan. 1949. p24.
radiant
control. SR. May 1945. p82.
furnace brazing, principles. A. K. Philippi. May 1945. p84-9.
Furnatron electronic control. WN. Sept. 1944. p158.
high-temperature. Jan. 1948. p30.
See also Brazing; Heating; Stoker.
Furnatron. See Furnace.
Fuse
boric acid. WN. Nov. 1941. p94.
boric acid for 69 kv. WN. May 1942. p62.
current-limiting. WN. May 1944. p96.
cutout. WN. May 1942. p63.
high-voltage. H. L. Rawlins and J. M. Wallace. Sept. 1944. p153-7; WN. Mar. 1944. p64.
surge-resisting. WN. Nov. 1947. p192.
Fuze, proximity. Jan. 1946. p23.

G

Gas analysis. See Mass spectrometer.
Gasket, nylon. Jan. 1947. p9.
Gasoline. See Fuel.
Gas synthesis. See Coal.
Gas turbine. See Turbine.
Gauge. See Flow gauge; Strain gauge; Thickness gauge.
Gear
cases, for marine. Jan. 1944. p4.
forming, high loading. Jan. 1947. p15.
grinding. T. J. Putz and H. W. Semar. July 1946. p117.
high load. Jan. 1949. p22.
marine. Jan. 1944. p3.
shaving. Jan. 1947. p18.
speed reducer. WN. Mar. 1949. p51.
Geared steam-turbine locomotive. See Locomotive.
Gearmotor. See Motor.
Geiger counter. See Radiation detector.
Generator
electric shovel. Jan. 1948. p14.
laminated frames. WN. May 1948. p94.
steel mill. Jan. 1948. p13.
aircraft
developments. Jan. 1946. p18; Jan. 1949. p22.
dynamotor. Jan. 1944. p25.
inductor. Jan. 1949. p22.
400-cycle. J. D. Miner. Sept. 1945. p148-53.
vibration resisting. WN. July 1949. p114.
a-c, high frequency
electronic. WN. Sept. 1944. p158; Sept. 1945. p141.
klystron. S. Krasik. Nov. 1946. p176-9.
magnetron. J. W. Colman. Nov. 1946. p172-5; Jan. 1946. p5.
microwave, resonator. F. W. Boggs. Mar. 1947. p57-60; SR. Mar. 1946. p47.
oscillator. WN. Sept. 1945. p141.
radar. Jan. 1946. p2, 4.
resonant-cavity generators, principles. J. E. Hill. Sept. 1946. p134-40.
a-c, power
Boston Edison. Sept. 1947. p155.

Generator (continued)

- a-c, power*
- central station. C. M. Laffoon. May 1947. p84-6.
- central station, developments. Jan. 1947. p26; Jan. 1948. p3; Jan. 1949. p3.
- Dow Chemical. Sept. 1947. p155.
- excitation, ignitron. C. M. Laffoon. May 1946. p85; R. F. Lawrence and C. R. Marcum. May 1946. p86-8; Jan. 1946. p17; Jan. 1947. p23.
- excitation, Rototrol. C. Lynn and C. E. Valentine. Mar. 1948. p34-6; Jan. 1948. p4.
- excitation systems. C. Lynn. July 1947. p115-20.
- Grand Coulee. Aug. 1941. p47.
- grounding. S. B. Griscom. Feb. 1943. p33-9; A. A. Johnson. May 1943. p66-8.
- hydrogen cooling. R. B. Roberts. Sept. 1947. p138-42; Sept. 1947. Inside-front cover.
- industrial. J. G. Partlow. Nov. 1947. p172-4.
- mid-century review and forecast. C. M. Laffoon. Jan. 1950. p20-30.
- motoring protection. L. L. Fountain. Nov. 1946. p190-1.
- ratings of two-pole generators. V. Laughner. Sept. 1946. p130-3.
- voltage regulation. C. E. Valentine. Nov. 1948. p167-72.
- waterwheel, Gibson test. H. I. Howell. May 1944. p85-8.
- See also Brush; Commutation; Corona; Insulation, electrical; Lightning-protection devices; Power plant.
- Germicidal lamp.** See Lamp.
- Gibson method.** See Waterwheel testing.
- Glass**
- ultraviolet lamp. Jan. 1947. p10.
- See also Insulation, thermal; Seal; Synchro-tie.
- Glass fiber, cable support. WN. Aug. 1943. p104.
- Glass seal. See Seal.
- Glue, plastic. SR. Sept. 1947. p150.
- Gluing. See Heating.
- Governor. See Turbine.
- Gradiometer. See Instrument.
- Graduate student. See Training.
- Grain-oriented steel. See Magnetic material.
- Grand Coulee.** See Circuit breaker; Generator; Motor.
- Grid.** See Tube.
- Grinding. See Manufacturing methods.
- Ground-fault neutralizer. See Transformer.
- Grounding. See Generator.
- Gyroscope**
- automatic pilot. WN. Mar. 1948. p63.
- passenger-car stabilizer. Jan. 1948. p25; SR. Nov. 1947. p186.
- principles and applications. K. A. Oplinger. May 1948. p75-9.
- tank-gun stabilizer testing. Jan. 1944. p14.
- See also Motor.

H

- Halide treatment.** See Brush.
- Heat.** See Hilsch tube.
- Heater, radiant**
- home. WN. Nov. 1945. p174.
- See also Furnace.
- Heating**
- induction and dielectric*
- applications. C. A. Scarlott. July 1944. p105-10; Jan. 1944. p28.

Heating (continued)

- induction and dielectric*
- brick making. Mar. 1945. p59.
- characteristics, 60 cycles to super frequencies. J. E. Hill. Sept. 1946. p134-40.
- development. Jan. 1945. p22; Jan. 1946. p5; Jan. 1948. p26; Jan. 1949. p15.
- equipment for. C. C. Levy and L. J. Lunas. Feb. 1942. p20-2.
- external surface hardening. W. E. Benninghoff and H. B. Osborn, Jr. Feb. 1942. p14-6.
- internal surface hardening. H. E. Somea. Feb. 1942. p17-9.
- principles and applications. F. T. Chesnut. Nov. 1941. p76-80; F. T. Chesnut. Feb. 1942. p11-3.
- "Q" meter. SR. May 1945. p83.
- tin flowing. J. R. Erbe. Nov. 1942. p117-22.
- TV-tube production. WN. Mar. 1950. p127.
- wood gluing. T. P. Kinn and R. E. Kirby. Sept. 1948. p138-43.
- work handling. WN. Nov. 1949. p178.
- infrared*
- armature drying. WN. May 1943. p70.
- ceramic curing. Mar. 1945. p59.
- lamp. S. G. Hibben. May 1941. p3; WN. May 1943. p70.
- textile plant. Feb. 1943. p26.
- See also Aircraft; Brazer; Brazing; Condenser bushing; Controlled-atmosphere generator; Furnace; Generator; Heater, radiant; Lamp.
- Heat pump, reversed-cycle air conditioning.** R. D. Heitchue. Aug. 1941. p39-42.
- High-altitude brush.** See Brush.
- High-frequency generator.** See Generator.
- High-frequency transformer.** See Transformer.
- High-octane fuel.** See Fuel.
- High-permeability iron.** See Magnetic material.
- High-power laboratory.** See Laboratory.
- High-temperature alloy**
- Discaloy. Jan. 1929. p30.
- K-42-B. Jan. 1946. p10; Jan. 1947. p13.
- Kovar, metal-to-glass seal. W. H. Brandt and E. S. Latimore. July 1945. p117-9; SR. Nov. 1943. p124; Jan. 1947. p5.
- Refractaloy. Jan. 1947. p13.
- High-temperature insulation.** See Insulation, thermal.
- High-temperature lubrication.** See Lubricant.
- High-temperature research.** See Camera.
- High-voltage generator.** See Particle accelerator.
- High-voltage laboratory.** See Laboratory.
- High-voltage transmission.** See Transmission line; Transmission system.
- Hilsch tube.** SR. July 1947. p108.
- Hiperco.** See Magnetic material.
- Hiperail.** See Magnetic material.
- History**
- famous men of electrical engineering. Sept. 1946. p146-7.
- mid-century review and forecast. Jan. 1950. p1-96.
- Westinghouse men of science and engineering. Jan. 1950. p48-9.
- Hoist**
- a-c, control. Jan. 1946. p24.
- a-c, reactor control. W. R. Wickerham and C. B. Rialer. May 1945. p77.
- hydraulic hoist for open-hearth furnace. WN. Nov. 1950. p255.

- Home appliance.** See Specific device.
- Hour meter.** See Meter.
- Hydraulic governor.** See Turbine.
- Hydro-bomb.** See Bomb.
- Hydroelectric power.** See Power plant.
- Hydrogenation.** See Coal.
- Hydrogen cooling.** See Generator.

I

- Ice breaker.** See Marine.
- Icing, aircraft window.** See Aircraft.
- Idlewild Airport.** See Lighting.
- Ignitron**
- ignitrons for. WN. May 1943. p70.
- See also Generator; Rectifier.
- Illumination.** See Lighting.
- Image amplifier.** See Fluoroscope.
- Impulse testing.** See Surge testing.
- Incandescent lamp.** See Lamp.
- Induction heating.** See Heating.
- Induction motor.** See Motor.
- Industrial hygiene, review.** July 1949.
- Inside-front cover.
- Infrared lamp.** See Lamp.
- Inhibitors.** See Transformer.
- Insect control**
- in factory. Jan. 1945. p20.
- insecticide, DDT. WN. Nov. 1945. p171.
- Inspection.** See Flow detection; X-ray; Thickness gauge.
- Instrument**
- aircraft, blind landing. C. A. Scarlott. May 1944. p89-90.
- aircraft, miniature. Jan. 1945. p25.
- altimeter. Jan. 1945. p12.
- covers. Jan. 1944. p23.
- glass jewels. SR. Feb. 1943. p16.
- long-scale. Jan. 1944. p5; Jan. 1947. p25.
- magnetic gradiometer. SR. Sept. 1916. p41.
- portable, military. Jan. 1945. p27.
- portable (P-12). WN. July 1950. p192.
- "Q" meter. SR. May 1945. p83.
- remagnetizer. Jan. 1945. p26.
- spectroscope for microwave. SR. Mar. 1947. p64.
- standard parts. Jan. 1946. p16.
- trypometer for aviators. WN. Nov. 1943. p135; SR. July 1945. p108.
- war uses. Nov. 1942. Inside-front cover.
- See also Flow gauge; Lighting; Meter; Oscillograph; Radiation detector; Thickness gauge; Torquemeter; Turbine; Vibration measurement; Viscosity meter; Welding.
- Instrument transformer.** See Transformer.
- Insulation, electrical**
- moisture research. SR. Sept. 1948. p151.
- molded, hot-formed. Jan. 1945. p32; WN. Mar. 1945. p55.
- rule for temperature vs. life. G. L. Moses. July 1945. p106-7.
- Thermalastic for high-voltage generators. G. L. Moses. July 1950. p163-5.
- ceramic*
- high-frequency. SR. Sept. 1945. p159.
- high-strength glaze. SR. Aug. 1941. p49.
- Prestite. WN. May 1941. p31; WN. May 1944. p95.
- review. May 1946. Inside-front cover.
- Zircon porcelain. R. Russell. May 1946. p90-3; Jan. 1945. p30; SR. Sept. 1945. p159.
- enamel*
- for high temperature. Jan. 1947. p12.
- scrape-test device. SR. Nov. 1942. p124.
- wire-enamel development. Jan. 1948. p25.

Insulation, electrical (continued)

impregnant

Fosterite. E. L. Schulman. Nov. 1945. p184-6; SR. Sept. 1945. p159; Jan. 1946. p11; Jan. 1947. p11.

Fosterite insulation for small transformers. R. Lee. Nov. 1950. p233-4.

mica and mica substitute

Asbestos-Fosterite, mica substitute. E. L. Schulman. Mar. 1947. p61-3; Jan. 1947. p9.

silicone

silicone principles, manufacture, characteristics, applications. C. A. Scarlott. Sept. 1945. p130-4; Jan. 1946. p10; Jan. 1947. p9.

silicones as coil insulation. G. L. Moses. Sept. 1946. p138-41.

tests on silicone-insulated machines. T. A. Kauppi, G. Grant, G. L. Moses, and R. F. Horrell. Sept. 1945. p135-40; C. L. Moses. Nov. 1949. p168-9; Jan. 1945. p32.

varnish

corrosion inhibiting. WN. Nov. 1949. p174.

corrosion protection. Jan. 1947. p2. Thermoset. G. F. Sutton and M. F. Hertel. July 1948. p124-8; WN. Nov. 1941. p94.

See also Capacitor; Condenser bushing; Corona; Photoelasticity; Plastic; Testing.

Insulation, therm-

glass fiber. Jan. 1947. p10.

high-temperature for panels. WN. Mar. 1945. p54.

Insulfoam, foamed resin. SR. July 1949. p123.
See also Condenser bushing; Corona; Plastic.

Insulfoam. See Insulation, thermal.

Investment casting. See Casting.

IR-drop compensation. See Speed control.

Iron

iron-ore supply. C. A. Scarlott. July 1945. p110-6.

iron-ore beneficiation. WN. Sept. 1949. p154.

iron-ore separation, electrostatic. SR. Nov. 1941. p75.

measurement and purity. SR. Aug. 1941. p48.

measurement of phosphorous. SR. Feb. 1942. p32.

pure. SR. May 1943. p51; SR. Nov. 1944. p177.

See also Magnetic material; Magnetism; Steel.

Iron, home appliance, wartime standards.

Jan. 1944. p19.

Iron ore. See Iron.

Isotope

metal research. SR. Sept. 1947. p150.

See also Nuclear physics.

J

Jet engine

development. Jan. 1945. p3; Jan. 1947. p22; Jan. 1948. p24; Jan. 1949. p5.

gas turbines in aviation. F. W. Godaey, Jr. and C. D. Flagle. July 1945. p121-7.

icing research. Jan. 1949. p32.

mid-century review and forecast. D. W. R. Morgan. Jan. 1950. p18-9.

summary of progress. R. P. Kroon. Sept. 1950. p194-200.

See also Nozzle.

Jet propulsion

future forms of jet-propulsion turbines. A. H. Redding. July 1947. p110-4.

principles and comparison of jet systems. C. A. Scarlott. Mar. 1945. p47-53.

Inside-front cover.
See also High-temperature alloy; Turbine.

Jewels. See Instrument.

K

K-42-B. See High-temperature alloy.

Klystron. See Generator.

Kovar. See High-temperature alloy.

Krypton lamp. See Lamp; Lighting, airport.

L

Laboratory

high-power, cold room. Nov. 1941. p96.

high-power, Navy. H. L. Flatt, J. D. Gard, and S. A. Haverstick. Nov. 1947. p175-8.

high-power, review. Nov. 1947. Inside-front cover.

high-power, short-circuit testing. R. C. Van Sickle. Aug. 1942. p66-70.

role of the engineering laboratories. C. A. Scarlott. May 1950. p130-7.

steam power plant, college. F. K. Fischer and W. R. Harris. Sept. 1946. p142-4.

See also Testing.

Lamp

krypton lamp for airport approach. G. A. Freeman. May 1948. p90-1; Jan. 1948. p26; WN. Nov. 1948. p175.

light sources, review. Mar. 1950. Inside-front cover.

mid-century review and forecast. S. G. Hibben. Jan. 1950. p80-7.

photoflash calculator. Sept. 1950. Inside-back cover.

progress with light sources. S. G. Hibben. May 1941. p3-7.

bactericidal (Sterilamp)

chickens. Jan. 1944. p25.

constant-intensity glass. Jan. 1947. p10.

cross-infection tests. SR. Nov. 1943. p125.

development. WN. May 1948. p95.

milk bottles. WN. Aug. 1942. p86; WN. Nov. 1942. p136.

principles and applications. C. A. Scarlott. Feb. 1942. p3-6.

refrigerator. WN. Nov. 1946. p188.

research. SR. Aug. 1943. p80.

fluorescent

circular. WN. Sept. 1945. p141.

circular for oscillograph. WN. Sept. 1950. p222.

deluxe colors. WN. Sept. 1950. p223.

developments. Jan. 1946. p28; Jan. 1948. p19; Jan. 1949. p14.

electrostatic coating. Jan. 1945. p10.

fatigue of phosphors. SR. Feb. 1943. p17.

gases. Sept. 1950. Inside-back cover.

miniature, glow-type. Jan. 1945. Inside-back cover; WN. Sept. 1948. p158.

quick-start. WN. Mar. 1947. p47.

slimline. Jan. 1945. Inside-back cover; WN. May 1945. p96; WN. Sept. 1950. p223.

striation. SR. Nov. 1949. p187.

warm white. WN. Mar. 1949. p50.

incandescent

automotive. WN. Sept. 1948. p158.

brightness control. WN. May 1942. p31.

Lamp (continued)

Christmas-tree. WN. July 1950. p192.

developments. Jan. 1948. p19.

indirect, 150-watt. WN. July 1950. p192.

infrared. WN. May 1945. p96.

life-saving. Aug. 1943. p96; Jan. 1944. p19.

miniature, reflector. Jan. 1945. p8.

miniature, shock-resisting. Jan. 1947. p5.

projection. WN. July 1947. p128.

reflector. WN. Sept. 1948. p158.

reflector photofood. WN. Nov. 1950. p252.

sealed-beam. WN. Nov. 1949. p178.

sealed-beam, airplane. WN. May 1943. p72.

sealed-beam, automobile. Jan. 1947. p23.

sealed-beam, bicycle. WN. Nov. 1950. p253.

series, cutout. WN. July 1949. p111.

sportsfield. WN. Nov. 1950. p253.

stoplight for buses. WN. May 1950. p156.

mercury

application. E. W. Beggs. Mar. 1948. p52-6.

cadmium. Jan. 1948. p19.

combination fluorescent-mercury. SR. July 1950. p175.

developments. E. W. Beggs. Nov. 1947. p179-83; Jan. 1947. p5; Jan. 1949. p12.

photochemical. SR. July 1950. p191.

short-arc mercury lamp. G. A. Freeman. Mar. 1950. p105-6.

sunlamp

description. WN. Nov. 1941. p95; Jan. 1945. p8; WN. July 1945. p128; Jan. 1946. p32.

fluorescent-type. R. S. Sheetz. Nov. 1949. p170-3; Jan. 1949. p12.

See also Cutout; Heating, infrared; Phosphor.

Laundromat. See Washer, clothes.

Laundry

clothes washing, rinsing. Jan. 1944. p18.

See also Dryer, clothes; Washer, clothes.

Leak detector. See Mass spectrometer.

Lighting

arc welding. SR. Mar. 1944. p58; Jan. 1945. p20; WN. Mar. 1948. p63.

blackout. May 1942. Inside-front cover.

developments. S. G. Hibben. May 1941. p3-7.

luminous instrument. WN. Feb. 1942. p27.

mobile military unit, development. Jan. 1945. p8.

phosphorescent. S. G. Hibben. May 1942. p35-7.

searchlights, military, development. Jan. 1945. p8, 10.

searchlights, mobile. WN. Nov. 1944. p190.

searchlights, saving in material. WN. Nov. 1942. p136.

signaling searchlight. Jan. 1944. p6.

television studio. H. M. Curin and R. L. Zahour. Nov. 1950. p245-9.

training course. WN. Mar. 1946. p63.

airport

approach-angle indicator. Jan. 1946. p28.

approach lighting, all-weather. W. A. Pennow. July 1947. p105-7; W. C. Norvell. Sept. 1949. p130-3; Jan. 1947. p24; Jan. 1948. p26.

approach lighting, all-weather, at Idlewild Airport. Jan. 1949. p13.

developments. Jan. 1946. p28-9; Jan. 1948. p20; WN. May 1948. p96; WN. Sept. 1948. p160.

Lighting (continued)

- airport**
 experience with All-Weather Approach System. WN. Mar. 1950. p124.
 marker. Jan. 1944. p10.
 runway contact. WN. Feb. 1943. p40; WN. Nov. 1943. p136; Jan. 1944. p9.
 runway, control. Nov. 1944. p192; WN. May 1945. p95.
 runway. WN. Nov. 1950. p254.
- buildings**
 fluorescent, fixtures. WN. May 1943. p72; WN. Nov. 1943. p135; WN. Mar. 1945. p55; WN. Mar. 1949. p50.
 lamp holder. WN. Mar. 1949. p51.
 Masonite fluorescent fixture. WN. Nov. 1943. p72.
 no-blink switch. Jan. 1944. p14; WN. Sept. 1944. p160.
- factory**
 fluorescent. W. H. Kahler. Aug. 1943. p97-101.
 heavy industries. WN. Sept. 1945. p142.
 industrial floodlights. WN. Mar. 1946. p63.
 local. WN. Nov. 1944. p191.
 mercury-vapor, review. Sept. 1944. Inside-front cover.
 mercury-vapor, 3-kw. W. H. Kahler. Sept. 1944. p144-6.
- railway-car**
 s-c lighting for subway cars. WN. Nov. 1950. p256.
- street**
 blackout. C. S. Woodside. May 1942. p37.
 developments. Jan. 1946. p29.
 globes. WN. July 1944. p128.
 mercury. WN. Nov. 1947. p191.
- Lighting**
 causes and protection from. Feb. 1943. p15.
 characteristics. E. W. Beck. July 1949. p124-8.
 general. Feb. 1942. Inside-front cover.
 records. SR. May 1949. p90.
 stroke counter. SR. May 1944. p75.
- Lightning-protection device**
 comparison of gaps, arresters, and tubes. E. W. Beck and G. D. McCann. Nov. 1942. p133-5.
 for distribution transformer. Jan. 1949. p10.
 for meters. A. M. Opsahl. May 1942. p38.
 for rotating machines. G. D. McCann, E. W. Beck, and L. A. Finzi. Mar. 1944. p60-2.
 lightning arrester, glow discharge. SR. May 1949. p90.
 lightning arrester, high-voltage, self-supporting. WN. Sept. 1946. p164.
 lightning arrester, ionized gap. WN. May 1942. p64.
 lightning-arrester principles. E. W. Beck. May 1950. p148-52.
 lightning arrester, railway signal circuits. E. W. Beck. Nov. 1943. p118-9.
 lightning arrester, rotating machines. E. W. Beck. May 1949. p72-3.
 voltage rating. R. D. Evans and E. W. Beck. Feb. 1942. p7-10.
 See also Transformer.
- Limiter.** See Distribution system.
- Linear Accelerator.** See Particle accelerator.
- Linestarter**
 Life-Linestarter. WN. May 1950. p156.
 switchgear. WN. Feb. 1943. p40.

Locomotive

- description of various types. C. A. Scarlott. May 1946. p78-83.
 types and comparison. H. E. Dralle. Nov. 1948. p186-90.
 types and historical background. July 1950. Inside-front cover.
- all-electric**
 history. Nov. 1948. Inside-front cover.
 ignitron. A. C. Monteith. July 1950. p187-8.
 New Haven. Nov. 1942. p122.
- diesel-electric**
 development. Sept. 1945. p143.
- gas-turbine-electric**
 description of experimental unit. T. J. Putz. Mar. 1948. p39-41.
 development. Jan. 1949. p4.
- mining**
 mine, midget. WN. Feb. 1942. p27.
 Morenci mine. Feb. 1942. p2.
- steam-turbine**
 Chesapeake & Ohio. C. Kerr. Sept. 1947. p130-2; T. J. Putz and C. E. Baston. Sept. 1947. p132-5.
 description. J. S. Newton and W. A. Brecht. Mar. 1945. p37.
 development. Jan. 1945. p7; Jan. 1946. p21; Jan. 1947. p21; Jan. 1949. p4.
 geared, reasons for. C. Kerr. Mar. 1945. p34.
 performance. T. J. Putz and F. L. Alben. May 1946. p89.
 performance characteristics. J. A. Newton. July 1948. p19-21.
 See also Gear; Turbine, gas.
- Log barker,** equipment for paper mills. R. R. Baker. Nov. 1947. p167-71.
- Log chipper.** See Motor.
- Loet wax.** See Casting.
- Low temperature.** See Cryogenics.
- Lubricant**
 bearing, air-lubricated. Jan. 1947. p23.
 high-temperature, boron nitride. G. L. Sumner. Nov. 1947. p188-9; Jan. 1949. p10.
 stability. SR. Sept. 1946. p141.

M**Machine tool**

- control, profile milling for propellers. H. E. Morton and G. A. Caldwell. May 1945. p72; Jan. 1946. p30.
 electronic load control. G. A. Caldwell. July 1945. p104.
 See also Motor.
- Magnesium**
 characteristics and uses. C. A. Scarlott. Mar. 1944. p43-5.
 sources and manufacture. C. A. Scarlott. Mar. 1944. p46-50.
- Magnetic amplifier**
 characteristics and applications. F. N. McClure. Sept. 1950. p205.
 current transducer. WN. Mar. 1950. p125.
 development. Jan. 1949. p10.
 principles. F. N. McClure. May 1949. p92-6.
 See also Battery charger.
- Magnetic bearing tester.** See Bearing tester.
- Magnetic gradiometer.** See Instrument.
- Magnetic material**
 extent of grain orientation in Hipersil. SR. Nov. 1941. p74.
 grain measurement. SR. Mar. 1947. p64.

Magnetic material (continued)

- high-permeability, Hipenco. Jan. 1947. p12; SR. May 1947. p95.
 Hipersil, grain-oriented steel, characteristics and uses in transformers. J. K. Hodnette and C. C. Horstman. Aug. 1941. p52-6.
 Hipersil, grain-oriented steel, development. WN. May 1941. p30.
 Hipersil, grain-oriented steel for radio transformer cores. C. C. Horstman. May 1943. p65.
 permanent. SR. Nov. 1945. p192.
 testing electrical iron. SR. Sept. 1945. p159.
 thin-gauge Hipersil grain-oriented steel. C. C. Horstman. July 1944. p120-3; Jan. 1944. p32; Jan. 1945. p31; Jan. 1947. p12.
- Magnetic strain gauge.** See Strain gauge.
- Magnetism,** mechanism of. Sidney Siegel. Aug. 1942. p71-4.
- Magnetron.** See Generator.
- Manufacturing methods**
 copper forming. Jan. 1947. p15.
 crush grinding. Jan. 1947. p18.
 plastic mold manufacture development. Jan. 1949. p29.
 preformed wiring. Jan. 1947. p18.
 stamped circuit television tuner. Jan. 1949. p29.
 vaporized metal for capacitor case. WN. Nov. 1944. p191; Jan. 1947. p3.
 wartime. Jan. 1947. p14.
 See also Casting; Gear; Metallurgy.
- Marine**
 Coast Guard. C. A. Scarlott. Sept. 1950. p206-11.
 excitation control. S. L. Lindbeck. May 1947. p87-8.
 geared-turbine drive for tankers. WN. Mar. 1950. p127.
 ice breakers, development. Jan. 1945. p16; May 1945. p71.
 lighthouse, radio-controlled. Sept. 1950. p211.
 Merchant Marine. C. A. Scarlott. Sept. 1944. p131-7.
 See also Bearing; Gear; Power plant; Radar; Rotating regulator.
- Marine navigation.** See Radar.
- Masonite.** See Lighting.
- Maas.** See Nuclear energy.
- Mass spectrograph.** WN. May 1941. p29.
- Mass spectrometer**
 gas analysis. J. A. Hipple and H. E. Dralle. Nov. 1943. p127-30; Jan. 1944. p27.
 leak detection. Jan. 1947. p20.
 leak detector. H. A. Thomas, T. W. Williams, and J. A. Hipple. July 1946. p108-10; SR. May 1946. p77.
- Mast.** See Testing, ship mast.
- Material**
 substitution, wartime. W. M. Layton. Nov. 1941. p91; Jan. 1947. p7, 9.
 See also Insulation, electrical; Insulation, thermal; Magnetic material; Plastic.
- Material handling.** See Mine; Shovel.
- Mathematic.** See Calculator; Statistical analysis.
- Matter.** See Nuclear energy.
- Measurement**
 high-temperature. SR. Mar. 1944. p58.
 insulation, high-frequency. SR. Nov. 1944. p174.
 microwaves. SR. Mar. 1947. p64.
 powder-metal mixtures. SR. Aug. 1942. p100.

Measurement (continued)

x-ray, photomultiplier. SR. July, 1946. p128.

See also Accelerometer; Creep; Film; Instrument; Isotope; Nuclear physics; Torquemeter; Vibration measurement; Welding; X-ray.

Meat industry. C. A. Scarlott. May 1949. p66-71.

Mechanical transient analyzer. See Calculator.

Men. See Training; History.

Merchant Marine. See Marine.

Mercury-arc rectifier. See Rectifier.

Mercurystat. See Regulator.

Mercury vapor. See Lamp; Lighting.

Meson. See Particle accelerator.

Metal

metal-to-glass seal, Kovar. W. H. Brandt and E. S. Latimore. July 1945. p117; SR. Nov. 1943. p124; Jan. 1947. p5. purity, research. SR. July 1948. p115. See also Copper; Corrosion; Creep; High-temperature alloy; Iron; Isotope; Magnesium; Magnetic material; Manufacturing methods; Molybdenum; Seal; Steel; Stress; Tin; Zirconium.

Metal-clad switchgear. See Switchgear.

Metallurgy, powder, research. SR. May 1943. p51.

Meteorology. See Radar.

Meter

demand. WN. Aug. 1941. p62. development of watt-hour meters. T. D. Barnes. Nov. 1950. p226-32. dew-point. Jan. 1944. p27. Electrigage. Jan. 1944. p15. megawatt. WN. May 1943. p71. total hour. WN. Nov. 1941. p96. watt-hour-meter assembly. WN. July 1950. p191.

See also Instrument; Lightning-protection devices; Telemeter; Torquemeter.

Metering. See Telemeter; Transformer.

Mica. See Insulation, electrical.

Micarta. See Plastic.

Microbalancer. See Balancer.

Micronex. See X-ray.

Microphotograph, definition. Nov. 1943. p117.

Microwave

communication, development. Jan. 1949. p7.

communication, principles. F. S. Mabry. May 1949. p74-7.

See also Instrument; Measurement; Power-line carrier; Radar; Switch.

Microwave generator. See Generator.

Mine

Castle Dome, copper mine. Mar. 1947. p48-9.

Morenci, copper mine. Feb. 1942. p2.

See also Distribution system; Iron; Locomotive; Phosphate; Transformer.

Mine locomotive. See Locomotive.

Molybdenum

characteristics and applications. J. Celot. Sept. 1947. p156-9.

production. Jan. 1946. p12.

Molybdenum sulphide. See Lubricant, high temperature.

Monochromator, testing, infrared. SR. May 1946. p76.

Monna. See Radar.

Morenci. See Mine.

Mosquito. See Insect control.

Motor

brake. Jan. 1949. p21. developments. Jan. 1949. p19, 20. explosion-resisting. Jan. 1949. p22.

Motor (continued)

fractional horsepower, types and applications. T. E. M. Carville. Mar. 1949. p52-7.

Grand Coulee pump motors. Jan. 1948. p12.

gyroscope, development. Jan. 1945. p12. gyroscope, torpedo control. Jan. 1947. p2.

mid-century review and forecast. L. R. Ludwig. Jan. 1950. p70-9.

starting with capacitors. M. A. Hyde and R. E. Marbury. May 1944. p70.

aircraft

brake. Jan. 1945. p15.

d-c, developments. Jan. 1944. p7, 9; Jan. 1948. p18.

high-frequency. J. D. Miner. Sept. 1945. p148-53.

Hiperco steel. Jan. 1947. p12.

a-c

gear. WN. Mar. 1944. p63. high-capacity pumping. Jan. 1948. p12.

high-speed, machine tool. SR. Aug. 1943. p81; Jan. 1944. p15; Jan. 1945. p19.

induction, review. Mar. 1947. Inside-front cover.

induction, unbalanced voltage. R. F. Woll. May 1944. p91-4.

induction, wide-speed range. C. W. Drake. May 1941. p23.

large multiphase. H. E. Keneipp. Aug. 1943. p82-4.

Lifeline squirrel-cage type. W. H. Formhals and T. C. Fockler. Mar. 1947. p50-3; Jan. 1947. p22.

log chipper. Jan. 1948. p13.

single-phase, characteristics. J. M. Stein and L. J. Murphy. Sept. 1949. p147-9.

single-phase, induction, development. Jan. 1948. p11.

splashproof Lifeline motor. WN. Nov. 1950. p252.

starting power factor and voltage. F. J. Johns. Aug. 1943. p95-6.

synchronous-motor starting. W. R. Wick-erham. May 1943. p46-9.

synchronous-motor starting (ASR). Jan. 1949. p21; WN. May 1950. p154.

totally enclosed. Jan. 1948. p14.

watertight, for marine use. Jan. 1944. p6.

wound rotor. WN. Sept. 1948. p160.

wound rotor, Electropult for airplane launching. Sept. 1946. p160-1.

cooling

copper-fin. Jan. 1946. p27; Jan. 1948. p11.

marine fan-cooled. WN. Nov. 1941. p95.

nitrogen-cooled. July 1947. p102; Jan. 1948. p13.

d-c

mill. WN. July 1947. p128; Jan. 1948. p12.

selenium rectifier, power supply. E. C. Watson and F. L. Reed. July 1947. p103-4.

steel mill, twin. Jan. 1946. p24.

torpedo. Jan. 1946. p23.

insulation

progress report on silicone-insulated motor tests. T. A. Kauppi, G. Grant, G. L. Moses, and R. F. Horrell. Sept. 1945. p135-40.

silicone insulation. WN. Mar. 1949. p51.

summation of silicone-insulated motor tests. G. L. Moses. Nov. 1949. p168-9.

See also Brush; Generator; Lightning-protection devices; Speed control; Wind-tunnel drive.

Motor generator

miniature. Jan. 1944. p25.

See also Particle accelerator, power.

Mototrol. See Speed control.

Mt. Palomar. See Telescope.

Movies. See Appliance; Commutation.

N

Natural gas, pipeline pumping. T. J. Putz. Nov. 1949. p191-2.

Naval research. L. B. Loeb. Sept. 1945. p154-6.

Navigation. See Radar.

Navy. See Naval research; Torpedo.

Network. See Distribution system.

Network calculator. See Calculator.

Network protector. See Distribution system.

Neutron detector. See Radiation detector.

Newton, third law of motion. Mar. 1945. Inside-front cover.

Nitrogen-cooled motors. See Motor.

No-blink switch. See Lighting.

Noise

fundamental principles. S. Bennon. Mar. 1949. p60-4.

measuring transformer noise. H. Fahnoe. May 1942. p55-7.

sound intensity and measurement. May 1942. p58.

Nozzle, atomizer, jet-engine fuel. SR. July 1947. p109.

Nuclear energy

conservation of energy, Einstein relation. F. Seitz. Mar. 1946. p35-8.

conservation of energy, review. Mar. 1946. Inside-front cover.

potentialities. C. F. Wagner and J. A. Hutcheson. July, 1946. p125-7.

power-plant problems. J. A. Hutcheson. Mar. 1948. p37-8.

review. Jan. 1946. p14; Jan. 1947. p32. See also Isotope; Radiation detector; Radiation, protection.

Nuclear physics

atom counter. WN. May 1941. p32.

atom smasher, measurement. Jan. 1949. p30.

nuclear reactions of heavy elements. W. E. Shoupp and H. Odishaw. Nov. 1946. p166-71.

nuclear reactions of light elements. R. W. Dodge. May 1950. p138.

nucleus structure. W. E. Shoupp. July 1946. p118-24.

principles. E. U. Condon. Nov. 1945. p167-73.

See also Isotope; Radiation detector; Radiation, protection.

Nylon. See Plastic.

O

Observatory. See Telescope.

Octane rating. See Fuel.

Oil. See Fuel; Synthetic fuel; Transformer.

Oil circuit breaker. See Circuit breaker.

Oil conditioner. See Transformer.

Oil, insulating, corrosion inhibitor. Jan. 1947. p2.

Oil mist. See Air cleaner.

Oil well. See Petroleum.

Ore. See Iron.

Ore separator. See Iron.

Oscillator. See Generator.

Oscillograph

amplifier, for magnetic oscillograph. C. J. Tirk. May 1950. p146-7.

cathode-ray, description. O. Ackerman and E. W. Beck. Nov. 1944. p169-73; WN. July 1944. p128.

Ocillograph (continued)
cathode-ray, review. Nov. 1944. Inside-front cover.
Ozone generator, for water purification. W.N. July 1950. p190.

P

Packaged power plant. See Power plant.
Packaging, for safe shipping. C. A. Scarlott. July 1950. p176-7.
Paint. See Color.
Panelboard. See Switchgear.
Paper
industry. C. A. Scarlott. Nov. 1947. p162-6.
manufacturing developments. Jan. 1949. p17.
manufacturing equipment. R. R. Baker. Nov. 1947. p167-71.
Particle accelerator
power for atom smashers. L. A. Kilgore, J. L. Boyer, C. S. Hague. Mar. 1950. p115-8; Jan. 1949. p23.
progress in atom smashing. R. E. Williams. May 1941. p15-8.
types and principles. W. E. Shoupp and J. W. Coltman. May 1947. p70-5.
See also Nuclear physics.
Pennsylvania turnpike. See Ventilation.
Periodic reverse-current plating. See Electroplating.
Personality Profile. See p19.
Petroleum
drilling. L. H. Berkley. July 1949. p104-5.
Plantation Pipe Line. M. A. Hyde. Aug. 1942. p81-5.
transportation. C. A. Scarlott. May 1943. p55-60.
See also Fuel; Synthetic fuel.
Phos-Copper. See Brazing.
Phosphate, mining and processing. H. Odishaw. July 1946. p111-6.
Phosphor. SR. Mar. 1950. p119.
Photoelasticity, determines insulator stresses. SR. Nov. 1941. p74.
Photoelastic resin. SR. Nov. 1947. p187.
Photomicrograph, definition. Nov. 1943. p117.
Photomultiplier. See Tube.
Phototube. See Tube; X-ray.
Pile. See Nuclear energy.
Pipe Line. See Petroleum; Turbine.
Pipe stress, determined with models. J. D. Conrad. May 1941. p22.
Plantation Pipe Line. See Petroleum.
Plastic
developments. SR. May 1948. p82.
Fosterite for electronic transformer protection. Nov. 1945. p184-6; Jan. 1947. p11.
glue. SR. Sept. 1947. p150.
laminated, development. Jan. 1949. p29.
Micarta ball-bearing retainer rings. W.N. May 1944. p95.
molded bearings. SR. Mar. 1945. p64.
nylon gaskets. Jan. 1947. p9.
See also Insulation, electrical; Photoelastic resin.
Plastic mold. See Manufacturing methods.
Plating. See Electroplating.
Polarograph, measures minute substances in solution. SR. Aug. 1941. p48.
Porcelain. See Dashpot; Insulation, electrical.
Potential transformer. See Transformer.
Powdered metal. See Metallurgy.

Power

characteristics at different frequencies, 60 cycles to ultra-high. J. E. Hill. Sept. 1946. p134-40.
definition. Nov. 1943. p117.
distribution, demonstration truck. W.N. Sept. 1946. p162.
load, growth. July 1948. Inside-front cover.
postwar applications. Mar. 1944. Inside-front cover.
system, equipment economies. A. C. Monteith. Sept. 1944. p147-52.
See also Energy; Generators; Nuclear energy.
Power center. See Distribution system.
Power-factor correction. See Capacitor.
Power-line carrier
developments. Jan. 1944. p29.
microwave. Jan. 1949. p7.
microwave experiment. F. S. Mabry. May 1949. p74-7.
modulation systems. R. C. Cheek. Mar. 1945. p41-5.
single-sideband. R. C. Cheek. Nov. 1945. p179-83; Jan. 1946. p18.
single-sideband, development. Jan. 1948. p9.
systems. R. C. Cheek. Sept. 1947. p151-5.
transmission line, principles. E. L. Harder. July 1944. p98-104.
Power plant
central-station development. Jan. 1947. p26.
electric power growth. July 1948. Inside-front cover.
Grand Coulee. Aug. 1941. p47.
mobile sled. Nov. 1945. p187.
mobile train. J. R. Bejarano. Nov. 1944. p176-7; Jan. 1944. p22; Jan. 1945. p4.
mobile train, condenser. R. A. Bowman. May 1945. p90.
packaged, for marine. Jan. 1945. p18.
packaged, steam. J. C. Spahr, M. A. Nelson and J. G. Partlow. July 1948. p116-8.
packaged, steam, 5000-kw development. Jan. 1946. p14.
passenger cars. H. H. Hanft and H. W. Graybrook. May 1946. p73-5.
powerhouse, auxiliary drives, trends. J. C. Cunningham. Nov. 1941. p81-4.
sealing. C. L. Moses. May 1945. p92.
Sewaren Station, Public Service Electric and Gas Company (of New Jersey). L. H. Berkley. Sept. 1949. p142-6.
steam, college laboratory. F. K. Fischer and W. R. Harris. Sept. 1946. p142-4.
turbine generator, Connecticut Light and Power. May 1943. p54.
turbine generator, Los Angeles Bureau of Power & Light. Aug. 1943. p94.
See also Aircraft; Distribution system; Generator; Stoker; Turbine.
Power plant, packaged. See Power plant.
Power sled. See Power plant.
Power supply. See Power plant.
Power transformer. See Transformer.
Precipitron. See Air cleaner.
Precision casting. See Casting.
Pressure, gas, review. July 1946. Inside-front cover.
Prestitute. See Insulation, electrical.
Probability, theory of. See Statistical analysis.
Profile tracer. See Machine tool.
Propeller manufacture. See Machine tool.

Protection. See Bus-differential protection
Cathodic protection; Circuit breaker
Furnace, arc; Lightning-protection devices; Transformer; Transmission line
Proximity fuse. See Fuse.
Pump, diffusion. A. P. Coliaco and D. L. Hopper. July 1946. p103-7; Jan. 1946 p25; Jan. 1947. p20.
Pushbutton, oil-tight. W.N. Mar. 1949. p51

Q

Quartz filaments. SR. May 1944. p74.

R

Radar
application to marine navigation. H. Odishaw. July 1946. p98-102.
harbor. Mar. 1950. p128; W.N. Nov. 1950. p255.
marine developments. Jan. 1947. p20; W.N. July 1949. p112.
marine navigation, development. R. H. Foy and L. J. Ulman. Nov. 1949. p188-90.
meteorology. SR. Mar. 1948. p44; SR. Nov. 1949. p186.
principles. Jan. 1946. p2.
to moon. May 1946. p96.
See also Generator; Microwave; Switch; Transformer, high-frequency.
Radiac. See Radiation detector.
Radiant heat. See Heater, radiant; Heating.
Radiation detector
description of types and principles. P. A. Duffy. Sept. 1949. p150-3.
developments. W.N. May 1941. p28; SR. Nov. 1948. p185; Jan. 1949. p14.
personnel protection from radiation. H. W. Speicher. July 1949. p119-21.
Radiation gas discharge. SR. Sept. 1949. p141.
Radiation, protection, nuclear physics. H. W. Speicher. July 1949. p119-21.
Radio
industrial, development. Jan. 1946. p7; Jan. 1949. p15.
industry, FM. W.N. Mar. 1949. p47.
mid-century review and forecast. W. C. Evans. Jan. 1950. p88-96.
military. Jan. 1944. p31.
Navy transmitter. Jan. 1946. p6.
point-to-point communication. J. R. Heck. Mar. 1950. p107-11.
railroad. Jan. 1947. p25; Jan. 1949. p15.
transmitter, development. Jan. 1949. p12.
See also Amplifier; Radar.
Radioactivity. See Nuclear physics; Radiation, protection.
Radium. See Nuclear physics.
Railroad
crane, drive. Jan. 1948. p18.
See also Air cleaner; Lightning-protection devices; Locomotive; Radio.
Railroad car
a-c power. Jan. 1949. p25.
rectifier. R. W. Dodge. Nov. 1949. p179-80.
See also Gyroscope; Power plant.
Range, kitchen, Rancho type. W.N. May 1950. p154.
Reactor
impedance-matching reactors. W.N. Sept. 1950. p223.
saturable core. E. C. Wentz. Nov. 1943. p115-7.
saturable core, gradiometer. SR. Sept. 1946. p141.

- Reactor (continued)**
 See also Bus-differential protection; Battery charger; Hoist.
- Recloser, distribution, rural circuit.** W.N. July 1947. p128; Sept. 1949. p158.
- Reclosing.** See Circuit breaker.
- Rectifier**
dry-type.
 crystal. S. J. Angello. Mar. 1947. p54-6.
 disk, copper-oxide, characteristics. I. R. Smith. Aug. 1943. p85-90.
 disk, copper-oxide circuits. I. R. Smith. May 1944. p76-7.
 disk, copper-oxide, for airplane starting. W.N. May 1942. p64.
 disk, copper-oxide, Navy. Jan. 1944. p24.
 disk, selenium, characteristics. I. R. Smith. Nov. 1946. p192-6.
 disk, selenium, developments. W.N. Mar. 1946. p62; W.N. Nov. 1948. p174.
 disk, selenium, selection. I. R. Smith. Sept. 1949. p136-9.
 disk, selenium, welding. W.N. Nov. 1949. p175.
- mercury-arc*
 ignitron developments. Jan. 1948. p11.
 ignitron for steel mill, France. Sept. 1947. p155.
 ignitron for sugar mill. W.N. July 1949. p114.
 ignitron, principle. Nov. 1946. Inside-front cover.
 ignitron, pumped, principles and applications. J. H. Cox. Mar. 1944. p51-5.
 ignitron, sealed, principles. J. H. Cox and D. E. Marshall. Nov. 1946. p183-7.
 power for atom smashers. L. A. Kilgore, J. L. Boyer, and C. S. Hague. Mar. 1950. p115-8.
 See also Generator, a-c, high frequency; Semi-conductors; Speed control.
- Rectox.** See Rectifier.
- Refractaloy.** See High-temperature alloy.
- Refrigeration**
 beverage refrigeration. Jan. 1946. p32.
 water coolers. Jan. 1944. p4; W.N. Sept. 1948. p160.
 See also Air conditioning.
- Refrigerator, domestic, automatic defrosting.** W.N. May 1950. p154.
- Relay**
 types and applications. C. E. Valentine. Nov. 1948. p167-72.
- electronic*
 paper machine. R. R. Baker. Nov. 1947. p167-71.
 paper mill. C. A. Scarlott. Nov. 1947. p162-6.
 photoelectric for steel mill strip. July 1945. p105.
- magnetic*
 air cooled for feeder voltage. W.N. Feb. 1942. p26.
 aircraft. Jan. 1945. p15; Jan. 1949. p22.
- mercury*
 Mercurystat. W.N. May 1941. p28.
 See also Furnace; Heating; Rotating regulator; Servomechanism.
- Relay (continued)**
 transformer overload (type TRC). F. L. Snyder. Aug. 1942. p93-6.
 transmission line, distance. J. L. Blackburn. May 1943. p61-4.
 transmission line, new types. Jan. 1944. p21; Jan. 1945. p5.
 transmission line, reclosing. H. N. Muller and W. W. Parker. Mar. 1945. p60-3.
 voltage regulation with line-drop compensation (type CJ). W.N. Aug. 1942. p87.
 See also Book review; Contact
- Research, electrical**
 mid-century review and forecast. J. A. Hutcheson. Jan. 1950. p34-7.
 phosphors. SR. Mar. 1950. p119.
- Research, naval.** L. B. Loeb. Sept. 1945. p154-6.
- Resin.** See Insulation, electrical; Insulation, thermal; Photoelastic resin.
- Resistance welding.** See Welding.
- Resonatron.** See Generator.
- Resonant cavity.** See Generator.
- Reverse-cycle air conditioning.** See Heat pump.
- Rheostat, liquid, powerhouse, auxiliary drives.** J. C. Cunningham. Nov. 1941. p83.
- Rocket.** See Jet propulsion.
- Rotating regulator**
 applications of Rototrol. E. Frieh. July 1947. p121-7.
 electric shovel. W.N. May 1949. p78.
 excitation supply. C. Lynn and C. E. Valentine. Mar. 1948. p34-6; Jan. 1948. p4.
 new applications. Jan. 1948. p9.
 papermaking apparatus. R. R. Baker. Nov. 1947. p167-71.
 Rototrol for dredge. W.N. May 1950. p153.
 Rototrol for mine hoist. J. G. Ivy. July 1944. p124-7.
 Rototrol for ship drive. S. L. Lindbeck. May 1947. p87-8.
 Rototrol, principles and applications. W. H. Formhals. May 1942. p51-4.
 steel mills. L. H. Berkley. May 1948. p73-4.
 See also Regulator; Speed control.
- Rototrol.** See Rotating regulator.
- Rubber, synthetic manufacture and characteristics.** C. A. Scarlott. Aug. 1912. p88-92.

S

- Saturable reactor.** See Battery charger; Hoist; Reactor.
- Scrap collection, review, wartime.** Aug. 1942. Inside-front cover.
- Scrape test.** See Testing.
- Seal**
 glass-metal. SR. Nov. 1949. p187.
 sealing large containers, power train. G. L. Moses. May 1945. p92.
 See also Metal.
- Searchlight.** See Lighting.
- Secondary banking.** See Transformer, distribution.
- Secondary network.** See Distribution system.
- Sectional drive.** See Paper.
- Selective Collective Automatic.** See Elevator.
- Selectomatic.** See Elevator.
- Selenium rectifier.** See Rectifier.
- Semi-conductors**
 review and principles. S. J. Angello. July 1950. p183-6.
 See also Rectifier.
- Senzimir-type rolling mill, tool of research.** SR. May 1947. p95.
- Series capacitor.** See Capacitor.
- Servomechanism**
 speed control. G. A. Caldwell. Sept. 1945. p157.
 types and principles. S. W. Herwald. Sept. 1946. p149-54.
- Sewaren Station.** See Power plant.
- Shipment.** See Packaging.
- Shock, protection from.** Jan. 1947. p4.
- Short-circuit.** See Laboratory.
- Shovel**
 for coal stripping. Aug. 1941. p61.
 generator. Jan. 1948. p14.
- Shunt capacitor.** See Capacitor.
- Signal-circuit protection.** See Lightning-protection devices.
- Silentvane.** See Air handling.
- Silicone.** See Insulation, electrical; Motor.
- Single-pole reclosing.** See Circuit breaker.
- Single sideband.** See Power-line carrier.
- Sound.** See Noise.
- Spectrometer.** See Mass spectrometer.
- Spectroscope.** See Instrument.
- Spectroscopy, tungsten.** SR. May 1943. p50.
- Speed control**
 accurate control of variable speed. W.N. Sept. 1949. p154.
 compensated variable-voltage system. R. H. Wright. Aug. 1941. p50-1.
 d-c motor, 8-to-1 range. R. W. Moore. Nov. 1947. p184-5.
 d-c with selenium rectifier. July 1947. p103-4; Jan. 1948. p14.
 motor-generator. W.N. May 1941. p32.
 Mototrol. W.N. Aug. 1943. p102; W.N. Nov. 1948. p173.
 Mototrol, description. T. R. Lawson. Mar. 1944. p39-42.
 multispeed large a-c motors. H. E. Keenipp. Aug. 1943. p82-4.
 variable-voltage, type AV. W.N. May 1949. p79.
 various systems, including Rototrol. G. A. Caldwell. Aug. 1942. p75-80.
 wide-speed range d-c motor. Jan. 1946. p25; W.N. Mar. 1950. p126.
 wide-speed range induction motor. C. W. Drake. May 1941. p23.
 wide-speed range with servomechanisms. G. A. Caldwell. Sept. 1945. p157.
 See also Furnace; Regulator; Rotating regulator.
- Speed regulator.** See Regulator.
- Spot welding.** See Welding, resistance.
- Spray analysis, photography, of water mist.** SR. May 1943. p50.
- Sprayed metal.** See Finish.
- Stability.** See Transmission system.
- Stabilizer.** See Gyroscope.
- Stamped circuit.** See Manufacturing methods.
- Standards, AIEE**
 colors, greys. W.N. Nov. 1946. p188.
 electrical terms. W.N. Aug. 1912. p87.
- Starch processing.** See Agriculture, industrial.
- Statistical analysis**
 graphical statistics. I. R. Hill and P. L. Schmidt. Part I, Mar. 1950. p120-3; Part II, May 1950. p157-60.
 statistical analysis. Wm. Schneider and G. L. Moses. Sept. 1948. p150-3.
- Steam**
 condenser, air-cooled, mobile train. R. A. Bowman. May 1945. p90.
 See also Power plant; Turbine.

Steel

industry. C. A. Scarlott. May 1948. p66-72.
measurement of temperature. SR. Feb. 1943. p16.
why it hardens. T. H. Gray. Feb. 1943. p29.

Steel mill

developments. Jan. 1949. p16.
individual generator drive. Jan. 1948. p13.
See also Motor; Rotating regulator; Sensitive-type rolling mill.

Sterilamp. See Lamp.

Stoker

historical development. R. S. Giles. July 1950. p166-71.
spreader type, description. D. J. Mooshart. July 1950. p171-4.
spreader type, development. Jan. 1948. p4.

Storage battery. See Battery charger.

Strain, definition. Nov. 1943. p117.

Strain gauge

magnetic. May 1947. Inside-front cover.
magnetic, principles and types. B. F. Langer. Nov. 1942. p129-32.
magnetic, torque. K. L. Wommack. May 1947. p76-8.

Stratovision. See Television.

Streetlighting. See Cutout; Lighting.

Stress

definition. Nov. 1943. p117.
distribution. SR. Nov. 1943. p122.
in metal measured with paint. SR. Aug. 1941. p49.
See also Pipe stress.

Student. See Training.

Substation

air-cooled. J. S. Parsons. Nov. 1941. p178-81.
distribution system. J. S. Parsons. May 1949. p82-7.
mobile. Jan. 1944. p23.
See also Distribution system; Switchgear.

Subway

cars for New York City. July 1947. p102.
cars, PCC type. WN. July 1949. p1

Sugar. See Agriculture, industrial.

Sun lamp. See Lamp.

Superconductivity. See Cryogenics.

Supersonic testing. See Flaw detection.

Supervisory control, Visicode principles and application. W. A. Derr. Nov. 1949. p162-7.

Supervisory instrument. See Turbine, steam.

Surface hardening. See Heating.

Surge. See Furnace; Fuse; Lightning.

Surge generator

Sunnyvale. WN. Sept. 1950. p224.
See also Surge testing.

Surge testing

high-voltage, impulse testing of transformer. P. L. Bellaschi. May 1945. p66-70.
power transformer. Jan. 1946. p15.

Switch

limit. Jan. 1948. p9.
radar, TR, description. S. Kranik. 1947. p136; Jan. 1946. p4.
See also Circuit breaker; Disconnecting switch; Flow switch.

Switchboard. See Switchgear.

Switchgear

control centers. WN. Nov. 1949. p174.
distribution, substation. B. K. Smith and P. R. Pierson. May 1949. p87-9.
indoor, high-voltage. Jan. 1946. p20.

Switchgear (continued)

industrial control. L. W. Dyer. Sept. 1949. p159-60.
metal-clad for central station. C. T. Abbott. May 1943. p52-4.
metal-enclosed. WN. Mar. 1944. p64.
mid-century review and forecast. J. R. MacNeill. Jan. 1950. p31-43.
power centers, air-cooled. Nov. 1944. p18.
shock, protection from. Jan. 1947. p4.
See also Circuit breaker; Fuse; Laboratory; Lightning-protection devices; Linestarter; Recloser; Substation; Switch.

Switching

cable. W. M. Leeds. Nov. 1949. p181-5.
See also Capacitor; Circuit breaker.
Symmetron. See Amplifier.

Synchro-cyclotron. See Particle accelerator.

Synchronous motor. See Motor.

Synchro-tie, for glass bottle making. July 1945. p105.

Synchrotron. See Particle accelerator.

Synthetic. See Glue; Insulation; Plastic.

Synthetic fuel, from coal and natural gas. C. A. Scarlott. Sept. 1947. p143-9.

Synthetic rubber. See Rubber.

T

Tank gun. See Gyroscope.

Telemeter

metering. Jan. 1946. p18.
metering, electronic transmitter. Carl Oman. May 1948. p92-3.

Telescope, astronomy, Mt. Palomar. C. A. Scarlott. July 1948. p98-102.

Television

apparatus for color transmitter. D. I. Balthis. Sept. 1946. p155-9; Jan. 1947. p21.
review. C. A. Scarlott. July 1949. p98-103.
Stratovision. C. E. Nobles. Nov. 1945. p162-6; C. A. Scarlott. Sept. 1948. p137; Jan. 1946. p9; Jan. 1947. p31; Sept. 1948. Inside-front cover.
tuner, stamped circuit. Jan. 1949. p29.

Temperature. See Hilsch tube; Measurement; Thermostat.

Terminal. See Condenser bushing.

Testing

bearings. SR. Mar. 1944. p57.
bomb fuzes. WN. Mar. 1944. p63.
compressor drive. Jan. 1949. p29.
creep-to-rupture. SR. July 1944. p118.
electrical iron. SR. Sept. 1945. p159.
fatigue, high temperatures. SR. Sept. 1944. p142.
fault transformer. WN. Mar. 1946. p63.
force measuring. SR. July 1945. p108.
heat shock. SR. Sept. 1944. p142.
high altitude. Jan. 1944. p9.
high-temperature alloys. May 1944. p84.
high-temperature metals. Jan. 1945. p27.
high-temperature metal, K-42-B. Jan. 1946. p10; Jan. 1947. p13.
infrared, monochromator. SR. May 1946. p76.
insulation. WN. Aug. 1943. p104.
low temperature. SR. May 1944. p74.
magnetic. SR. Nov. 1942. p125.
magnetic materials. SR. Mar. 1945. p64.
scrape test. SR. Nov. 1942. p124.
ship mast. Jan. 1944. p5.

Testing (continued)

waterwheel, turbine. H. I. Howell. May 1944. p85-8.

See also Dynamometer; Gyroscope; Insulation, electrical; Laboratory; Pipe stress; Surge testing.

Textile mill

developments. Jan. 1949. p18.
infrared heating. Feb. 1943. p26.

Thermalaatic. See Insulation, electrical.

Thermoet. See Insulation, electrical.

Thermostat

appliance. P. R. Lee. July 1949. p106-10.
temperature, review. May 1943. Inside-front cover.

Thickness gauge, x-ray. W. N. Lundahl. Mar. 1948. p42-3; Jan. 1948. p21; WN. Sept. 1949. p156.

Tidd line. See Transmission line.

Tin

conservation. C. A. Scarlott. Nov. 1942. p114-6.
See also Electroplating.

Titanium. See Corrosion.

Torpedo, electric. Nov. 1945. p176-8; Jan. 1947. p2.

Torque. See Torquemeter.

Torquemeter

instrument, aircraft, development. Jan. 1945. p14.
magnetic. K. L. Wommack. May 1947. p76-8.
measurement, torque. SR. July 1941. p119.
research. SR. Mar. 1949. p59.
strain-gauge principles, review. May 1947. Inside-front cover.

Training

education in industry. Nov. 1950. p240-1.
engineer, graduate. Mar. 1949. Inside-front cover.
for electrical industry. A. C. Monteith. Jan. 1950. p2-5.
Westinghouse Educational Center. Nov. 1950. Inside-front cover.

Transductor. See Magnetic amplifier.

Transformer

air-type for resistance furnace. Sept. 1950. Inside-back cover.
furnace-type seal. WN. Nov. 1948. p173; Jan. 1949. p24.
history. Mar. 1948. Inside-front cover.
mid-century review and forecast.
F. L. Snyder. Jan. 1950. p50-61.
oxygen inhibitors for oil. J. G. Ford and T. K. Sloat. Nov. 1950. p250-2.

distribution

air-cooled, developments. Jan. 1945. p7.
air-cooled, marine. Jan. 1946. p20.
air-cooled, mining. Jan. 1946. p31.
banking systems. J. S. Parsons. Mar. 1946. p39-42.
buried. July 1947. p102.
circuit breaker. Jan. 1948. p8.
coils computed graphically. W. I. Bendz. July 1944. p115-7.
De-ion arresters. WN. Sept. 1950. p222.
lightning arrester. Jan. 1949. p10.
mine power center. WN. Nov. 1947. p192.
rural service. Sept. 1950. Inside-back cover.
secondary banking. A. D. Forbes. Mar. 1946. p43-5.
secondary banking experience. C. T. Arnold. Mar. 1946. p45-7.
substation. E. A. Thompson. Sept. 1949. p134-5.
three-phase. WN. Aug. 1941. p62.

Transformer (continued)

- high-frequency**
cores for radio. C. C. Horstman. May 1943. p65.
developments. Jan. 1944. p32; Jan. 1946. p16; Jan. 1948. p7.
- instrument**
developments. Jan. 1944. p22; WN. Nov. 1948. p175.
Hipersil core. WN. May 1942. p64.
insulation for current transformer. Sept. 1950. Inside-back cover.
type UP. WN. Sept. 1950. p223.
- power**
air-cooled. Jan. 1944. p24.
air-cooled, description. H. V. Putman. May 1941. p19; J. K. Hodnette. Nov. 1944. p182-4.
CSP. WN. Aug. 1943. p104.
CSP power transformer, small size. WN. Sept. 1950. p224.
development. F. L. Snyder. Mar. 1948. p46-51; Jan. 1947. p26; Jan. 1948. p5; Jan. 1949. p7.
distribution substations. E. A. Thompson. Sept. 1949. p134-5.
dry-type, underground. W. W. Satterlee. Sept. 1948. p146-9.
fitted tank. C. A. Scarlott. Aug. 1943. p74-5.
forced cooling. Hipersil core. W. C. James. Aug. 1942. p97-9; WN. Aug. 1941. p62.
ground-fault neutralizer. WN. Sept. 1945. p142.
investment. F. L. Snyder. Sept. 1950. p217-221.
mobile. WN. Sept. 1949. p158.
oil conditioning. Jan. 1948. p9; WN. Sept. 1948. p157.
oil maintenance. J. R. McClain. Nov. 1941. p89-90.
overload determination. R. C. Cheek. Feb. 1943. p11-5.
protection. Jan. 1948. p6.
protection of air-cooled. E. W. Tipton. Nov. 1944. p187-9.
protection, relay. C. L. Denault. July 1948. p103-5.
radiators, separately banked. R. I. Brown. Feb. 1943. p27-9.
relief device. WN. May 1948. p95.
relief diaphragm. WN. July 1945. p128.
75 000-kva. Feb. 1943. p39.
tap changer, braking. Jan. 1946. p16.
temperature indication. WN. Sept. 1948. p157.
utilizing overload capacity. F. L. Snyder. Aug. 1942. p93.
See also Book review; Brazer; Condenser bushing; Finish; Lightning-protection devices; Magnetic material; Noise; Particle accelerator; Relay; Surge testing; Testing.
- Transient analyzer.** See Calculator.
- Transmission line**
capacitor. R. D. Evans and R. L. Witzke. Feb. 1943. p24-6.
high-voltage, Tidd line tests. Jan. 1947. p32; Jan. 1948. p31.
mid-century review and forecast. F. R. Benedict. Jan. 1950. p62-9.
motor-starting voltage problem. M. A. Hyde and R. E. Marbury. May 1944. p70-3.
protection of three-terminal lines. M. A. Bostwick and E. L. Harder. Aug. 1943. p76-9.
relaying, high-speed. W. A. Lewis. Part I, Aug. 1943. p91-4; Part II, Nov. 1943. p131-4.

Transmission line (continued)

- See also Book review; Capacitor; Circle diagram; Circuit breaker; Lightning-protection devices; Power-line carrier; Relay.
- Transmission system, line constants and circle diagrams.** C. F. Wagner and G. D. McCann. Aug. 1941. p57-60.
- Transportation**
city, rapid transit. WN. July 1948. p123.
See also Locomotive; Petroleum; Subway; Trolley coach.
- Trolley coach, developments.** G. M. Woods. May 1947. p66-9; Jan. 1945. p21.
- TR switch.** See Switch.
- Truck, distribution, demonstration.** WN. Sept. 1946. p162.
- Tube**
cathode platinum. SR. Sept. 1949. p140.
electron emission, cathode. SR. Nov. 1948. p184; Jan. 1947. p31.
electron emission, grids. Jan. 1947. p8.
electronic photomultiplier. SR. July 1946. p128.
See also Generator, a-c, high-frequency; Hilsch tube; X-ray.
- Tungsten.** See Spectroscopy.
- Turbine**
gas
combustion studies. SR. July 1947. p108; Jan. 1948. p29.
developments. Jan. 1946. Insert; Jan. 1947. p31.
industrial, 2000-hp. T. J. Putz. Mar. 1947. p35-9; T. J. Putz. Mar. 1948. p39-41; T. J. Putz. Nov. 1949. p191-2.
principles. F. K. Fischer and C. A. Meyer. May 1944. p78-84.
research. SR. May 1947. p96.
- hydraulic**
waterwheel testing. H. I. Howell. May 1944. p85-8.
- steam**
blades, developments. Jan. 1944. p21; Jan. 1946. p18.
blades, low-pressure. WN. Mar. 1946. p62.
central-station development. C. B. Campbell. May 1947. p79-83.
characteristics, for locomotive use. J. A. Newton. July 1948. p119-21.
college laboratory. F. K. Fischer and W. R. Harris. Sept. 1946. p142-4.
developments. Jan. 1948. p3; Jan. 1949. p3.
governor. A. F. Schwendner and J. R. Carlson. Mar. 1949. p42-6.
impulse-blade studies. R. P. Krnon. Aug. 1941. p35-8.
industrial. W. Schmid. Nov. 1948. p191-2; Jan. 1949. p5.
locomotive, geared, principles of operation. J. S. Newton and W. A. Brecht. Mar. 1945. p37-40.
mid-century review and forecast. D. W. R. Morgan. Jan. 1950. p7-17.
supervisory instruments. H. C. Werner and G. V. Krenikoff. Feb. 1943. p30 2.
3600-rpm, ratings. Sept. 1946. p131-3.
tie-line load regulator. WN. Nov. 1950. p254.
See also Book review; Casting; High-temperature alloy; Jet engines; Laboratory; Locomotive; Nozzle; Power plant.
- Turbine generator.** See Power plant.
- Turbovane.** See Air handling.
- Twin motor.** See Motor.

U

- Ultra-high frequency.** See Generator.
- Ultraviolet**
measurement. WN. Nov. 1942. p136.
See also Lamp.
- Unionmelt welding.** See Welding.
- Unit substation.** See Substation.
- Uranium**
production. Jan. 1946. p13.
See also Nuclear energy.
- Uranium pile.** See Nuclear Energy.

V

- Vacuum**
high. Jan. 1947. p20.
leak detection. SR. May 1946. p77.
leak detection, electronic. H. A. Thomas, T. W. Williams, and J. A. Hipple. July 1946. p108-10.
review. July 1946. Inside-front cover.
See also Mass spectrometer; Pump.
- Vacuum cleaner, toss-away bag.** WN. May 1950. p154.
- Vacuum pump.** See Pump.
- Vanadium, metal preparation.** SR. July 1950. p175.
- Van de Graaff generator.** See Particle accelerator.
- Vaporized metal.** See Manufacturing methods.
- Variable-speed drive.** See Speed control.
- Variable-voltage drive.** See Speed control.
- Varnish.** See Corrosion; Insulation, electrical.
- Ventilation**
Pennsylvania Turnpike, fan drives. S. F. Henderson. Nov. 1942. p123.
vehicle. WN. Sept. 1948. p160.
See also Air handling; Blower; Fan.
- Vertical transportation.** See Electric stairway; Elevator.
- Vibration, eliminated on tunnel fan drives.** S. F. Henderson. Nov. 1942. p123.
- Vibration measurement**
resonant-tube vibration-frequency indicator. WN. Nov. 1946. p188.
seismic-type vibration-frequency indicator and recorder. WN. Nov. 1943. p135; Jan. 1945. p28; July 1949. p111.
vibrating-reed vibration-frequency indicator. WN. May 1941. p30; WN. Sept. 1944. p160.
See also Balancer.
- Viscosimeter, continuous viscosity controller.** WN. Sept. 1950. p224.
- Vinicode.** See Supervisory control.
- Voltage multiplier.** See Particle accelerator, types.
- Voltage regulator.** See Regulator.

W

- Washer, clothes**
Laundromat, bactericidal action. SR. May 1949. p91.
Laundromat, development. WN. Nov. 1947. p191.
rigid-mount Laundromat. WN. May 1950. p154.
- Washing.** See Laundry.
- Water, pure.** SR. Sept. 1945. p158.
- Water cooler.** See Refrigeration.
- Water heater.** See Cathodic protection.
- Waterwheel testing, Gibson method.** H. I. Howell. May 1944. p85-8.
- Waterwheel turbine.** See Waterwheel testing.

Watt-hour meter. See Meter.
Wave propagation. See Frequencies.
Welding
arc
 a-c, 400-ampere. W.N. May 1945. p95.
 a-c, multiple operator. Jan. 1945. p19.
 a-c, rods. W.N. May 1945. p94.
 a-c, tack. W.N. May 1945. p95.
 arc blow, d-c. SR. May 1942. p59.
 automatic. W.N. Mar. 1948. p64.
 developments. Jan. 1949. p24.
 d-c, lightweight. Jan. 1945. p23.
 d-c, multiple operator. Jan. 1945. p20.
 electrode. W.N. Sept. 1948. p159.
 high-frequency control for a-c. SR. Nov. 1943. p125.
 lighting. SR. Mar. 1944. p58; Jan. 1945. p19; W.N. Mar. 1948. p63.
 mobile. W.N. Nov. 1945. p175.
 multiple-operator sets for shipyards. C. A. Rober and W. B. Strathdee. Nov. 1942. p102-4.
 power analysis. F. B. Mead. Mar. 1949. p40-1.
 review. C. P. Croco. Mar. 1949. p34-9.
 selenium. W.N. Nov. 1949. p175.
 streamlined m-g set. W.N. Aug. 1942. p87.
 studies. SR. July 1949. p122.
 Unionmelt welding process. I. F. Nutting. Nov. 1942. p126-8.
resistance
 capacitors, series and shunt. J. E. Pankow and N. A. Smith. Mar. 1944. p34-8.
 control. Jan. 1947. p24; W.N. Mar. 1947. p47.
 current indicator. SR. Nov. 1943. p122.
 drop-type gas tanks. I. F. Nutting. Nov. 1943. p120-1.
 electronic controls. T. R. Lawson. Nov. 1942. p109-13.
 electronic timer. W.N. Feb. 1942. p27.

Welding (continued)
 for thin parts. W.N. July 1950. p190.
 machines and their applications. E. J. Del Vecchio. Nov. 1942. p105-8.
 oscillations. R. E. Marbury. Nov. 1943. p126.
 review and developments. C. B. Stadum. July 1950. p178-82.
 stored energy. C. E. Smith. May 1941. p8-10.
 stored energy, control. W.N. May 1942. p62.
 three-phase control. W.N. July 1949. p113.
 timer. W.N. July 1949. p112.
 timing. W.N. Nov. 1944. p190-2.
 See also Air cleaner; Capacitor.
Westinghouse Educational Center. See Training.
Westinghouse, George. biography. C. A. Scarlott. Sept. 1946. p145-8; W.N. Mar. 1946. p62.
Wind indicator. See Airport.
Windshield test. See Aircraft.
Wind tunnel
 descriptions. F. L. Wattendorf and S. P. Johnston. Nov. 1941. p67.
 drive, Moffett Field. Jan. 1949. p25.
 drives. L. A. Kilgore and J. C. Fink. Nov. 1941. p71; S. L. Lindbeck and L. A. Kilgore. Mar. 1948. p57-62; Jan. 1945. p24; Jan. 1947. p31.
 50 000-hp supersonic. S. L. Lindbeck. Mar. 1950. p112-4.
 for turbine blading. Jan. 1945. p26.
 gas-turbine development. W.N. Mar. 1949. p50.
Wire enamel. See Insulation, electrical.
Wiring
 home, handbook. W.N. Nov. 1945. p174.
 preformed. Jan. 1947. p18.
 See also Manufacturing methods.

Wood, industry. C. A. Scarlott. Sept. 1948. p130-6.
Wood gluing. See Heating.
Work, definition. Nov. 1943. p117.

X

X-ray
 Biplane Marker. Jan. 1944. p30.
 diffraction, high temperature. SR. Sept. 1949. p140.
 glass shield. SR. Mar. 1949. p59.
 high-speed, Micronex. C. M. Slack, L. F. Ehrke, and C. T. Zavales. July 1945. p99; Jan. 1947. p19.
 high-speed, development, Micronex. Jan. 1945. p28.
 industrial, production line. Jan. 1945. p24.
 measurement, photomultiplier. SR. July 1946. p128.
 medical, developments. Jan. 1948. p21.
 medical, mobile. Jan. 1947. p23.
 motion picture. Jan. 1948. p28.
 package, inspection. Jan. 1944. p30; Jan. 1945. Inside-back cover.
 review. July 1945. Inside-front cover.
 rocket inspection. Jan. 1945. p29.
 timing, phototube. Jan. 1945. p29; W.N. Mar. 1945. p54.
 tube, dental. Jan. 1948. p22.
 tube, research. SR. Nov. 1948. p185.
 See also Fluoroscope; Thickness gauge; Tube.

Z

Zinc. See Capacitor-case finish.
Zircon. See Insulation, electrical.
Zirconium, metal. Jan. 1948. p29.

AUTHOR INDEX

Abbott, C. T.
 New England Utility Adopts Cubicle Switchgear. May 1943. p52-4.
Ackermann, Otto
 Electronic Oscillograph—Time Microscope. Nov. 1944. p169-73.
Alben, F. L.
 Turbine Locomotive Proves Itself. May 1946. p89.
Allen, C. H.
 Welding Haze Eliminated. July 1945. p120.
Angello, S. J.
 Radar Receivers and Crystal Rectifiers. Mar. 1947. p54-5.
 Semiconductors. July 1950. p183-6.
Arnold, St. George Tucker
 Experience with Banked Secondaries. Mar. 1946. p45-7.
Ankey, John S.
 Corona Breakout Achieved in High-Voltage Machines. Aug. 1941. p43-7.
Austin, B. O.
 24-Volt Aircraft Electrical Systems. Sept. 1950. p212-6.
Baker, B. P.
 High-Voltage Compressed-Air Circuit Breaker. Feb. 1943. p8-10.

Baker, R. R.
 Power Equipment for the Paper Mill. Nov. 1947. p167-71.
Balthis, D. L.
 Color Television—A Reality. Sept. 1946. p155-9.
Barnea, Thomas D.
 Development of Watthour Meters. Nov. 1950. p226-32.
Baston, C. E.
 Power Plants for the C & O Locomotives. Sept. 1947. p132-5.
Beck, E. W.
 Comparison of Lightning-Protection Methods. Nov. 1942. p133-5.
 Electronic Oscillograph—Time Microscope. Nov. 1944. p169-73.
 Lightning Arrester—Electrical Protector. May 1950. p148-52.
 Lightning Arresters for Rotating Machines. May 1949. p72-3.
 Lightning Protection for Railway Signal Circuits. Nov. 1933. p118-9.
 Lightning Protection for Rotating Machines. Mar. 1944. p60-2.
 Lightning Strikes Prefer Tall Structures. July 1949. p124-8.

Beck, E. W. (continued)
 Selection of Lightning-Arrester Voltage Ratings. Feb. 1942. p7-10.
Bege, E. W.
 Applications of Mercury-Vapor Lamps. Mar. 1948. p52-6.
 Progress with Mercury Lamps. Nov. 1947. p179-83.
Bejarano, J. R.
 Stand-In for the Central Station. Nov. 1944. p176-7.
Bellaachi, P. L.
 Impulse Testing—A Power-Transformer Routine. May 1945. p66-70.
Bendz, W. I.
 Computing Transformer Coils Graphically. July 1944. p115-7.
Benedict, F. R.
 Development of Transmission and Distribution Systems. Jan. 1950. p62-9.
Benninghoff, W. E.
 External Surface Hardening by Induction Heating. Feb. 1942. p14-6.
Bennon, S.
 Sound and the Human Ear. Mar. 1949. p60-4.

- Berberich, L. J.**
Corona Blackout Achieved in High-Voltage Machines. Aug. 1941. p43-7.
- Berkley, L. H.**
Rototrol in Steelmaking. May 1948. p73-4.
Sewaren Station—A Pioneer Power Plant. Sept. 1949. p142-6.
Tapping the Underwater Oil Reservoir. July 1949. p104-5.
- Blackburn, J. L.**
Distance Relaying with Low-Tension Potentials. May 1943. p61-4.
- Boggs, F. W.**
Reastron—Generator of Microwaves. Mar. 1947. p57-60.
- Bostwick, M. A.**
Protection of Three-Terminal Lines. Aug. 1943. p76-9.
- Bowman, R. A.**
Air-Cooled Steam Condenser. May 1945. p90-1.
- Boyer, J. L.**
Power for Atom Smashers. Mar. 1950. p115-8.
- Brandt, W. H.**
Kovar—An Alloy That Seals Metal to Glass. July 1945. p117-9.
- Brecht, W. A.**
How the Geared-Turbine Locomotive Works. Mar. 1945. p37-40.
- Brown, R. L.**
Transformer Radiators Separately Banked. Feb. 1943. p27-9.
- Caldwell, G. A.**
Adjustable-Speed D-C Drives. Aug. 1942. p75-80.
Electronic Load Control of Machine Tools. July 1945. p104-5.
Ship-Propeller Milling with Tracer Control. May 1945. p72-6.
Wide Speed Ranges with Servomechanisms. Sept. 1945. p157.
- Campbell, C. B.**
Trends in Steam-Turbine Development. May 1947. p79-83.
- Carlson, J. R.**
Hydraulic Steam-Turbine Governor. Mar. 1949. p42-6.
- Carville, T. E. M.**
Application of Small Motors. Mar. 1949. p52-7.
- Cheek, R. C.**
Power-Line Carrier Communication. Sept. 1947. p151-5.
Power-Line Carrier Modulation Systems. Mar. 1945. p41-5.
Quick Determination of Safe Transformer Overloads. Feb. 1943. p11-5.
Simple Single-Sideband Carrier System. Nov. 1945. p179-83.
- Chesnut, Frank T.**
Heating by High-Frequency Induction. Feb. 1942. p11-3.
High Frequency—Metallurgist Extraordinary. Nov. 1941. p76-80.
- Colaiaco, A. P.**
High Vacuums and How They Are Obtained. July 1946. p103-7.
- Collman, John W.**
Big Guns of Nuclear Physics. May 1947. p70-5.
Resonant-Cavity Magnetron. Nov. 1946. p172-5.
- Condon, E. U.**
Physics Gives Us—Nuclear Engineering. Nov. 1945. p167-73.
- Conrad, Joseph D.**
Models Help Determine Pipe Stresses. May 1941. p22.
- Cox, J. H.**
Ignitron Mercury-Arc Rectifier. Mar. 1944. p51-5.
Place of the Sealed Metal Ignitron. Nov. 1946. p183-7.
- Criner, H. E.**
Mechanical Problems Solved Electrically. Mar. 1946. p48-56.
- Crocco, C. P.**
Progress in Arc Welding. Mar. 1949. p34-9.
- Cunningham, J. C.**
Direct-Current Power for Aircraft. Mar. 1946. p57-61.
Trends in Powerhouse Auxiliary Practice. Nov. 1941. p81-4.
- Del Vecchio, E. J.**
Resistance-Welding Machines and Their Applications. Nov. 1942. p105-8.
- Denault, C. L.**
Thermal Protection of Power Transformers. July 1948. p103-5.
- Derr, W. A.**
By a Flick of the Finger (Supervisory Control). Nov. 1949. p162-7.
- Dodge, Richard W.**
Nuclear Reactions of Light Elements. May 1950. p138.
Rectifier Railway Car. Nov. 1949. p179-80.
Vertical Transportation. Mar. 1950. p98-104.
- Drake, C. W.**
Induction Motor with Five-to-One Speed Range. May 1941. p23.
- Dralle, H. E.**
Locomotives Keep Up with the World. Nov. 1948. p186-90.
Mass Spectrometer for Gas Analysis. Nov. 1943. p127-30.
- Duffy, P. A.**
Radiation Detectors—Atomic-Age Police Force. Sept. 1949. p150-3.
- Dyer, L. W.**
New Controls for Industry. Sept. 1949. p159-60.
- Ehrke, L. F.**
Millionth of a Second X-ray Snapshots. July 1945. p98-103.
- Elsey, Howard M.**
Iodide-Treated Brushes Maintain the Essential Commutator Film. Sept. 1945. p144-7.
- Erbe, J. Raymond**
Electrolytic Tin-Plating Lines and Reflowing Methods. Nov. 1942. p117-22.
- Evans, R. D.**
Capacitors Let Two Lines Do Work of Three. Feb. 1943. p24-6.
Selection of Lightning-Arrester Voltage Ratings. Feb. 1942. p7-10.
- Evans, Walter C.**
Electronics—Prodigy of Electrical Science. Jan. 1950. p88-96.
- Fahnoe, H.**
Transformers Are Loud—Only If You Hear Them. May 1942. p55-7.
- Fink, J. C.**
Power for Man-Made Hurricanes. Nov. 1941. p71-3.
- Finzi, L. A.**
Lightning Protection for Rotating Machines. Mar. 1944. p60-2.
- Fischer, Fred K.**
Gas Turbine—Harness for Hot Air. May 1944. p78-84.
Package Steam Plant for Laboratories. Sept. 1946. p142-4.
- Flagle, Charles D.**
Place of the Gas Turbine in Aviation. July 1945. p121-7.
- Flatt, H. L.**
Navy's High-Current Test Laboratory. Nov. 1947. p175-8.
- Fockler, T. C.**
Improved Induction Motor. Mar. 1947. p50-3.
- Forbes, A. D.**
Banked Secondary Transformer. Mar. 1946. p43-5.
- Ford, J. G.**
Inhibitors Lengthen Life of Transformer Oil. Nov. 1950. p250-2.
- Formbals, W. H.**
Improved Induction Motor. Mar. 1947. p50-3.
Rototrol—A Versatile Electric Regulator. May 1942. p51-4.
- Fountain, L. L.**
Motoring Protection for A-C Generators. Nov. 1946. p190-1.
- Foy, R. H.**
Radar Evolution Takes Another Step. Nov. 1949. p188-90.
- Freeman, G. A.**
Krypton Lamp for All-Weather Landings. May 1948. p90-1.
Short-Arc Mercury Lamp. Mar. 1950. p105-6.
- Friech, E.**
Rototrol and Its Applications. July 1947. p121-7.
- Frostick, H. G.**
Control of Electric-Arc Furnaces. Nov. 1945. p188-91.
- Frye, R. A.**
Corrosion Ratings for Metals and Alloys. Mar. 1945. p56-9.
- Furnas, C. C.**
Future Sources of Power. Feb. 1943. p2-7.
- Gard, J. D.**
Navy's High-Current Test Laboratory. Nov. 1947. p175-8.
- Geloh, John**
Molybdenum—Practical Structural Material. Sept. 1947. p156-9.
- Giesecke, H. W.**
Lost-Wax Casting. Nov. 1946. p180-2.
- Giles, Robert S.**
Story of the Stoker. July 1950. p166-71.
- Godsey, Frank W., Jr.**
Place of the Gas Turbine in Aviation. July 1945. p121-7.
- Grant, George**
Silicone Insulation Proved by Test. Sept. 1945. p135-40.
- Gray, T. H.**
Why Steel Hardens. Feb. 1943. p29.
- Graybrook, H. W.**
Power Plants for Railroad Cars. May 1946. p73-5.
- Griscom, S. B.**
Merits and Methods of Generator Grounding. Feb. 1943. p33-9.
Suppression of Surges on Arc Furnaces. May 1941. p11-4.
- Gurin, H. M.**
Television-Studio Lighting. Nov. 1950. p245-9.
- Hague, C. S.**
Power for Atom Smashers. Mar. 1950. p115-8.
- Hanft, H. H.**
Power Plants for Railroad Cars. May 1946. p73-5.
- Harder, E. L.**
Air-Core Couplers Simplify Differential Protection. May 1942. p43-5.
Computer—Mathematical Merlin. Nov. 1948. p178-83.

- Harder, E. L. (continued)**
 Modern Power-Line Carrier Equipment. July 1944. p98-104.
 Protection of Three-Terminal Lines. Aug. 1943. p76-9.
- Harris, W. R.**
 Package Steam Plant for Laboratories. Sept. 1946. p142-4.
- Haeverstick, S. A.**
 Navy's High-Current Test Laboratory. Nov. 1947. p175-8.
- Heck, J. R.**
 Point-to-Point Radio Communication. Mar. 1950. p107-11.
- Heitcheue, Regis D.**
 Bargains in Heat—Buy One Btu, Get Two Free. Aug. 1941. p39-42.
- Henderson, S. F.**
 Small Damper Keeps Fan System from Oscillating. Nov. 1942. p123.
- Hertel, M. F.**
 Thermoset Varnish—The First Line of Defense. July 1948. p124-8.
- Herwald, S. W.**
 Forms and Principles of Servomechanisms. Sept. 1946. p149-54.
- Hibben, S. G.**
 Light, Yesterday and Tomorrow. Jan. 1950. p80-7.
 Making Light for Tomorrow. May 1941. p3-7.
 Storage Reservoirs of Light. May 1942. p35-7.
- Hill, Charles F.**
 Corona Blackout Achieved in High-Voltage Machines. Aug. 1941. p43-7.
- Hill, J. E.**
 From Sixty Cycles to Super-Frequencies. Sept. 1946. p134-40.
- Hill, L. R.**
 Graphical Statistics—An Engineering Approach. Part I. Mar. 1950. p120-3; Part II. May 1950. p157-60.
- Hipple, J. A.**
 Detecting Vacuum Leaks Electronically. July 1946. p108-10.
 Mass Spectrometer for Gas Analysis. Nov. 1943. p127-30.
- Hobbs, M. H.**
 Circuit Breakers—Oil or Oilless? July 1947. p98-102.
- Hobson, J. E.**
 Single-Pole Fault Clearing for Greater Stability. Feb. 1942. p23-5.
 Suppression of Surges on Arc Furnaces. May 1941. p11-4.
- Hodnette, J. K.**
 Air-Cooled Transformers for Indoor Distribution Substations. Nov. 1944. p182-4.
 Hiperail—A New Magnetic Steel and Its Use in Transformers. Aug. 1941. p52-6.
- Holler, H. D.**
 Corrosion Ratings for Metals and Alloys. Mar. 1945. p56-9.
- Hopper, D. L.**
 High Vacuums and How They Are Obtained. July 1946. p103-7.
- Horrell, R. F.**
 Silicone Insulation Proved by Test. Sept. 1945. p135-40.
- Horstman, C. C.**
 Electrical Steel for Transformers. July 1944. p120-3.
 Hiperail—A New Magnetic Steel and Its Use in Transformers. Aug. 1941. p52-6.
 Smaller, Lighter Radio Transformers, via Hiperail Cores. May 1943. p65.
- Howell, H. I.**
 Measuring Hydraulic Turbine Efficiency. May 1944. p85-8.
- Hutchesson, J. A.**
 Atomic Energy—Engineering Problems in Its Industrial Application. Mar. 1948. p37-8.
 Nuclear-Energy Potentialities. July 1946. p125-7.
 Research. Jan. 1950. p44-7.
- Hyde, M. A.**
 More Arteries for Petroleum. Aug. 1942. p81-5.
 Solving a Motor-Starting Voltage Problem. May 1944. p70-3.
- Ivy, J. G.**
 Rototrol Control of Mine-Hoist Drives. July 1944. p124-7.
- James, W. G.**
 Improved Condenser-Bushing Insulation. May 1944. p66-9.
 Smaller Transformers by Forced Cooling. Aug. 1942. p97-9.
- Jernstedt, George W.**
 Brighter Finishes via PR Plating. May 1950. p139-43.
 PR Plating—A New Tool for Electroplaters. May 1947. p89-92.
- Johns, F. J.**
 Motor-Starting Power Factor and Voltage Dip. Aug. 1943. p95-6.
- Johnson, A. A.**
 Application Considerations of Series Capacitors. Sept. 1948. p155-6.
 How to Apply Neutral Grounding Devices. May 1943. p66-9.
 Series Capacitors Approach Maturity. July 1948. p106-11.
- Johnson, Welton V.**
 Contacts That Do Not Bounce. May 1942. p60-1.
- Johnston, S. Paul**
 Wind Tunnels—Birthplace of Streamlining. Nov. 1941. p67-70.
- Kahler, William H.**
 Engineering for Seeing with Fluorescent Lighting. Aug. 1943. p97-101.
 Lighting with 3000-Watt Mercury Lamps. Sept. 1944. p144-6.
- Kauppi, T. A.**
 Silicone Insulation Proved by Test. Sept. 1945. p135-40.
- Kelman, D. M.**
 Nondestructive Flaw Detection. July 1949. p115-8.
- Keneipp, H. E.**
 Direct-Current Power for Aircraft. Mar. 1946. p57-61.
 Large Multispeed A-C Motors. Aug. 1943. p82-4.
- Kerr, Charles, Jr.**
 Why a Geared-Turbine Steam Locomotive. Mar. 1945. p34-6.
 Why a Turbine-Electric Steam Locomotive. Sept. 1947. p130-2.
- Kilgore, L. A.**
 Big Winds for Model Planes. Mar. 1948. p57-62.
 Power for Atom Smashers. Mar. 1950. p115-8.
 Power for Man-Made Hurricanes. Nov. 1941. p71-3.
- Kinn, T. P.**
 Dielectric Heat—Wood-Fabrication Tool. Sept. 1948. p138-43.
- Kirby, R. E.**
 Dielectric Heat—Wood-Fabrication Tool. Sept. 1948. p138-43.
- Knowles, D. D.**
 Reliability in Electronics. Nov. 1950. p242-4.
- Kraak, S.**
 High-Speed Radar Switch. Sept. 1947. p136-7.
- Kraak, S. (continued)**
 Klystron—Radar-Receiver Oscillator. Nov. 1946. p176-9.
- Krenikoff, G. V.**
 Automatic Watchman for Turbines. Feb. 1943. p30-2.
- Kroon, R. P.**
 Jet Engine Comes of Age. Sept. 1950. p194-200.
 New Facts about Impulse Blades. Aug. 1941. p35-8.
- Laffoon, C. M.**
 Evolution and Eventualities of A-C Power. Jan. 1950. p20-30.
 Status of Large Generators. May 1947. p84-6.
 Why the Electronic Exciter. May 1946. p84-5.
- Langer, B. F.**
 Laying Stress on Strains. Nov. 1942. p129-32.
- Latimore, E. S.**
 Kovar—An Alloy That Seals Metal to Glass. July 1945. p117-9.
- Laughner, Val**
 Limits to 3600-Rpm Generating Unit Raised. Sept. 1946. p130-3.
- Lawrence, R. F.**
 Construction and Tests of an Ignitron Exciter. May 1946. p86-8.
- Lawson, T. R.**
 Mototrol and Its Applications. Mar. 1944. p39-42.
 Resistance Welds with Electronic Control. Nov. 1942. p109-13.
- Layton, W. M.**
 Battle of the Substitutes. Nov. 1941. p91-3
- Lee, P. R.**
 Thermostats for Electric Appliances. Jul. 1949. p106-10.
- Lee, Reuben**
 Fosterite Insulation for Small Transformers. Nov. 1950. p233-4.
- Leeds, W. M.**
 Switching of High-Voltage Lines and Cables. Nov. 1949. p181-5.
- Levy, C. C.**
 Electrical Equipment for Induction Heating. Feb. 1942. p20-2.
- Lewis, W. A.**
 Principles of High-Speed Relaying. Part I. Aug. 1943. p91-4; Part II. Nov. 1943. p131-4.
- Lindbeck, S. L.**
 Big Winds for Model Planes. Mar. 1948. p57-62.
 50 000-Hp for a Supersonic Wind Tunnel. Mar. 1950. p112-4.
 Rototrol Reduces Size of Ship Drives. May 1947. p87-8.
- Lingal, H. J.**
 Improved Condenser-Bushing Insulation. May 1944. p66-9.
- Loeb, Capt. Leonard B.**
 Naval Research—Insurance for Peace. Sept. 1945. p154-6.
- Ludwig, L. R.**
 Industry's Electrical Drives in the 20th Century. Jan. 1950. p70-9.
- Lunas, L. J.**
 Electrical Equipment for Induction Heating. Feb. 1942. p20-2.
- Lundahl, Walter N.**
 Measuring Thickness without Contact. Mar. 1948. p42-3.
- Lynn, C.**
 Excitation Systems for Turbine Generators. July 1947. p115-20.
 Rototrol Provides Generator Excitation. Mar. 1948. p34-6.

- Mabry, F. S.**
Principles and Prospects of Microwave Communication. May 1949. p74-7.
- MacNeill, J. B.**
Switchgear Developments and Trends. Jan. 1950. p31-43.
- Marbury, R. E.**
Damping Oscillations in Welding Capacitors. Nov. 1943. p126.
Solving a Motor-Starting Voltage Problem. May 1944. p70-3.
Use of Capacitors in Industrial Plants. May 1948. p84-9.
- Marcum, C. R.**
Construction and Tests of an Ignitron Exciter. May 1946. p86-8.
- Marshall, D. E.**
Place of the Sealed Metal Ignitron. Nov. 1946. p183-7.
- McCann, C. D.**
Comparison of Lightning-Protection Methods. Nov. 1942. p133-5.
Computer—Mathematical Merlin. Nov. 1948. p178-83.
Lightning Protection for Rotating Machines. Mar. 1944. p60-2.
Line Constants and Circle Diagrams—Simplified. Aug. 1941. p57-60.
Mechanical Problems Solved Electrically. Mar. 1946. p48-56.
- McJain, J. R.**
ABC of Transformer Oil Conservation. Nov. 1941. p89-90.
- McClure, F. N.**
Amplification by Magnetization. May 1949. p92-6.
Magnetic Amplifiers in Industry. Sept. 1950. p201-5.
- Mead, F. B.**
Power Analysis of A-C Welders. Mar. 1949. p40-1.
- Meyer, Charles A.**
Gas Turbine—Harness for Hot Air. May 1944. p78-84.
- Miner, J. D.**
A-C Systems for Aircraft. Sept. 1945. p148-53.
24-Volt Aircraft Electrical Systems. Sept. 1950. p212-6.
- Monteith, A. C.**
Ignitron Locomotive. July 1950. p187-8.
Modern Equipment Aids System Savings. Sept. 1944. p147-52.
Priceless Ingredients of Industry Electrification. Jan. 1950. p2-6.
- Moore, R. W.**
Eight-to-One Range Adjustable-Speed D-C Motor. Nov. 1947. p184-5.
- Morgan, D. W. R.**
Central-Station Steam-Power Generation—Its Past and Its Prospects. Jan. 1950. p7-17.
Newcomer—The Gas Turbine. Jan. 1950. p18-9.
- Morton, H. Earl**
Ship-Propeller Milling with Tracer Control. May 1945. p72-6.
- Moses, G. L.**
New Silicone Resins Boost Insulation Temperature Limits. Sept. 1944. p138-41.
Proved Technique for Sealing Huge Shipping Containers. May 1945. p92-3.
Silicone Insulation Proved by Test. Sept. 1945. p135-40.
Statistics—The Insulation Engineer's Crystal Ball. Sept. 1948. p150-3.
Synthetic Insulation and the Ten-Degree Rule. July 1945. p106-7.
Thermalastic Insulation. July 1950. p163-5.
- Moses, G. L. (continued)**
Thermal Endurance of Silicone Motor Insulation. Nov. 1949. p168-9.
- Mossbart, D. J.**
Spreader Stoker. July 1950. p171-4.
- Muller, H. N., Jr.**
Reclosing Single-Circuit Tie Lines. Mar. 1945. p60-3.
Single-Pole Fault Clearing for Greater Stability. Feb. 1942. p23-5.
- Murphy, L. J.**
Single-Phase Lifeline Motor. Sept. 1949. p147-9.
- Nelson, M. A.**
Power-Generating Units—All in One. July 1948. p116-8.
- Newton, John S.**
How the Geared-Turbine Locomotive Works. Mar. 1945. p37-40.
Torque Characteristics of Steam Turbines. July 1948. p119-21.
- Nobles, C. E.**
Television Programs from the Stratosphere. Nov. 1945. p162-6.
- Norvell, William C.**
Airport Approach Lighting for Landings. Sept. 1949. p130-3.
- Nutting, I. F.**
Drop-Type Gas Tanks via Electronics. Nov. 1943. p120-1.
Welding by Unionmelt Process. Nov. 1942. p126-8.
- Odishaw, Hugh**
Agro-Industry in the Everglades. May 1946. p66-72.
Mining and Processing of Phosphate. July 1946. p111-6.
Nuclear Reactions. Nov. 1946. p166-71.
Radar Marine Navigation. July 1946. p98-102.
- Oman, Carl**
Telemeter Transmitter without Moving Contacts. May 1948. p92-3.
- Oplinger, K. A.**
Gyroscopes and Their Applications. May 1948. p75-9.
- Opasahl, A. M.**
Lightning Protection of Domestic Watthour Meters. May 1942. p38.
- Ouborn, H. B., Jr.**
External Surface Hardening by Induction Heating. Feb. 1942. p14-6.
- Parker, W. W.**
Reclosing Single-Circuit Tie Lines. Mar. 1945. p60-3.
- Parsons, John S.**
Banking of Distribution Transformers—The Methods and Their Merits. Mar. 1946. p39-42.
Indoor Substation—Completely Air Cooled. Nov. 1944. p178-81.
New Applications for Secondary Networks. May 1941. p24-7.
Industrial Plants Adopt Secondary Networks. Nov. 1941. p85-8.
Modern Distribution Substations—A Growing Trend. May 1949. p82-6.
Unit-Type Generating Station Networks. May 1947. p93-4.
- Partlow, J. G.**
Power-Generating Units—All in One. July 1948. p116-8.
Small Turbine Generators Now Standardized. Nov. 1947. p172-4.
- Peck, C. E.**
Controlled-Atmosphere Electric Furnaces. Nov. 1948. p162-6.
- Pennow, W. A.**
Landing Airplanes in Any Weather. July 1947. p105-7.
- Pflug, C. E.**
Secondary Network Proves Its Flexibility. Nov. 1943. p111-4.
- Phillippi, A. K.**
Electric-Furnace Brazing—Its Principles and Practice. May 1945. p84-9.
- Piersen, P. R.**
Indoor Substation Switchgear. Nov. 1944. p184-6.
Switchgear for Unit Substations. May 1949. p87-9.
- Ponkow, J. E.**
Capacitors Aid Resistance Welders. Mar. 1944. p34-8.
- Ponomareff, Alexander I.**
Principles of the Axial-Flow Compressor. Mar. 1947. p40-6.
- Putz, T. J.**
Experimental Locomotive-Type Gas Turbine. Mar. 1947. p35-9.
Gear Grinding—A New Method. July 1946. p117.
Industrial Gas Turbine in Service. Nov. 1949. p191-2.
Power Plants for the C & O Locomotives. Sept. 1947. p132-5.
Turbine Locomotive Proves Itself. May 1946. p89.
2000-Hp Gas Turbine on Trial. Mar. 1948. p39-41.
- Putnam, H. V.**
Tomorrow's Transformer Today. May 1941. p19-21.
- Rawlins, H. L.**
Modern High-Voltage Fuses. Sept. 1944. p153-7.
Use of Limiters in War-Plant Networks. Feb. 1943. p18-23.
- Redding, A. H.**
Future Forms of Aviation Gas Turbines. July 1947. p110-4.
- Reed, F. L.**
D-C Motors on A-C. July 1947. p103-4.
- Risler, C. B.**
A-C Crane Hoist with Reactor Control. May 1945. p77-81.
- Rober, C. A.**
Down to the Sea in Ships—With Arc Welding. Nov. 1942. p102-4.
- Roberts, R. B.**
Hydrogen Cooling for Turbine Generators. Sept. 1947. p138-42.
- Russell, Ralston, Jr.**
Zircon Porcelain—A Modern Ceramic. May 1946. p90-5.
- Satterlee, W. W.**
Dry-Type Transformers for Underground Use. Sept. 1948. p146-9.
- Searlott, Charles A.**
American Merchant Marine Reborn. Sept. 1944. p131-7.
Balancing the Tin Budget. Nov. 1942. p114-6.
Bright New Future of Coal. Sept. 1947. p143-9.
Coast Guard. Sept. 1950. p206-11.
Day Downs for Jet Propulsion. Mar. 1945. p17-53.
Electronic Elimination of Oil Mists. May 1943. p42-5.
Electronics in Industry. Nov. 1943. p106-10.
Fame and Fortune of Magnesium. Mar. 1944. p43-5.
Fighting Bacteria with Ultraviolet. Feb. 1942. p3-6.
Fitted Tanks for Transformers. Aug. 1941. p74-5.
George Westinghouse—His Contribution to Tomorrow. Sept. 1946. p145-8.

- Scarlott, Charles A. (continued)
 Happy Landings—Aided by Instruments. May 1944. p89-90.
 High-Frequency Heating in Industry. July 1944. p105-10.
 High-Octane Fuel—Its Production and Significance. Nov. 1944. p162-8.
 How High Is the Sky. July 1948. p98-102.
 Iron Ore—What It Is, Where It Comes From, How Much Is Left. July 1945. p110-6.
 Locomotives, Present and Future. May 1946. p78-83.
 Magnesium Sources and Manufacture. Mar. 1944. p46-50.
 Matter of Meat. May 1949. p66-71.
 Meeting the Oil-Transportation Emergency. May 1943. p55-60.
 Paper Men Live By. Nov. 1947. p162-6.
 Role of the Engineering Laboratories. May 1950. p130-7.
 Safer Shipment. July 1950. p176-7.
 Silicones—Miracle of Molecule Engineering. Sept. 1945. p130-4.
 Steel—How Made and How Much. May 1948. p66-72.
 Stratovision—Over Another Hurdle. Sept. 1948. p137.
 Synthetic Rubber—Newest Major Industry. Aug. 1942. p88-92.
 Television Today. July 1949. p98-103.
 Trapping Dust Electrically. May 1942. p46-50.
 Tree—More Wood, More Products. Sept. 1948. p130-6.
- Schmid, W.
 Turbine for All Industry. Nov. 1948. p191-2.
- Schmidt, P. L.
 Graphical Statistics—An Engineering Approach. Part I. Mar. 1950. p120-3; Part II. May 1950. p157-60.
- Schneider, William
 Statistics—The Insulation Engineer's Crystal Ball. Sept. 1948. p150-3.
- Schulman, E. L.
 Asbestos-Fosterite—A New Synthetic Insulation for Commutators. Mar. 1947. p61-3.
 Fosterite—A Moistureproof Insulation. Nov. 1945. p184-6.
- Schwendner, A. F.
 Hydraulic Steam-Turbine Governor. Mar. 1949. p42-6.
- Seitz, Frederick, Jr.
 Relation Between Energy and Mass. Mar. 1946. p35-8.
- Semar, H. W.
 Gear Grinding—A New Method. July. 1946. p117.
- Sheets, Richard S.
 Sunlight from Electricity. Nov. 1949. p170-3.
- Shoupp, W. E.
 Big Guns of Nuclear Physics. May 1947. p70-5.
 Nuclear Reactions. Nov. 1946. p166-71.
 Structure of the Nucleus. July 1946. p118-24.
- Siegel, Sidney
 Mechanism of Magnetism. Aug. 1942. p71-4.
- Slack, Charles M.
 Millionth of a Second X-ray Snapshots. July 1945. p98-103.
- Sloat, T. K.
 Inhibitors Lengthen Life of Transformer Oil. Nov. 1950. p250-1.
- Smith, B. K.
 Switchgear for Unit Substations. May 1949. p87-9.
- Smith, C. E.
 Direct-Current Welding—With a Transformer. May 1941. p8-10.
- Smith, I. R.
 Characteristics of Copper-Oxide Rectifiers. Aug. 1913. p85-90.
 Characteristics of the Selenium Rectifier. Nov. 1946. p192-6.
 Common Circuits for Metal Rectifiers. May 1944. p76-7.
 Factors in Judging Selenium Rectifiers. Sept. 1949. p136-9.
- Smith, N. A.
 Capacitors Aid Resistance Welders. Mar. 1944. p34-8.
- Snyder, F. L.
 High-Voltage Power-Transformer Progress. Mar. 1948. p46-51.
 Power Transformer Investment. Sept. 1950. p217-22.
 Transformer and How It Grew. Jan. 1950. p50-61.
 Utilizing Full Transformer Capacity Safely. Aug. 1942. p93-6.
- Somes, Howard E.
 Internal Surface Hardening by Induction Heating. Feb. 1942. p17-9.
- Sonnemann, W. K.
 Predicting Performance of Bus-Differential Systems. Feb. 1942. p28-31.
- Spahr, J. C.
 Power-Generating Units—All in One. July 1948. p116-8.
- Speicher, H. W.
 Radiation Hazards—Atomic Age Problem. July 1949. p119-21.
- Stedum, C. B.
 Resistance Welding. July 1950. p178-82.
- Stein, J. M.
 Single-Phase Lifeline Motor. Sept. 1949. p147-9.
- Stewart, W. R.
 Suppression of Surges on Arc Furnaces. May 1941. p11-4.
- Strathdee, W. B.
 Down to the Sea in Ships—With Arc Welding. Nov. 1942. p102-4.
- Summer, G. L.
 Two Heat-Resisting Lubricants. Nov. 1947. p188-9.
- Sutton, G. F.
 Thermoset Varnish—The First Line of Defense. July 1948. p124-8.
- Thomas, H. A.
 Detecting Vacuum Leaks Electronically. July 1946. p108-10.
- Thompson, E. A.
 Transformers for Distribution Substations. Sept. 1949. p134-5.
- Tipton, E. W.
 Automatic Watchman for Air-Cooled Transformers. Nov. 1944. p187-9.
- Tirk, C. J.
 Amplifier for Magnetic Oscillographs. May 1950. p146-7.
- Travers, H. A.
 Network Calculator Brought Up to Date. July 1944. p111-4.
- Utman, L. J.
 Radar Evolution Takes Another Step. Nov. 1949. p188-90.
- Valentine, C. E.
 Generator Voltage Regulators and Their Applications. Nov. 1948. p167-72.
 Rototrol Provides Generator Excitation. Mar. 1948. p34-6.
- Van Sickle, R. C.
 Ordeal by Short Circuit. Aug. 1942. p66-70.
- Wagner, C. F.
 Line Constants and Circle Diagrams—Simplified. Aug. 1941. p57-60.
 Nuclear-Energy Potentialities. July 1946. p125-7.
- Wallace, J. M.
 Modern High-Voltage Fuses. Sept. 1944. p153-7.
- Warren, C. E.
 Use of Limiters in War-Plant Networks. Feb. 1943. p18-23.
- Watson, E. C.
 D-C Motors on A-C. July 1947. p103-4.
- Wattendorf, F. L.
 Wind Tunnels—Birthplace of Streamlining. Nov. 1941. p67-70.
- Wents, E. C.
 Predicting Performance of Bus-Differential Systems. Feb. 1942. p28-31.
 Saturable-Core Reactor Now Smaller, More Capable. Nov. 1943. p115-7.
- Werner, H. C.
 Automatic Watchmen for Turbines. Feb. 1943. p30-2.
- Whitehead, D. L.
 Analog Computer—New Techniques, New Components. Nov. 1950. p235-9.
- Wickerham, W. R.
 A-C Crane Hoist with Reactor Control. May 1945. p77-81.
 Improved Starting for Synchronous Motors. May 1943. p46-9.
- Williams, R. E.
 Progress in Atom Smashing. May 1941. p15-8.
- Williams, T. W.
 Detecting Vacuum Leaks Electronically. July 1946. p108-10.
- Witzke, R. L.
 Capacitors Let Two Lines Do Work of Three. Feb. 1943. p24-6.
- Woll, R. F.
 Unbalanced Voltage and Wound-Rotor Motors. May 1944. p91-4.
- Wommack, K. L.
 Measuring Torque without Contact. May 1947. p76-8.
- Woods, G. M.
 Trolley Coach—Its Place in Public Transportation. May 1947. p66-9.
- Woodeide, C. S.
 Blackout Control of Outdoor Sign and Street Lighting. May 1942. p37.
- Wright, R. H.
 Compensation Improves Variable-Voltage Drives. Aug. 1941. p50-1.
 Electric Dynamometers for Engine Testing. May 1942. p39-42.
- Zabour, R. L.
 Television-Studio Lighting. Nov. 1950. p245-9.
- Zavalas, C. T.
 Millionth of a Second X-ray Snapshots. July 1945. p98-103.

BIOGRAPHY

- Abbott, C. O. Mar. 1943.
 Ackermann, G. O. Nov. 1944.
 Ackerson, F. C. May 1943.
 Angello, S. J. Mar. 1947; July 1950.
 Arnold, St. George T. Mar. 1946.
 Arnold, St. George T. Mar. 1946.
 Foy, R. H. Mar. 1949.
 Foundation, L. L. Nov. 1946.
 Foster, N. C. Nov. 1945.
 Foster, N. C. Nov. 1945.
 Fountain, L. L. Nov. 1946.
 Foy, R. H. Mar. 1949.
 Freeman, C. A. May, 1948; Mar. 1950.
 Frost, R. A. C. Mar. 1945.
 Frye, R. A. C. Mar. 1945.
 Furness, C. C. Feb. 1943.
 Furness, C. C. Feb. 1943.
 Gards, J. D. Nov. 1947.
 Gault, J. Sep. 1947.
 Gelsbach, H. W. Nov. 1946.
 Gentry, F. W. Jr. July 1945.
 Godfrey, F. W. Jr. July 1945.
 Grant, C. Sep. 1945.
 Grant, H. M. Nov. 1950.
 Curtis, H. M. Nov. 1950.
 Haguen, C. S. Mar. 1950.
 Hagan, C. S. Mar. 1950.
 Handorf, E. L. May 1942; Aug. 1933; Nov. 1948; Nov. 1950.
 Harris, W. R. Sep. 1946.
 Haverstick, S. A. Nov. 1947.
 Heck, J. R. Mar. 1950.
 Hecht, R. D. Aug. 1941.
 Henderson, S. F. Nov. 1942.
 Hendon, S. F. Nov. 1942.
 Hertz, M. F. July 1948.
 Herwald, S. Sep. 1946.
 Hibbard, L. J. July 1950; Jan. 1946; Nov. 1948; Mar. 1949.
 Hibben, S. C. July 1946; Jan. 1942; Jan. 1950; p. 87.
 Hill, J. E. Sep. 1946.
 Hill, L. R. Mar. 1950.
 Hippel, J. A. Nov. 1943; July 1946.
 Hobbs, M. H. July 1947.
 Hobson, J. E. Feb. 1942.
 Hodnett, J. K. Aug. 1941; Nov. 1946.
 Holler, H. D. Mar. 1945.
 Hopper, D. L. July 1946.
 Horstman, C. C. Aug. 1941; July 1944.
 Howell, H. I. Mar. 1944.
 Hutchinson, J. A. Mar. 1948; Jan. 1950; p. 47.
 Hyde, M. A. Aug. 1942; May 1944.
 Ivy, J. C. July 1944.
 James, W. C. Aug. 1942; May 1944.
 Jernstedt, G. W. May 1947; May 1944.
 Johnson, A. A. May 1943; July 1940.
 Johnson, W. V. May 1942.
 Johnson, S. P. Nov. 1941.
 Kahler, W. H. Aug. 1943; Sep. 1944.
 Kauppi, T. A. Sep. 1945.
 Keltman, D. M. July 1949.
 Kennepf, H. E. Aug. 1943.
 Kerr, C. Mar. 1943; Sep. 1947.
 Kilgore, L. A. Nov. 1941; Mar. 1948; Mar. 1950.
 Kinn, T. P. Sep. 1948.
 Knowles, D. D. Nov. 1950.
 Kirby, R. E. Sep. 1948.
 Kroom, R. P. Aug. 1941; Sep. 1950; p. 200.
 Laffoon, C. M. May 1946; May 1947; Jan. 1950; p. 28.
 Langner, B. F. May 1947.
 Lawrence, R. F. May 1946.
 Lawson, T. R. Nov. 1942; Mar. 1944.
 Layton, W. M. Nov. 1941.
 Lee, R. R. July 1949.
 Lee, R. R. Nov. 1950.
 Leeds, W. M. Nov. 1949.
 Leary, C. C. Feb. 1942.
 Lewis, W. A. Aug. 1943.
 Lindbeck, S. L. May 1947; Mar. 1948; Mar. 1950.
 Lingel, H. J. May 1944.
 Loeb, L. B. Sep. 1945.
 Luedtke, L. R. Jan. 1950; p. 78.
 Lunda, L. J. Feb. 1942.
 Lundahl, W. N. Mar. 1948.
 Lynn, C. July 1947; Mar. 1948.
 Mabry, F. S. May 1949.
 MacNeill, R. E. Jan. 1949; p. 43.
 Marbury, R. E. Nov. 1943; May 1944; May 1948.
 Marchum, C. R. May 1946.
 Marshall, D. D. E. Nov. 1946.
 McCann, C. D. Nov. 1942; Mar. 1946; Nov. 1948.
 McClure, F. N. May 1949.
 Mead, F. B. Mar. 1949.
 Meyer, C. A. Sep. 1944.
 Miner, J. D. Sep. 1945.
 Moncrief, A. C. Sep. 1944; Jan. 1950; p. 5.
 Moore, R. W. Nov. 1941.
 Morgan, D. W. R. Jan. 1950; p. 15.
 Morton, H. E. May 1945.
 Moore, C. T. Sep. 1944; Sep. 1945.
 Moses, G. L. Sep. 1944; Sep. 1945.
 Horstman, C. C. Aug. 1941; July 1944.
 Mossberg, D. J. July 1950.
 Muller, H. N. Feb. 1942; Mar. 1945.
 Murphy, L. J. Sep. 1949.
 Neelson, M. A. July 1948.
 Newton, J. S. Mar. 1945; July 1948.
 Norvell, W. C. Sep. 1949.
 Oman, C. May 1948.
 Oplinger, K. A. May 1948.
 Opshak, A. M. May 1942.
 Osborn, H. B. Jr. Feb. 1942.
 Parker, W. S. Mar. 1945.
 Parsons, J. S. May 1941; Nov. 1941; Nov. 1944; May 1949.
 Partlow, J. C. July 1948.
 Peck, C. E. Nov. 1948.
 Penow, W. A. July 1947.
 Pflug, C. E. Nov. 1943.
 Phillips, A. K. May 1945.
 Pierson, F. R. Nov. 1944; May 1945.
 Ponkrow, J. E. Mar. 1944.
 Ponomarev, A. I. Mar. 1947.
 Zahour, R. L. Nov. 1950.
 Purnum, H. V. May 1941.
 Purr, T. J. July 1946; Mar. 1947; Sep. 1947; Mar. 1948.
 Rawlins, H. L. Feb. 1943; Sep. 1944.
 Redding, A. H. H. July 1947.
 Rentscher, H. C. Feb. 1942.
 Rieter, C. B. Mar. 1945.
 Robert, C. A. Nov. 1942.
 Roberson, R. B. Sep. 1947.
 Russell, R. Jr. May 1946.
 Satterlee, W. W. Sep. 1948.
 Schmidt, W. Nov. 1948.
 Schmidt, F. L. Mar. 1950.
 Schneider, F. L. Sep. 1948.
 Schumann, E. L. Nov. 1945; Mar. 1947.
 Schweindler, A. F. Mar. 1949.
 Seitz, F. Mar. 1946.
 Semar, H. W. July 1946.
 Sheer, R. S. Nov. 1949.
 Shopp, W. E. July 1946; May 1947.
 Sireg, S. Aug. 1942.
 Slack, C. July 1945.
 Small, W. Feb. 1943.
 Smith, B. K. K. May 1949.
 Smith, C. I. R. Aug. 1943; Nov. 1941.
 Smith, E. R. May 1941.
 Smith, N. A. Mar. 1949.
 Smyth, J. L. Aug. 1942; Mar. 1948; Jan. 1950; p. 61.
 Somers, H. E. Feb. 1942.
 Sonnemann, W. K. Feb. 1942.
 Spahr, J. C. July 1948.
 Spicher, H. W. July 1949.
 Steadman, C. R. July 1950.
 Stein, J. M. Sep. 1949.
 Straube, W. B. Nov. 1942.
 Sumner, C. L. Nov. 1947.
 Sutton, C. F. July 1948.
 Thomas, H. A. July 1946.
 Thompson, E. A. Sep. 1949.
 Tipson, E. W. Nov. 1944.
 Tirt, C. J. May 1950.
 Traver, H. A. July 1944.
 Uliman, L. J. Nov. 1949.
 Valentine, C. E. Mar. 1948; Nov. 1948.
 Van Sickle, R. C. Aug. 1942.
 Wagner, C. F. Aug. 1941.
 Wallace, J. M. Sep. 1944.
 Warren, C. E. Feb. 1943.
 Waldendorf, F. L. Nov. 1941.
 Weaver, E. July 1950.
 Wentz, E. C. Feb. 1942.
 Wickham, W. R. May 1943; May 1945.
 Williams, T. W. July 1946.
 Wilke, R. L. Feb. 1943.
 Wolf, R. F. May 1944.
 Wood, L. M. May 1947.
 Woods, C. M. May 1947.
 Wright, R. Aug. 1941; May 1942.
 Zavala, C. T. July 1945.

HILL

