## INDEX.

VOL. VIII. The Wireless Engineer & Experimental Wireless. 1931.

### I. GENERAL INDEX.

| ABBREVIATIONS AND REFERENCES (see separate Index), 28, 88, 143, 202, 261, 315, 373, 432, 490, 519, 604 |
| Adjustments, Coarse and Fine (Patents) | 400 |
| Aerial Coupling Circuits (Patent) | 663 |
| Aerial Earthing Switches (Patents) | 231 |
| Aerials, (Patents) | 57, 229, 232, 342, 402, 520, 633, 634, 635, 665 |
| Aircraft Navigation (Patents) | 173 |
| Aircraft, Radio on (Illustrated) | 293 |
| Alignment Representation of Valve Data, W. A. Barclay | 75 |
| Alternative Equivalent Circuit for the Valve (Correspondence) | 200 |
| Amplification of Transients, Distortionless, C. W. Oatley | 344, 397 |
| Amplifiers, Interaction in, L. Bainbridge-Bell | 18 |
| Amplifiers, (Patents) | 57, 231, 345, 459, 460, 576, 578 |
| Amplifiers, R.C. Coupled, Variation of Magnification with Pitch, W. A. Barclay | 362 |
| Amplifying Circuits (Patents) | 116, 289, 305 |
| Amplitude of Driven Loud Speaker Cones, M. J. O. Smith (Correspondence) | 372, 373 |
| Analysis of Distortion in Resistance Amplification, E. B. Moullin | 118 |
| Anode Resistance, A Saturated Diode, J. F. Herd | 192 |
| Anticlipping Control (Patents) | 229 |
| Apparent Demodulation of a Weak Station by a Stronger One, F. M. Colebrook (Correspondence) | 404 |
| Approximate Formulae for the Inductance of Solenoids and Astatic Coils, W. G. Hayman | 538 |
| Australian Short-Wave Transmitter (Illustration) | 422 |
| Automatic Grid-bias (Patents) | 303 |
| Automatic Volume Control (Patents) | 290 |
| Auxiliary Tuning Indicator (Patents) | 115, 171 |

### Band Couplings (Patents) |

| Band ” Couplings (Patents) | 58 |
| Band-Pass Filter in Radio Receivers (Editorial) | 233 (Correction) |
| Beam Aerials (Patents) | 342 |
| Beam Arrays and Transmission Lines (IEEE Paper), T. Walmsley | 25 |
| Beam Signalling (Patents) | 230 |

### BOOKS RECEIVED: |

| Books Received: | 20, 139, 201, 260, 369, 421, 484, 542, 584, 658 |

### BOOK REVIEWS: |

| Elementary Principles of W/T and T. R. D. Bangay | 17 |
| Alternate Current Bridge Methods, B. Hague | 17 |
| Testing Radio Sets, J. H. Reyner | 87 |
| Funk-Empfangs-Technik, M. von Ardenne | 87 |
| Rundfunk-Schaltungstechnik, M. von Ardenne | 134 |
| Abacs Dealing with Complex Numbers, L. Abeles | 134 |
| Electrical Condensors, Tissues, R. Fletcher & Sons, Ltd. | 134 |
| The Theory and Practice of Radio-Frequency Measurements, E. B. Moullin | 311 |
| Cours élémentaire de Télégraphie et Téléphonie sans Fil, F. Bedeau | 311 |
| N.P.L. Collected Researches, Vol. XXI. | 372 |
| Radiotelefonia-Radiotelegrafia ad onde Guidate | 421 |
| Quartz Resonators and Oscillators, P. Vigoureux | 602 |
| H.F. Alternating Currents, K. McIlwain and J. G. Brainerd | 603 |
| Braun Tube, Further Advances in the Technique of, M. von Ardenne | 127 |
| Bridge, A. C., Method of Testing Radio Valves, C. S. Bull | 70 |
| British Wireless Exhibition (Editorial) | 521 |
| Broadcasting (Patents) | 174, 289, 459, 518, 520 |
| "Broadcasting House " (Illustration) | 3 |

### Calibrating Ultra-Short Wave Receivers Employing Super-regeneration, C. Whitehead | 370 |
| Capacitive Potential Divider for H.F. Measurements, Dr. K. Schlesinger | 532 |
| Capacities, Small, Measurement of, V. V. Sathe and T. S. Sangachari | 543 |
| Capacity Test Set, A Simple, W. H. F. Griffiths (Correspondence) | 21 |
| Carrier Waves and Side Bands (Correspondence) | 140 |
| Carrier-Wave Signalling (Patents) | 288 |
| Cathode Ray Tube, Further Advances in the Technique, M. von Ardenne | 127 |
| Cathodes, High Emission (Patents) | 172 |
| Change of Title "The Wireless Engineer" | 408 |
| Circuits Tuned to Fulfil Predetermined Conditions, A. L. M. Sowerby (Correspondence) | 23 |
| Circuits, Selective Input (Patents) | 199 |
| Coil Resistance Shunts, Graphical Construction, W. A. Barclay | 482 |
| "Cold" Amplifiers (Patents) | 576 |
| Combined Television and Telephony (Patents) | 50 |
| Condensers, Variable, Air, The Losses in, H. F. Griffiths | 124 |
| Constant-Reaction Circuits (Patents) | 289 |
Direct Reading

CORRESPONDENCE

Controlling Tone or Quality (Patents) ... 343, 346
Correction of a Wireless D.F. for Deviations due to Metalwork (I.E.E. Paper), C. E. Horton ... 195

CORRESPONDENCE, 20, 149, 199, 257, 312, 372, 427, 488, 538, 599

Demodulation, Apparent, of a Weak Station by a Stronger one, F. M. Colebrook ... 490
(Demodulation, Mutual and Allied Problems (Editorial) 405 (Correspondence) ... 600
Design of High-Frequency Transformers, M. Reel ... 349
Design of Power Rectifier Circuits, D. McDonald ... 522
Design of Tuned Circuits to Fulfil Predetermined Conditions, A. L. M. Sowerby ... 23
(Correspondence) ... 199
Direct Reading Modulation Meter, A. H. Cooper, F. G. Smith ... 647
Direct-finder, Corrections for Deviations due to Metalwork (I.E.E. Paper), C. E. Horton ... 195
Direction-finding Systems (Patents), 58, 174, 343, 340, 403, 462, 653
Directional Aerials (Patents) ... 58, 517, 665
Directional Broadcasting (Patents) ... 56
Distant Control (Patents) ... 460
Distortion, Frequency, Effect of Output Load, H. A. Thomas ... 11
Distortion in Resistance Amplification, An Analysis, E. B. Moulin ... 118
Distortion in Valve Characteristics, G. S. Lucas ... 595
(Correspondence) ... 660
Distortionless Amplification of Electrical Transients, C. W. Oakley ... 244, 307
Disturbance, Local, Cutting Out (Patents) ... 462
Double Beat Method of Frequency Adjustment, F. M. Colebrook ... 639
Dry Rectifiers (Patents) ... 58
Duplex Signalling Systems (Patents) ... 460, 462
Dynatron Oscillator (for Very High Frequencies), F. M. Colebrook ... 581
(Correspondence) ... 661

Effect of Output Load upon Frequency Distortion in Resistance Amplifiers, H. A. Thomas ... 11
Electrostatic Speakers (Patents) ... 519, 520
Eliminators for Mains Supply (Patents) ... 174
"Empress of Britain" Telephone Equipment (Illustration) ... 361

ERRATUM:
"Parmeko" Public Address Amplifier ... 20

EXHIBITIONS:
Physical and Optical Societies 17, 117, 135
British Wireless (Editorial) ... 321
Olympia 1931 (Impressions) ... 585
Experiments with a Quartz Crystal Receiver, A. Palmgren ... 250

Fading, Prevention of (Patents), 115, 229, 289, 343, 345, 401, 518
Feeders, High Frequency, H. O. Roosenstein 294

Field-strength Measurements, Notes on, A. L. Green ... 61
Filaments, High-emission (Patents) ... 400
Formulae for Inductance of Solenoids, etc., W. G. Hayman ... 422
Frequency Adjustment, Double Beat Method, F. M. Colebrook ... 639
Frequency Measurement and Control, (I.E.E. Paper), Lt.-Col. A. S. Angwin ... 659
Frequency Measurements of High Accuracy, J. J. Vormer and C. van Geel ... 298
Frequency-modulated Systems (Patents) ... 491
Further Advances in the Technique of the Braun Tube, M. von Ardenne ... 127

Ganged Condensers (Patents) ... 113
Glow-discharge Tubes for Reception (Patents) ... 115
Gramophone Pick-ups &c. (Patents), 113, 344, 403, 517, 518, 634, 663
Grid-Emission, Preventing (Patents) ... 578
Grid-leak Detection (Patents) ... 461
Grillless Triodes (Editorial) ... 1

Heterodyne Receivers (Patents) ... 493, 519
High Frequency Feeders, H. O. Roosenstein ... 294
High-Frequency Generators (Patents) ... 56
High-Frequency Resistance of Coils, A. L. Green ... 183
High-Frequency Signalling (Patents) ... 633
How Many Ionised Layers? (Editorial) ... 463
"Hum," Preventing (Patents) ... 290, 460, 636

INSTITUTION OF ELECTRICAL ENGINEERS
(Papers Read):
Beam Arrays and Transmission Lines, T. Walmsley ... 25
Resistance and Reactance, New Method of Measuring, F. M. Colebrooke and R. M. Wilmot ... 83
Variable Capacitance Cylindrical Condenser and a Wavemeter for Short Waves, E. B. Moulin ... 84
Some Measurements of a Loud Speaker in vacuo, P. K. Turner ... 129
Practical Correction of D.F. for Deviations due to Metalwork of a Ship, C. E. Horton ... 195
Propagation of Waves, R. Naismith ... 253
Technical Problems in Connection with Television (Discussion) ... 310
Frequency Measurement and Control, Lt.-Col. A. S. Angwin ... 659
Interaction in Amplifiers, L. Bainbridge-Bell ... 18
Ionised Layers, How Many? (Editorial) ... 463

Light-Sensitive Amplifier Circuits (Patents) ... 115
Light-Sensitive Cells (Patents) ... 171
Light-Sensitive Devices (Patents) ... 57
Losses in Variable Air Condensers, W. H. F. Grinths ... 124
Loud Speaker Cones, Amplitude of, M. J. O. Strutt ... 238
(Correspondence) ... 312, 313
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loud Speaker in vacuo, Some Measurements</td>
<td>129</td>
</tr>
<tr>
<td>M. P. J. Short</td>
<td>405</td>
</tr>
<tr>
<td>Piezo-Electric Crystals</td>
<td>142</td>
</tr>
<tr>
<td>Piezo-Electric Circuits</td>
<td></td>
</tr>
<tr>
<td>Physical and Optical Measurements</td>
<td></td>
</tr>
<tr>
<td>Percentage Harmonic Distortion</td>
<td>83</td>
</tr>
<tr>
<td>Physical Reality of Side-bands, F. M. Colebrook</td>
<td></td>
</tr>
<tr>
<td>Potential Dividers (Patents)</td>
<td>532</td>
</tr>
<tr>
<td>Potential Dividers (Patents)</td>
<td></td>
</tr>
<tr>
<td>Propagation of Waves (I. E. E. Paper), R. Naismith</td>
<td>233</td>
</tr>
<tr>
<td>Push-Pull Amplifiers (Patents)</td>
<td>345</td>
</tr>
<tr>
<td>Quality Detectors, W. Greenwood and S. J. Preston</td>
<td>648</td>
</tr>
<tr>
<td>Quartz Crystal Receiver Experiments with, A. Palmgren</td>
<td>250</td>
</tr>
<tr>
<td>Radio City America's New Broadcasting Centre (Illustration)</td>
<td>191</td>
</tr>
<tr>
<td>Radio on Modern Aircraft (Illustration)</td>
<td>293</td>
</tr>
<tr>
<td>Reactance Control (Patents)</td>
<td>570</td>
</tr>
<tr>
<td>Rebroadcasting Distance Transmissions (Editorial)</td>
<td>59</td>
</tr>
<tr>
<td>Receivers (Patents)</td>
<td>57, 346, 403, 460, 664</td>
</tr>
<tr>
<td>Receivers, Wiring-up (Patents)</td>
<td>114</td>
</tr>
<tr>
<td>Receiving Circuits (Patents)</td>
<td>462</td>
</tr>
<tr>
<td>Rectifier Circuits, Design of, D. McDonald</td>
<td>522</td>
</tr>
<tr>
<td>Rectifiers, (Patents)</td>
<td>114</td>
</tr>
<tr>
<td>Rectifying Sets (Patents)</td>
<td>232</td>
</tr>
<tr>
<td>Rectifiers, (Patents)</td>
<td>114</td>
</tr>
<tr>
<td>Reflecting System, (Patents)</td>
<td>634, 638</td>
</tr>
<tr>
<td>Remote Control Systems (Patents)</td>
<td>400, 634</td>
</tr>
<tr>
<td>Resistance, Anode, A Saturated Diode, J. F. Herd</td>
<td>192</td>
</tr>
<tr>
<td>Resistance Capacity Coupled Transformer, F. Auguste and W. F. Cope</td>
<td>177</td>
</tr>
<tr>
<td>Resistance, H. F. of Coax Measurement, A. L. Green</td>
<td>183</td>
</tr>
<tr>
<td>Resistance and Capacities of Valves, Variation of, L. Hartshorn</td>
<td>413</td>
</tr>
<tr>
<td>Resonance Meters (Patents)</td>
<td>488, 600</td>
</tr>
<tr>
<td>Rule for the Impedance of Parallel Circuits (Correspondence)</td>
<td></td>
</tr>
<tr>
<td>Safety Devices for Power Generators (Patents)</td>
<td>58</td>
</tr>
<tr>
<td>Saturated Diode as an Anode Resistance, J. F. Herd</td>
<td>192</td>
</tr>
<tr>
<td>Scattered Radiation from Short-Wave Beams (Editorial)</td>
<td>579</td>
</tr>
<tr>
<td>Screened Grid Detectors (Patents)</td>
<td>342</td>
</tr>
<tr>
<td>Secret Duplex Systems (Patents)</td>
<td>171</td>
</tr>
<tr>
<td>Selective Reception (Patents)</td>
<td>576, 577, 663</td>
</tr>
<tr>
<td>Selectivity and Response, E. E. Wright</td>
<td>133</td>
</tr>
<tr>
<td>Selectivity, The Definition of (Correspondence)</td>
<td></td>
</tr>
<tr>
<td>Short-Wave Beams, Scattered Radiation from (Editorial)</td>
<td></td>
</tr>
<tr>
<td>Short-Wave Generators (Patents)</td>
<td>199</td>
</tr>
<tr>
<td>Short-Wave Generators (Patents)</td>
<td></td>
</tr>
<tr>
<td>Short-Wave Oscillators (Patents)</td>
<td>115</td>
</tr>
<tr>
<td>Short-Wave Receiver (Patents)</td>
<td>320</td>
</tr>
<tr>
<td>Short-Wave Signalling (Patents)</td>
<td>113</td>
</tr>
<tr>
<td>Short-Wave Single Sideband Telephony (Illustration)</td>
<td>348</td>
</tr>
<tr>
<td>Sidebands and Modulation, N. F. S. Hecht</td>
<td>471</td>
</tr>
<tr>
<td>Sidebands, The Physical Reality, F. M. Colebrook</td>
<td></td>
</tr>
<tr>
<td>(Correspondence)</td>
<td>257, 314, 427, 540, 660</td>
</tr>
</tbody>
</table>
II. INDEX TO AUTHORS.

AGWN, Lt.-Col. A. S. (I.E.E. Paper) ..... 659
AGWTE, F. and COPE, W. F. (Patents) ..... 14, 15
BAINBRIDGE-BELI., L. (Correspondence) ..... 18
BARCLAY, W. A. (I.E.E. Paper) ..... 75, 362, 482
BOLL, C. S. (Editorial) ..... 70
CLARKE, H. M. (I.E.E. Paper) ..... 304
COLEBROOK, F. M. (I.E.E. Paper) ..... 356
COLEBROOK, F. M. and WILMOTTE, R. M. (I.E.E. Paper) ..... 83
COPE, W. F. and AUGHTIE, F. (I.E.E. Paper) ..... 177
GREEN, A. L. (I.E.E. Paper) ..... 61, 183
HARTSHORN, L. (I.E.E. Paper) ..... 413
HAYMAN, W. G. (I.E.E. Paper) ..... 422
HECHT, N. F. S. (I.E.E. Paper) ..... 471
HERD, J. F. (I.E.E. Paper) ..... 192
HORTON, C. E. (I.E.E. Paper) ..... 195
LUCAS, G. S. C. (I.E.E. Paper) ..... 595
MCDONALD, D. (I.E.E. Paper) ..... 522
MOULLIN, E. B. (I.E.E. Paper) ..... 84
MOULLIN, E. B. (I.E.E. Paper) ..... 118
NATIONAL, G. C. (I.E.E. Paper) ..... 370
NAVING, R. (I.E.E. Paper) ..... 233
OAKLEY, C. W. (Correspondence) ..... 24, 307
Palmgren, A. (I.E.E. Paper) ..... 250
RANGACHARI, T. S. and V. S. SATHI (I.E.E. Paper) ..... 543
REED, M. (I.E.E. Paper) ..... 349
ROOSENSTEIN, H. O. (I.E.E. Paper) ..... 294
SATHI, V. V. and T. S. RANGACHARI (I.E.E. Paper) ..... 543
SCHLESINGER, K. (I.E.E. Paper) ..... 532
SOWERBY, A. L. M. S. (I.E.E. Paper) ..... 23
STREET, M. J. O. (I.E.E. Paper) ..... 23
THOMAS, H. A. (I.E.E. Paper) ..... 11
THOMAS, T. S. E. (I.E.E. Paper) ..... 485
TURNER, P. K. (I.E.E. Paper) ..... 129
VON ARDENNE, M. (I.E.E. Paper) ..... 127
VORMER, J. J. and VAN GEEL, C. (I.E.E. Paper) ..... 298
WALMSLEY, T. (I.E.E. Paper) ..... 25
WHITEHEAD, C. (I.E.E. Paper) ..... 370
WILMOTTE, R. M. and COLEBROOK, F. M. (I.E.E. Paper) ..... 83
WRIGHT, E. E. (I.E.E. Paper) ..... 133
III. ABSTRACTS AND REFERENCES.

PROPAGATION OF WAVES.


Effect of Transmitting Height on Received Signals from Aircraft: Fading Propagation, etc.—Wireless Division, German Aircraft Research Establishment, p. 550.


Some Notes on Frequency Shifts in Diffractive Reflection and Scattering.—E. Bardeen, p. 435.


Field-Strength Measurements of Radio-Frequency Waves.—R. S. Albrecht, p. 551.


Energy of Fading Particle and Its Action on Radio Transmission.—F. Helferem, p. 286.


Field-Strength Measurements on Daventry 5NX. —R. Nalsmith: Revyer, pp. 376 and 491.


Diffusive Reflection and Scattering.—Boyle and Lehman, p. 158.


Earth.—See Ground, Soil.


Wireless Reflections and Echoes.—J. Laronne, p. 39.


Uber eine Erweiterung der Gleichungen des elektromagnetischen Feldes (On an Extension of the Electromagnetic Field Equations).—B. Lagunoff, p. 32.


Uber eine Erweiterung der Gleichungen des elektromagnetischen Feldes (On an Extension of the Electromagnetic Field Equations).—B. Lagunoff, p. 32.


Recent Field-Strength Measurements on Broadcast and Longer Waves.—M. von Ardenne, p. 550.

Field-Strength Measurements of Radio-Frequency Waves and their Practical Application: Contour Charts of Swedish Stations.—Lemoine, p. 165.

Field-Strength Measurements and their Practical Application: Contour Charts of Swedish Stations.—Lemoine, p. 165.

Field-Strength Measurements and their Practical Application: Contour Charts of Swedish Stations.—Lemoine, p. 165.

Field-Strength Measurements and their Practical Application: Contour Charts of Swedish Stations.—Lemoine, p. 165.

Field-Strength Measurements and their Practical Application: Contour Charts of Swedish Stations.—Lemoine, p. 165.

Field-Strength Measurements and their Practical Application: Contour Charts of Swedish Stations.—Lemoine, p. 165.
Investigation of the Reflection and Refraction of Electromagnetic Waves at Metallic Surfaces and Calculation of the Energy Absorbed in the Metal. -P. Walter, p. 32.

Kennelly-Heaviside Height Observations for 4,015 and 8,650 kc. -F. R. Gilliland, pp. 88 and 204.
Discussion on Kennelly-Heaviside Height Observations for 4,015 and 8,650 kc. (Kennelly-Heaviside Height Observations by Gilliland and F. K. Vredeldt, p. 549).
Height of Kennelly-Heaviside Layer. —Bureau of Standards, p. 492.

Heaviside Layer Observations in the Antarctic. —Hanlon, p. 549.
A Simple Small-power Equipment for the Study of Heaviside Layer Height by the Pulse Echo Method. —I. Ranziz, p. 549.
A Method of Continuous Observation of the Equivalent Height of the Kennelly-Heaviside Layer. —E. C. White, p. 600.

Heaviside Layer. —See also Ionised, Higher Layers, Atmosphere, Upper Atmosphere and Stratosphere.


High Frequency Waves. —See also Short Waves.

Papers dealing with the Propagation of Waves read before the April, 1931, Joint Annual Convention of the Three Electrical Institutes in Japan, Nambu, Yokoyama and Tanuma; Tanuma and ISO, p. 549.
Contemporary Theories of Light. —W. F. G. Swann, p. 32.
The Velocity of Light. —W. F. G. Swann, p. 317.
The Dispersion of Light in Metals. —J. B. Nathanson, p. 32.
Electro-optical Modifications of Light Waves. —L. H. Staufer, p. 32.
Radiational Noise of Long-Distance Radio Communications. —T. Nakagami and C. Anuraga, p. 455.

Long-Wave Radio Receiving (Field Strength) Measurements at Standards in 1931. —L. Austin, p. 491.
Short-Distance Observations on Long-Wave Phenomena. —R. Naisin, pp. 375 and 491.

On the Variability of the Quiet-Day Diurnal Magnetic Variation. —F. Walter, p. 50.
A Note on the Relation of Meteor Showers and Radio Reception. —G. W. Pickard, p. 549.
Effect of the Moon on the Atmospheric Pressure in the Far East, p. 435.
Moon's Effect on Heaviside Layer. —Gilliland and Vredland, p. 549.
Multiple Images in Car Windows. —H. M. Reese, p. 455.
Multiple Reflection or Multiple Layers. —Gobbe and Zenneck, p. 434.

Beitrage zur Optik endlicher Wellenlängen (Contributions to the Theory of Optics of Finite Wave Trains). —D. Ebert, p. 149.
The Optics of Radio Transmission. —E. Merritt, p. 203.
Optics in Radio Transmission and Other Fresh Fields. —F. Twyman, p. 318.
Estimation of Ozone Density. —Fahy and Blouin. See Absorption.
An Early Note on Wave Propagation. —L. de Forest, p. 32.
Progress during the Past Year in the Study of the Propagation of Waves [Double-Layer Hypothesis: Slow Group Velocities and
The Multiple Refraction of Short Waves.


Mesungen im Strahlungsfelde einer zwischen zwei parallelen, leitenden Flächen errichteten Linienantenne (Measurements in the Field Radiated by a Linear Antenna excited in the Space Between Two Parallel, Conducting Surfaces) - L. Bergmann and W. Doerfel, p. 136.

The Absorption and Dissociative or Ionizing Effect of Mono- chromatic Light in an Atmosphere rotating on a Rotating Earth. - S. Chapman, p. 502.


Radiation of Multiples. - K. F. Herzel, pp. 592 and 593.

Notes on Radio Transmission - E. K. Herzel, pp. 592 and 593.


Het reciprociëstheorema van de electrolytische (The Reciprocity Theorem in Electricity). - T. A. Kandler, p. 553.

E. A. C. B. E. - Experimental Untersuchungen über Blechschirme (The Reciprocity Theorem of Wireless Telegraphy) - A. Sommerfeld, p. 573.

Reflection of Waves in an Inhomogeneous Absorbing Medium - P. S. Epstein, p. 31.

Zur Metallreflexion (On Metallic Reflection) - J. Zachradnick, p. 88.


Damping in Bodies Seismic Waves (Theoretical Investigation of the Seismic Waves in Rocks) - H. Jeffers, p. 517.


Papers on an's "Curves of Pursuit" Hypothesis of the Optics of Moving Bodies. - W. Lalun; Senaat, p. 606.


The Propagation of Short Radio Waves over the North Atlantic - C. R. Barnes, p. 634.


Field Strength Measurements of Short Wave Transmissions. - T. L. Eckersley, p. 491.


The Multiple Refraction and Reflection of Short Waves. - N. H. Edes, pp. 492 and 606.

Short Waves. - See also High Frequency, Meteoric Showers, Polish, Sinekeff (Skin Effect). - M. J. O. Strutt, p. 606.

On Skip Distance Effects on Super Frequencies (30-40 Mega Cycles per Second). - A. Hoyt Taylor, p. 606.


Application of Spinor Analysis to the Maxwell and Dirac Equations. - G. E. Uhlenbeck, p. 577.

A Correlation of Long Wave Radio Field Intensity with the Passage of Storms. - J. W. Winnor Shell, p. 607.

Optical and Equivalent Paths in a Stratified Medium, Treated from a Wave Standpoint. - D. K. Harder, p. 432.

Recent Investigations on the Structure of the Stratosphere. - C. C. Cowen, p. 607.

Striated Discharge by Huxley, p. 510.


Sunspots. - See also under "Atmospheres."

À propos des Phénomènes électromagnétiques à la Surface de la Terre. - G. E. Uhlenbeck, p. 552.


Sur la Lumière transmise dans le Cas de Reflexion dite totale (On the Light Transmitted in the so-called "Total Reflection."). - A. de Granville, p. 556.


Wave Propagation at Ultrasonic Frequencies less than that of Light (Experiments with the Electrodissipative Discharge at Ultra-high Frequencies). - M. Hess, G. Ferr, p. 146.


The Present Position in the Development of the Ultra-Waves, with regard to their Practical Possibilities for Broadcasting. - Roebuck, p. 397.

Communication radiotelefónie sur Ondes courtes (Radio- telephonic Communication on Ultra-Waves (France to overseas)). - A. Bauvain, p. 593.


Range Results on Ultra-Short Wave Méter Waves. - Lamb, Hull, p. 492.


Aircraft Tests of Ultra-Short Wave Beam. - Fasbender, p. 32.

Résultats préliminaires de mesures métriques et millimétriques (The Experimental Investigation of Ultra-Short Waves) - P. V. Shumak, p. 316.


Some Phenomena of the Upper Atmosphere. - S. Chapman, p. 607.


Sur l'existence hypothétique dans le vide de résonateurs de fréquence hérétique (On the Supposed Existence in Water
The Audibility

The Observations

Note on A Pfeiftöne aus der Erde (Whistling Tones from the Earth) — H. Hasse, p. 416.


ATMOSPHERICS AND ATMOSPHERIC ELECTRICITY.

A Curious phenomenon shown by Highly Charged Aerosols. — W. Cawood and H. S. Patterson, p. 610.

Specular Record of Atmospherics on the Atlantic. — G. H. Huber, p. 508.


Note on a Phenomenon connected with the Aurora. — A. C. Burton, p. 508.

A Low Aurora and its Effect on a Radio Receiver. — p. 147.


Was tief treten die Pollichter in die Erdatmosphäre ein? (How Deep does the Aurora Penetrate into the Atmosphere?). — F. Ritter, p. 265.


The Low Altitude Aurora of November 16th, 1929. — A. Collin, p. 294.


Aurora Display and Magnetic Disturbance. — I. F. Rowland, p. 147.

Aurora Bore. Reproduced in Laboratory. — J. Kaplan, p. 494.

The Suddenness and Lowermost Altitude of the Aurora Polaris. — S. Chapman, p. 264.

The Suddenness and Lowermost Altitude of the Aurora Polaris. — S. Chapman, p. 264.

The Diurnal Variation of the Aurora Polaris. — E. O. Huburt, p. 382.


Absolutionsmessungen in Lake Constance. — J. Kaplan, p. 295.

Absorptionsmessungen der Höhenstrahlung, festgestellt durch Absorptionssonden im Bodensee (The Penetrating Component of Cosmic Radiation between 2,000 and 9,000 m above Sea-Level). — W. Kolhorster, p. 294.


The Orthogonal Ratios and Rayon cosmiques (Polar Aurora and the Cosmos). — A. Dauveiller, p. 809.


Durch die Energie der einzelnen Teilchen der kosmischen Ultralichtstrahlung (On the Energy of the Particles of Cosmic Ultrastrahlung). — W. M. Schuler, p. 147.


Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.

Die Ultralichtstrahlung (On Cosmic Ultrastrahlung). — E. Schuler, p. 146.
Dielectric Phenomena at High Voltages—Goodlet, Edwards and Ferry, pp. 513 and 628.


Directional Recorder for Atmosphere—Bureau, p. 219.


Earth for Lightning Conductors—V. Schiffer, p. 410.

Su inversioni del Cielo elettrico e dell'Atmosfera (The Inversion of the Sky and the Atmosphere)—A. E. Nodder, p. 51.

Atmospheric Currents considered as Impulsive Oscillations on Quasi-stationary and Non-stationary Circuits—M. Müller, p. 34.


Gegenfelduntersuchungen und Beweglichkeitsmessungen kleiner Ionen (Investigations and Movement Measurements of Small Ions)—E. Bradbury, p. 436.


Directional Recorder for Atmosphere—Bureau, p. 219.


Earth for Lightning Conductors—V. Schiffer, p. 410.

Su inversioni del Cielo elettrico e dell'Atmosfera (The Inversion of the Sky and the Atmosphere)—A. E. Nodder, p. 51.

Atmospheric Currents considered as Impulsive Oscillations on Quasi-stationary and Non-stationary Circuits—M. Müller, p. 34.


Gegenfelduntersuchungen und Beweglichkeitsmessungen kleiner Ionen (Investigations and Movement Measurements of Small Ions)—E. Bradbury, p. 436.


Directional Recorder for Atmosphere—Bureau, p. 219.


Earth for Lightning Conductors—V. Schiffer, p. 410.

Su inversioni del Cielo elettrico e dell'Atmosfera (The Inversion of the Sky and the Atmosphere)—A. E. Nodder, p. 51.

Atmospheric Currents considered as Impulsive Oscillations on Quasi-stationary and Non-stationary Circuits—M. Müller, p. 34.


Gegenfelduntersuchungen und Beweglichkeitsmessungen kleiner Ionen (Investigations and Movement Measurements of Small Ions)—E. Bradbury, p. 436.


Directional Recorder for Atmosphere—Bureau, p. 219.


Earth for Lightning Conductors—V. Schiffer, p. 410.

Su inversioni del Cielo elettrico e dell'Atmosfera (The Inversion of the Sky and the Atmosphere)—A. E. Nodder, p. 51.

Atmospheric Currents considered as Impulsive Oscillations on Quasi-stationary and Non-stationary Circuits—M. Müller, p. 34.

Practical Experiments

Untersuchungen über funkenerregte Schwingungen sehr hoher Frequenz (Experiments Developments in Ultra
Theory

Raumladungsschwingungen


Neon Tube R. F. Transmitter Circuit—Hannover, p. 440. The Triode Oscillation Generator and Amplifier; Limitations on Sinoidal Performance.—Turner and Meacham, p. 34.


Duple Phone Quality of the Portable "Five Meter" Transmitter. Using Pentode Modulators.—K. A. Hall, p. 612.

Sytemes polyphasés et Auto-excitation (Self-Exciting Polyphase Valve Systems).—A. A. Arenberg, p. 407.


Demonstration of Side-bands by the use of a Quartz-controlled R.F. Amplifier.—H. Harnack, p. 323.


The Single Side-band System Applied to Short Wavelengths.—A. H. Reeves, p. 554.


Radioélectrophonique a Ondes courtes a Bande latérale unique (Single Side-band Short Wave Radiotelephone).—P. Letheule, p. 613.

Single Side-band Telegraphy on Short Waves.—Le Matériel Téléphonique, Paris : A. H. Reeves, p. 381.

Krautladungsschwingungen in Dioden (Space-Charge Oscillations in Diodes).—W. Gerber, p. 38.

Economical Full-Load Testing of Transmitters.—Telefunken, p. 312.

Theory of the Internal Action of Thermionic Systems at Moderately High Frequencies [with a Reference to the B.-K. Oscillations].—Benham, p. 212.

Trehafazny elektronnyy generator (The Three-Phase Thermionic Generator).—A. Reven, p. 439.

Un Circuit a due Valvole contiente Trei di Ondis discontinui (A Two-Valve Circuit Emitting a Succession of Wave Trains).—M. La Rosa and N. Seta, p. 267.


Two-Metre Wave Transmitter with Special Reference to its Antenna Feeder.—S. Lita, p. 612.

Developments in Ultra-high Frequency Oscillators.—J. J. Lamb, p. 497.

Untersuchungen über funkenerregte Schwingungen sehr hoher Frequenz.—Experiments on Spark-Generated Oscillations of Ultra-high Frequency.—K. Haup, p. 612.

A Particular Case of (Ultra-) High Frequency Electron Oscillations.—K. Haup, p. 612.

The Production of Ultra-Short Unclamped Electromagnetic Waves.—M. C. Whitehead, p. 94.

Practical Experiments in Ultra-Short Wave Communication. —C. C. Whitehead, p. 94.

Ultra-Short Wave Communication [Screening the Glass Bulb, etc.]: Correspondence.—L. C. S. Meegan : C. C. Whitehead, p. 392.


Simplification of the Pierrot-ULTRA-Wave Generating Circuit.—Guyot, p. 554.

Four Electron Valve in Brake-Field Circuit, for Increased Power in Ultra-Short Wave Generation.—p. 150.

Colloidal Spark Gap for Ultra-Short Wave Generation.—Hildebran, p. 150.


Sender für ultrakurze Wellen (Ultra-Short Wave Generator).—W. Kropfel, p. 94.

Push-Pull Ultra-Short Wave Generator with Symmetrical Double-Filamented Valve.—Hoffmann, p. 150.

Push Pull Ultra-Short Wave Generator with Tuned Circuit Connecting the Filament Circuits.—Esen, p. 150.

Stabilisation of Ultra-Short Wave Generator by a Polyphase Oscillator.—Aumöwe, p. 488.


Lampovyi generator ultrakoroten (metrov).—O. O. Binhov, p. 39.

The Generation of (Ultra-) Short Waves.—W. W. Mackenthun, p. 94.

Hammer Directional Transmitter for Ultra-Short Waves.—Telefunken and Lodestar, p. 150.


Piec's Circuits for Ultra-Short Waves (Transmission and Reception).—p. 353.

Die Phasenverstellung in einem zusammengesetzten Röhrengenerator für ultrakurze Wellen (The Phase Relations in a Multi-Valve Generator for Ultra-Short Waves).—A. P. Siovich (Siovioi), p. 299.

Experimental Researches on Ultra-Short Waves.—A. Rostaghi, p. 287.

Experiments on Large Power Ultra-Short Waves (down to 7.6 meg.)—G. N. Bevan, p. 39.


Recent Developments in America.—A. Dinsdale, p. 268.

The " Okale " Electronic Ampli-Receiver" and Its Dependence on Filament Current.—M. Seale, p. 616.


Device for Elimination of Atmospheres and Interferences.—Hrini, p. 96.

Amplificateurs à bande de fréquences (Band-Pass Amplifier Stages).—J. L. Coilliat, p. 382.

The Band-Pass.—p. 154.

Band-Pass or Tone Corrector.—F. M. Colebrooke, p. 614.

The Empfangstation auf Damptee "Bremen" (The Receiving Station on Board the "Bremen")—J. E. Zepel, p. 96.

Developments in Broadcast Reception.—A. J. Gill and A. G. McDonald, p. 151.

Grundsätzliche zur Guteübertragung von Rundfunk-Empfängern (Fundamental Considerations in Judging the Figure of Merit of a Broadcasting Receiver).—A. Clausing, p. 151.
Control of Aerial Series Inductance and Condenser...—S. R. Winters: Jones and Yelles, p. 615.


Selectivity and Damping in a Regenerative Radio Receiver...—Hansch, p. 208.

Selectivity and Response...—Wright, p. 266.

Zusatzgerät zur Erhöhung der Stellmischkäräche und Verminderung von Störungen...—Davul and Yelles, p. 268.


A-Stage Network Circuit...—Hartshorn, p. 323.

Die Vorüberlegungen der Sektionskurven...—H. Harnisch, p. 323.


Short Wave Receiver Type R.C. 21...—For Commercial Stations, Beam of Non-Beam Type Aerial Systems...—J. G. Shaw, p. 96.


Carrier waves and Side-Bands...—Nab, p. 613.


Evaluating Static...—A. B. Callis, p. 266.

The Stenode...—J. Robinson, p. 219.

The "Stenode"...—J. Robinson, p. 287.

The Stenode-Radiostat: Discussion after Lecture and Demonstration...—p. 440.

The "Stenode"...—J. Robinson: Moulton, p. 420.

The Stenode Radiostat...—M. H. Eckert, p. 303.


Amplitude Modulation versus Frequency Modulation (and the Selectivity...—Fischer, p. 40.


Experiments with a Quartz Crystal Receiver (Stenode Radiostat Circuit)...—A. Füllen, p. 383.

Über die Möglichkeit...—S. H. Schröer, p. 86.


Der Superhet als Fernempfänger der Zukunft...—H. Dick, p. 415.

The Superhet as a Space Receiver of the Future...—S. Bühler, p. 615.

New-Superhet Radiodynes...—P. H. Hayes, p. 616.

Undesired Responses in Superheterodynes...—R. H. Langley, p. 616.


Ueber den Penelhöckerkopplung [Super-regenerative]...—H. Kohn, p. 287.


Combination of the Swings Effect of High Power Transmitters...—McMichael, J. T., McMichael, p. 404.


A Testing Equipment for Broadcast Receivers...—Hock, p. 933.


Type R.K. 20C Receiver...—particularly suitable for Duplex Telephone Services...—Marconi Company, p. 498.


Calibrating Ultra-Short Wave Receivers...—Leibau, p. 488.


Attachment for Ultra-Short Wave Reception...—p. 325 and 384.

Adaptor for Ultra-Short Waves...—p. 408.

Galvanometer for the Direct Reception of Ultra-Short Waves...—D. C. Gill, p. 293.

Reception of Ultra-Short Waves of the Order of 17 Centimetres...—Frid, p. 394.

Volume Control...—C. Whitehead, p. 154.

Adjustment of Reaction (Volume Control) by an Oscillating Valve...—R. E. Ehrman, p. 319.

Volume Control...—See also under "Acoustics."

Automatic and Semiautomatic Volume Controls for Aircraft...—British Regenerative Receiver...—H. Runge, p. 555.


The Wireless World...—p. 418.


AERIALS AND AERIAL SYSTEMS. Increasing the Effective Height of Trailing Aircraft Aerials...—E. S. Sander, D. Schoed, D. Chinn, and E. Zinke, p. 537.

Vergrosserung der effektiven Höhe von Flugzeughochgeräteantennen [Increasing the effective height of Trailing Aircraft Aerials]...—J. Esser, G. S. Schoed, R. Schoed, and O. Zinke, p. 441.


Space Wave Angle...—W. T. Cocking, p. 383.

KDKA's Aerial with Controlled Angle of Elevation...—Dinsdale, p. 388.

The Artificial Characteristic of Non-Directive Joint Radiators disposed over a Spherical Surface...—L. Fischer, p. 45.

Neuere Messungen an Kurzwellen-Richtantennen [New Measurements on Short Wave Beam Aerials]...—A. Gothe, p. 155.

Les Antennes dirigées dans le cadre de l'antenne de broadcast...—J. E. Hock, p. 455.

Beam Arrays and Transmission Lines...—W. Leith, pp. 155 and 211.

British P.O. Short Wave Aerial Arrays...—Lee, p. 41.

Engineering Aspects of the Broadcast Antenna...—H. E. Hallberg, p. 595.

New Broadcast Aerial System for Large Ground Wave and Small Space Wave Reception...—L. O. Green, p. 817.

Arrays of Broadcast Antennas...—J. E. Hock, p. 595.

Theoretical and Practical Aspects of Directional Transmitting Systems...—E. J. Sterba, p. 566.


Diversity Receiving System of R.C.A. Communications, Inc...—See under "Reception.


Die wirkliche Höhe [höhere Richtantennen] [The Effective Height of Short Linear Aerials]...—M. Dickmann, p. 385.


The Energy Magnification of Broadside Aerial Arrays used for Reception...—E. Green, p. 817.
Lappel de quelques Erreurs aidentant les Indications des Moutages de T.S.P. (A Note Recalling Certain Errors Affecting the Indications on Certain Wireless Charts).-H. de Bellescisse, p. 556.

Transmission on Two Aerials at Right Angles to Avoid Fading.-H. M. B. Piercy, p. 612.

Fading Elimination by Constantly Varying the Angle of Reception.-J. A. H. Tomlinson, p. 213.


Two-Wave Transmission with Special Reference to its Antenna Feeder. -E. E. Duda, p. 612.

Ein neues Method zur Spannungsmessung an Parallelkreiszweigen (A New Method of Potential Measurement in Parallel Wire (Lecher Wire; Feeder) Systems).-L. Rhode and F. Behrman, p. 599.

High Frequency Feeders: Some Investigations into Design and Measurement.-H. O. Roosenstein, p. 441.


Measurements in the Field Radiated by a Linear Antenna Excited in the Mid-Part Between Two Parallel, Conducting Surfaces.-Bernmann and Dowerl, p. 316.

Connections to Field-Strength Measurements with Loop Antennae.-J. B. B. Huxley, p. 614.

Calculation of Electric and Magnetic Field Strengths of any Oscillating Straight Conductors.-M. Bechmann, p. 599.

Eine Untersuchung über die Transmission von Ultra-Short-Waves oder Ultravioletter Strahlung.-Lorentz, p. 212.


Note some Déformations du Diagramme d’un Cadre émetteur (Note on the Deformations of the Diagram of a Transmitting Frame Aerial).-C. Bourgoin, p. 399.


The Improved Coudeleur Antenna Radiation Formula.-W. H. Wise, p. 617.

Racetr antenne Horitz (The Design of Herb type Antenna).-G. A. Uer, p. 154.


The Effects of Shielding the Down-Lead to prevent Interference.-A. Schlechtner, p. 500.

On the Calculation of Masts with Stays.-B. S. Lovlin, p. 241.

The Effects of Metal Obstructions on the Radiation Field of an Aerial.-Soler, p. 299.

Untersuchungen an Strahlterauen in Nahen (Investigation of the Near Beam Aerials).-W. Pitier, p. 41.


Convergenz-Stellungskennlinien einer Kurvenlinien-Richtantenne mit gekreuztem Reflektor (The Horizontal Radiation Characteristics of a Short-Beam Wave Aerial System with Directly-Excited Reflexor).-K. Kruger and H. Foid, p. 399.


Table of the Radiation Field of a Dipole Aerial.-Peters, p. 30.


Über das Strahlungsfeld der Dipolantenne (The Radiation Field of a Dipole Antenna).-R. Liebmann, p. 617.


Note on the Electromagnetic Greek-Platan or Saw-Tooth Networks.-E. V. Vesey, p. 541.


Currents Required to Remove an Antenna "Sect.".-J. E. Cem, p. 155.


The New "Sound Filter Sphere Antenna."-J. Hopf, p. 212.


Aerial Systems for Ultra-Short- (3 Metre) Waves and Their Effect on the Formation of Interference Patterns at a Distance.-Lam, p. 500.

Short-Wave Radiation from Vertical Aerials.-W. Nakayama and K. Komata, p. 556.

Über die elektrischen Schwingungen in drusförmigen Leitern.-E. Hallon, p. 509.

VALVES AND THERMIOSICS.


The Alleged Production of Active Nitrogen from Tungsten by Artificial Nitergen.-I. Langmuir, p. 387.

Bemerkung zur Absorption von Sonde (Remark on Sonde Absorption Theory).-A. Gunilla, p. 43.

Method of Alignment Applied to Anti-Logarithmic Triode Characteristic.-W. A. Barclay, p. 213.

The Allignment Representation of Valve Data.-W. A. Barclay, p. 570.

Atmosphärische Stärkung sowie Rücksicht auf eine Ausschaltung der verkleinerungswirkungen der Elektrotonwärme (Aperiodic Amplification and Rectification with full Utilisation of the Amplification Factors of Amplifier Valves).-H. Rudolph, p. 41.


Beitrag zum Anheizvorgang der im Vakuum gebrannten Wolframe (Drahte (Contribution to the Burn-Out Process of Tungsten wires heated in vacuo).-L. Fries, p. 601.

The Characteristic Curve Fields of unradiated Amplifier Valves.-Feldkeller, p. 39.


The Abweichungen der Verstärkerelektroden von der Verstärkerelektronenteile (The Deviations of the Amplifier Valve Characteristics from the Log Law).-H. Knispel, p. 618.

Der Einfluss chemischer und chemisch-physikalischer Vorgänge an der Oberfläche hochschmelzender Metalle, etc. (The Influence of Chemical and Chemical-Physical Processes at the Surface of High Melting Point Metals on the Thermionic Properties)-Contributions to the Explanation of the Thermionic Emission on Non-isothermally Heating Surfaces.-K. Becker, p. 619.


Cold Emission from Unconditioned Surfaces.-W. H. Bennett, p. 597.

Vergleich zweier Verfahren zur Bestimmung von Kontaktspannungen zwischen Metallen (Comparison of Two Methods of Determination of Contact Voltages between Metals).-G. Mönch, p. 599.

Analysis of Vacuum Tube Production Costs.-p. 501.


Triode démontable de 150 kw (150 kw Dismountable Triode).-F. Polwek and P. Chevalier, p. 558.

Das Gitterdyndatron (The "Grid" Dynatron Circuit).-V. Ito, p. 597.


The Philips Electron Valve in Amplifier for a Detector of a Charge of 10^-10 Coulomb.-Leprince-Ringuet, p. 501.

Die Magnetron als Negative Tube

Die Reactions Diminishing the Graphical Fermi-Dirac Statistics Applied

Die Characteristiken Wolframdrahtes — Barton, p. 42.  


de Telefunken

Sujet des Diagrammes thermionische Emission der Natriumschicht — Ameiser, p. 35.

Output Valves in Parallel. — W. J. Page, p. 270.  
An Estimation of Patch Sizes on a Themistor Tungsten Filament. — B. L. Hartshorn, p. 357.

Photoelectric Properties of Oxide Cathodes. — Huxford, p. 218.  

New Structure Principle in Tube Design. — W. L. Krail [Arcturus]  
New Valves. — p. 442.  
Conductivity of Oxide Cathodes. — N. H. Williams and W. S. Huxford, p. 327.  
Thermionic Emission of Oxide-Coated Cathodes Containing an Ni-Al Alloy Core. — N. E. C. Jones, p. 98.  
High Efficiencies of Emission from Oxide-Coated Filaments. — B. J. Thompson, p. 58.  

Output Valves in Parallel. — W. J. Page, p. 270.  
An Estimation of Patch Sizes on a Themistor Tungsten Filament. — B. L. Hartshorn, p. 357.


Maximtron. — See also Ultra-Schott Wand.  
The "Unit" Method of Valve Manufacture contrasted with the "Departmental Method."— E. Bauer and R. Brindel, p. 558.  
A Note on the Mathematical Theory of the Multielectrode Tube.  
Mercury Arc. — See: "Thyratrons."  
New Metal-Sprayed Valves. — p. 356.  
Voreinstellung zur Demonstration der Wirkung einer monotonen Widerstandsverstärkung auf die Ozsillographie eines Wolfrandrehtes (Lecture Experiment Demonstrating the Effect of a Monotonic Sodium Layer on the Thermionic Emission of Tungsten Valves). — R. Salzmann and H. Dresler, p. 98.
Electrostatic Surface Fields near Throttled Tungsten Filaments by a Simple Method.—L. B. Varday, p. 45.
Graded Triodes 'Telefunken' 'Deg' Valves.—G. W. O. H., p. 156.
Repartion des Températures dans une section droite d'un filament. (Thermal distribution in a cross section of a Flat Incandescent filament).—G. Ribaud, p. 442.
Teufel's Pointers for Charting Angles (Direction-Finding, etc.)—B. Liston, p. 325.
A Standard Test Set for Vacuum Tubes.—M. H. A. Lindsay, p. 270.
Thermionic Emission.—S. Dushman, p. 388.
Di Alcuni Tubi Termoelettrici a piu di Tre Elettroli (Some Thermionic Valves with more than Three Electrodes).—U. Ruelle, p. 98.
Zum Verhalten des Thoriums in Wolframgludehren (The Behaviour of Thorium Oxide in Tungsten Filaments).—W. G. Burgers and J. A. M. van Liesl, p. 270.
A Note on the Time Required to Set up an Conflagration in an EG-17 Thyratron as Determined by a Study of a Linear Time Axis Circuit for an Oscillograph.—B. Nottingham, p. 500.
Characteristics of Small Grid-Controlled Hot Cathode Mercury Arcs of Thyratrons.—W. B. Nottingham, p. 259.
Grid Current Required by Hot Cathode, Grid Controlled Mercury Arcs ['Thyratrons'] before Discharge.—W. B. Nottingham, p. 387.
Some Characteristics of Thyratrons.—J. C. Warner, p. 618.
The Valve Triangle.—G. W. O. H. Meyer, p. 441.
Das Röhrendreieck (The Triangular Valve Diagram).—E. Meyer, p. 42.
Fundamental Triode Equations.—U. Ruelle, p. 441.
Transmitting Valve with Two Grids with their Openings Staggered.—Teufel, p. 450.
100 kW. Valve Type C.A.T.10.—W. J. Picklen, p. 156.
Ultra-Sensitive Vacuum Valve.—General Electric Company, p. 43.
Stato Attuale della Tecnica della Construzione dei Tubi a Vuoto (Present State of the Technique of Valve Construction).—A. Mattei, p. 43.
The Variable-Mu Tube and Distortion in Radio Receivers.—A. G. Campbell, p. 369.
The New Variable-Mu Vacuum Tubes.—A. G. Campbell, p. 386.
The Variable-Mu Valve.—R. O. Carter, p. 368.
Measurements on Voltage fluctuations between two Metalis (Measurements of Volta Voltages [Potential Differences between Surfaces in a Diodelectric and in Vacco between Pure Metal]).—H. Kistice, p. 213.
DIRECTIONAL WIRELESS.
The Abbeville Radio Beacon for Aircraft.—p. 271.
Short-Wave Lighthouse by the Acdooc System.—p. 559.
Wireless Direction Finding as an Aid to Aerial Navigation.—p. 43.
Safety in Aerial Navigation through Radio Communication.—E. F. Allen, p. 43.
Flusserschung durch Richtfunkahlen (Radio beacons Aids to Aerial Navigation).—M. Rabkowitch, p. 214.
Aeronautical Radio Communications.—E. Sibley, p. 99.
Le Gageco et le Sondeur aériens (Direction and Altitude Finding for Aircraft in the General Situation in France).—E. Fromy, p. 271.
Cours de l'Inst. de Géographie (Direction-Finding for Aircraft).—M. H. Glics, p. 271.
Prevention of Collision between Aircraft.—Bureau of Standards, p. 572.
Aircraft D.F. Research: Night and Twilight Errors, Ultra-Short Waves, etc.—Wireless Division, German Aircraft Research Establishment.—B. Kees, p. 156.
Airplane Flight Aided by Electronics [Beacon, Automatic Control, Attenmates, etc.].—C. F. Green, p. 560.
Sent Altimeter for Fog Flying.—C.E.C. of America, p. 328.
Directional Work on Atmospheres.—See under "Atmospheres."


Recent Developments in Architectural Acoustics.- P. E. Sabine,


Auditory Bone Conductors.- C. L. East, p. 431.

A Two-Dimensional Boundary Problem for the Transmission of Attenuation through a Semicircular Heterogeneous Conducting Medium (Mathematical Theory Applicable to Telephone Lines).- H. P. Evans, p. 101.

Broadcasting without a Microphone.- H. T. Dole, p. 516.

Measurements on Audio-frequency Interference in Submarine Cable Transmissions.- T. Meier, p. 45.

A Canonical Transformation and the Vibrations of a Loaded String.- R. B. Lindsay, p. 592.


Electricity.- R. Raven-Hart, p. 455.

L'Invention phonétique à la radio: Les Sales de Cinéma sonore (The Sound Installation and Acoustics of Sound Cinema Halls).- L. Kotel, p. 217.

Automatic Color Organ.- E. B. Patterson, p. 621.

Absolute Calibration of Condenser Transmitters.- L. J. Strivan, p. 216.

Wave Motion and the Equation of Continuity.- H. B. Lindsay, p. 563.

Some Measurements of the Longitudinal Elastic Frequencies of Strings, using a Magnetostatistic Oscillator.- D. S. Macey, Jr., p. 275.

On the Amplification of Ondes sonores dans un Milieu gazeux homogène (The Damping of Sound Waves in a Homogeneous Gaseous Medium).- V. Roeder, p. 339.

Über das Dämpfungsgesetz der mathematischen Physik, mit einer Anwendung auf die Akustik grosser Räume (The Damping Problem of Mathematical Physics, and an application to the Acoustics of Large Rooms).- M. J. O. Strutt, p. 106.

Making a Dead Aids.- p. 330.


Linear Detection in an Audio-frequency Generator using the Heterodyne Principle.- A. G. Hinman, p. 504.


A New Ultrasonic Diffusion Grating.- G. E. Thompson, p. 605.


The Directional Characteristics of Single and Multiple Cone Dis- phragms.- I. Weiss and L. Maller, p. 504.


An Analysis of Distortion in Resistance Amplifier.- E. B. Mor- nion, p. 271.


The verruferungsmögliche Übertragung auf einen Lautsprecher durch den Ausgangstransformator (The Distortionless Transfer of Power to a Loud Speaker through the Output Transformer).- H. Wiegge, p. 214.

An Experimental Study of Kundt's Tube Dust Figures.- E. Hutchinson and F. B. Morgan, p. 505.

A Dust-Frequency Discriminator (Also Sound Oscillator for General Laboratory Use).- G. C. Lounsbury, p. 169.

The Last Component of Orifices.- G. J. Kumar, p. 502.

Some Effects of Intense-audio Frequency Sound.- N. Gandour, p. 216.

The End-Corrections of an Open Organ Flue Pipe, and the Acoustical Conduction of Orifices.- A. E. Bate, p. 100.


The Sound Field due to a Conical Horn with a Source at its Vertex.- K. Sutro, p. 100.


Über Formfaktor-Messungen (On the Measurement of Form Factor).- H. Konze, p. 44.


Chart of Sound Frequency Analyses.- p. 504.

A New Principal of Sound Frequency Analyses.- T. Theorell, p. 565.


A Direct-Reading Thermionic Frequency Meter for 20 to 100,000 cycles per second.- Guarnaschelli and Woelsch, p. 325.
A Simple Method of Harmonic Analysis for Use in Radio Engineering Practice.—Koder, p. 629.

Percentage Harmonic Distortion.—M. G. Scroggie. G. W. O. H., p. 504.

Vorlesung über die Schwingungen in einem bienenlehrer und die elektronenröhren in Verbindung mit der Theorie der Hörorgane (Experimente auf die Theorie der Hörorgane. Ausgangspunkt. V. 212.

High Audio Power from Relatively Small Tubes.—I. E. Barton, p. 563.


Problems in Acoustic Interference with Gases.—J. C. Hulburt, p. 216.

A New Use for ““Kittles”” Cathode-Ray Oscilloscope and Microphone for Language Teaching.—Westinghouse Electric Co., p. 504.

The Blum Rhythmograph and Rhythmoscope for the Making of Sound Films in Different Languages.—A. Gradenwitz, p. 273.

The Obtaining of Large Undistorted Outputs for a Minimum of Plate Potential.—A. Forsmann, p. 442.

A Giant Loud Speaker.—p. 505.

AFC “‘Audible Speaker.”—p. 45.

The Oscillograph, as a Vogt Electrostatic Loud Speaker.—p. 398.

The “‘Conduction”’ or “‘Loud Speaker.”—A. V. Bedford, p. 561.

An Effective Loud Speaker at the Higher Audible Frequencies.—L. G. Bostwick, p. 214.

A Mood Speaker Good for Twelve Thousand Cycles.—L. G. Bostwick, p. 560.

“‘Stoels”’ Electrostatic Loud Speaker, Bias provided by Signal Amplification.—W. E. Ward, p. 45.

The Moving Coil Loud Speaker [Difference of Coil Constants when Stationary and in Motion].—H. M. Clark, p. 443.

Condoner Loud-Speaker with Flexible Electrodes.—E. E. Edelman, p. 572.

A New Loud Speaker.—H. J. Foner, p. 444.


Operating a Loud Speaker without High Tension Circuit.—S. R. Skajerl and P. J. Ketcham, p. 159.

Modern Views on the Moving Coil Loud Speaker.—W. N. McLaughlin, p. 214.

New Giant Loud Speaker.—H. Neumann, p. 158.


The Differential-Working Condenser Loud Speaker (Vogt).—E. Schwandt, p. 45.


On the Amplitude of Driven Loud Speaker Cones.—Strutt, p. 390.

A Precision Stiffness Meter (applicable to Telephone and Loud Speaker Diaphragms).—D. A. Oliver, p. 44.

Stroboscopic Observation of Loud Speaker Diaphragms.—M. von Ardenne, p. 159.

Subjective Interpretation of Loudspeaker Frequency Response Curves in Terms of Loudness.—D. A. Oliver, p. 620.

Loud Speaker Impedance.—W. A. Barlow, p. 214.

Loud Speaker Listening Test.—R. P. Glover, p. 389.

A New Moving Coil Loud Speaker Movement.—Levy, p. 443.

Loud Speaker Sound Pressure Measurements.—E. W. Kollogg, p. 560.

Loud Speaker Tests and Performance Factors.—D. A. Oliver, p. 101.

Notes on the Baffles and Sound Paths (Note on Loud Speaker Windings).—J. Caplet, p. 216.


The Upper Register in Moving Coil Loud Speakers.—N. W. McLaughlin, p. 561.

The Lower Register in Moving Coil Loud Speakers.—N. W. McLaughlin, p. 389.

Über Hochleistungslautsprecher (High Power “‘Blattblacher” Loud Speakers).—H. Neumann and F. Trendselenburg, p. 389.


Absolute Sound-density in Loudspeakers.—E. F. Snook and C. Zwickler, p. 44.

Low-Frequency Amplification by a Push-Pull Circuit Using One Four-Electrode Valve.—Knutz, p. 389.

Low Note Response of Musical Instruments and Loud-Speakers.—W. Schreiber, p. 388.

Mesures des Intensités sonores (The Measurement of Sound Intensities: the Acoustic Calibrations, p. 443.

Mesure des Intensités sonores par la méthode des Scintillations (Sound Intensity Measurements by the Method of “Acoustic Twinkling”).—P. Carpentier, p. 216.


Ein neues elektrodynamisches Bandakouphonen (A New Electro dynamique Band Microphone).—E. H. Hartmann: Siemens and Halske, p. 561.

Gold Contact Surfaces on Microphone Diaphragms by Cathode Sputtering.—Freih. p. 563.

Some Microphone Measurements and Some Suggestions with regard to Microphone Arrangements.—J. E. Lemieux, p. 44.


Condenser and Carbon Microphones—Their Construction and Use.—W. C. Jones, p. 521.


Microphonometer Analysis of Moviemote Sound Records.—L. V. Katchen, p. 45.

Bedeutung der Mitnahme in der Akustik (Importance of the ”Mitnahme” Effect [Pulling into Tune] in Acoustics).—J. Zemek, p. 45.

La Technique acoustique moderne et ses applications (Modern Acoustical Technique and its Applications).—Ph. Le Corbeiller, p. 160.


“‘Keyboard” Device for Controlling the Oscillator Frequency in Electronic Musical Instruments.—Lettes and Heiberg, p. 621.

Utilisation de tous les Formats d'instrument, a Cordes (Utilisation of All Types of String Musical Instruments).—B. Buzo and P. Just, p. 620.


Suppression of Noise.—p. 504.


Ground Noise in Sound-on-Film Pictures.—H. G. Tasker, p. 160.
The Dependence
Volume Control.

Lautstärkeregulierung durch
A

The Vibrations
Velocity
Oa the

The Velocity

T

The Telephone

Über

Vitesse de

Tie

Improvements
Transformer

Wireless World " all

p. 329.

Variable
K. Kobayasi,
of

Awbery,

Balme

p. 390.

W. H.

Oatley,
of

A.

Vitesse de

D.

K.

Men's

K.

p. 100.

Choke

Coils).

Regeldrosseln

(P. 505.

The Amplification of Small Currents.—See also under "Subsidiary Apparatus."

in Eichrodt.


Electrically Coated Paper with

Soft

p. 215.

p. 272 and 485.


Note on the Voies du Son dans le Papier (Note on the Velocity of Sound in Paper) —M. Caplet, p. 219.

On the Velocity of Sound in Soft and Brittle Substances.—E. J. Bragg, p. 103.

Velocity of Sound in Tubes: Ultrasonic Method.—G. S. Field, p. 505.

Velocity of Sound—Waves in a Tube.—G. G. Sherratt and J. H. Newhall.


Larme vibrante excitée par le Milieu ambiant [A Vibrating Blade Excited by the Medium Surrounding It].—Z. Carrier, p. 683.


The Natural Frequencies of the Elastic Transverse Vibrations of Loaded Strings, Rods, Membranes and Plates.—K. Kjøtt, p. 444.

The Vibrations of Membranes and Plates.—R. C. Cowell, p. 506.

The Vibrations of a Plate with a Fixed Centre.—R. C. Cowell, p. 583.


Stahlanmachten hornel schallwellen (Making Short Sound Waves Visible).—H. Krones, p. 100.


A Distortionless Volume Control.—p. 505.

Lautstärkeregulierung durch Regeleinsätze (Volume Control by Variable Choke Coils).—K. Hoffmann, p. 659.

Volume Control.—See also under "Reception."

The Dependence of Vowels on Absolute Pitch.—W. Englund and F. Genovese.


Determination du Point de Fonctionnement de la dernière Lampe "Lasse Fréquence" (Determination of the Working Point of the Final I.F. Valve (usually Designated) "Distortion Rule").[9]—F. Bécaud and J. de Mare, p. 619.

PHOTOTELEGRAPHY AND TELEVISION.


An Arrangement for Amplifying Weak Photoelectric Currents [using an Electrometer Triode and an Ionisation-Chamber as Adjustable Load].—Lejay, p. 298.

The Amplification of Small Currents.—See also under "Subsidiary Apparatus."


A New Modulation Tube (Meyew Vapour Arc Tube giving very Large Output of Modulated Ultraviolet Light).—H. D. Dingley, p. 682.

Atmospheric and Television.—F. Bray, p. 633.

Photoelectric Effect from a Barium Oxide Coated Platinum Filament.—F. Balme and D. Pierce.—Newbury and H. W. Leleux, p. 762.


The Dependence of the Breakdown Voltage of Liquid Dielectrics on Pressure.—Edler, p. 47.


German Cables for Picture Telegraphy (Berlin—Nauen).—p. 47.

Improvement of Twin Film Caesium Photoelectric Tubes.—S. Scarf and M. Suzuki, p. 390.


The Beeinflussung der lichtelektrischen Eigenschaften des Caesium durch Adsorption an Salzleichtum (The Effect of Adsorption at Salt Layers on the Photoelectric Properties of Caesium).—H. de Hoe and M. C. Teves, p. 103.

Photoelectric Emission from Thin Films of Caesium.—L. R. Koller, p. 819.


Photionisation of Caesium Vapour by Absorption between the Series Lines.—C. Becker and F. L. Mohler, p. 104.

Wave Transmitter with very Rapid Training Picture focused on Photoelectric Surface at Negative Potential.—J. W. Case, p. 531.

Television by Cathode Ray (Farisworth System).—A. Dunstable, p. 531.

Fernsehnen mit Kathodenstrahlen (Cathode Ray Television [particularly the Farisworth System]).—H. Gandier and P. T. Farisworth, p. 596.


Cathode Rays in Television.—E. R. Wright, p. 560.

The Effect of the Presence of Coloidal Substances on the Breakdown Voltage of Insulating Liquids.—P. Böning, p. 531.

Copper-Copper-Oxide Lead Nitrate Photovoltaic Cell for Industrial Purposes.—C. G. Fink and K. D. Alpert, pp. 161 and 621.

Über den Entstehungsart der Photoelektronen in Ruptor-Kupferoxid-Photoelementen (On the Photoelectricity in the Copper-Copper-Oxide Photocell Photoelectric Cell).—W. Schottky, p. 46 and 161.

Über eine neue Kupfer-Kupferoxidstrahlen beobachtete Temperaturabhängigkeit des Sperrschichtphotoeffektes (On a Temperature-Variation of the Boundary Layer Photoelectric Effect observed in Copper-Copper-Oxide Cells).—H. Teichmann, p. 163.

The Use of the Copper-Oxide Photoelectric Cell for the Translation of Light into Sound Sound Waves.—R. A. Frohman, p. 531.

Recent Researches in the Copper-Oxide Rectifier and Photoelectric Cells.—Lejay, p. 357.

Variation dans le Spectre de la Sensibilité des Cellules au Photovoltaïque de Cuivre (Variation with Wavelength of the Susceptibility of Copper Photocell Photoelectric Cells).—P. Auger and C. Lapicque, p. 291.

Über einige Eigenschaften des Kupferoxyduls (On Some Properties of Copper Oxide) [Dependence on Temperature of Optical
Absorption (Preliminary Communication).—B. Goeden and
M. Mabini, p. 436.
Über eine photoelektromotorische Kraft in Kupferoxydul-
Kristall (On a Photo-Emotive Force in Cuprous Oxide
Crystals).—H. Printz, p. 504.
Der Kristall-Detektor als Photozelle (The Crystal Detector
as Photoelectric Cell).—M. Grützmacher, p. 103.
The Electro-Optical Kerr Effect on a Photoelectric Cell. P. III” (Grützmacher
Crystal Detector Photoelectric Cell).—p. 591.
The Influence of the Crystal-Orientation of the Cathode on that of
Electro-Optically Kerr Layer.—W. Göthel, p. 508.
Cycles and Trainage in the Cells Photoelektronen a Atmosphäre
gasem (Cycles and Lag-Effects in Gas-Filled Photoelectric
Cells).—H. A. Boutry, p. 446.
Sur les Directions d’Emission des Photo-Électrons (The Direction
Rechtsverkehrung der von polarisiertem Licht im Kaltstrom
geschossen Elektronen (Directional Distribution of the Elektronen
Emitted from Polarsum, Under the Action of Polarised
Light).—A. Kraus, p. 506.
Negative Photoelektriten bij Gasontladingen (Negative Photoelectric
Effects in Discharges in Gas).—F. M. Penning, p. 665.
The Stresses in Rotating Discs. A. F. Cornock, p. 564.
Electrodeless Discharge Tube for Television.—Harris and Jenkins,
p. 332.
Nebenerscheinungen bei der Elektrolyse von Natrium in Glas
(Secondary Effects in the Electrolysis of Sodium through Glass).
Einer elektrolytischen Darstellungmethode von Alkalimetallen in
the United Kingdom (An Electrolytic Representation
of Alkalimetalls).—R. G. Prinzler, p. 584.
Die Temperaturabhängigkeit der elektrischen
Absorption (The Temperature Dependence of Electrical
The Making of Mirrors by the Deposition of Metal on Glass.
—Bureau of Standards, p. 566.
Das Wellenlänge-Spektrum: Nipplenzelle oder Spektrum (The
Wavelength Spectrum: Nipplenzelle or Spectrum)
—W. G. Boutry, p. 564.
On the Possibility of Separating Neutrons into its Isotopes
by Rectification.—W. H. Keesom and H. van Dijk, p. 566.
Reducing the Striking Voltage of Neon Lamps.—D. Walters, p. 276.
Comparison of Light Changes into Current Changes by a Neon
Tube.—P. Penning, p. 565.
Neon Tube Light and Factors Governing its Life.—R. R. Macbatt,
p. 278.
Neon Tubes: Photoelectric Effect, Extinguishing Voltage, etc.
—Kyll, p. 508.
The Relations between Number of Elements, Size of Picture and
Brightness.—Fr. Wiedemann, p. 331.
Zur Einstellung grösster Bedingungszahlen beim Fernsehen (Increasing
the Number of Picture Elements in Television).—E. Kinne, p. 448.
Applied Optics, Papers on.——Strondel, Joacher, Golde and Pirani,
Field, Jentsch and Nahring, and others, p. 383.
Oscillations in Photoelectric Cells.—R. R. Redv, p. 102.
Recording and the Production of Images by Electro-Osmosis.
—M. Volmer, p. 440.
Photoelectric Properties of Oxide Cathodes.—W. S. Huxford, p. 218.
Effect of Electric Fields on the Emission of Photoelectrons
from Oxide Cathodes.—W. S. Huxford, p. 622.
Über den ausseren lichtelektrischen Einfluss an Phosphoren und
seine Abhängigkeit vom Entladungszaustand (On the External
Photoelectric Effect in Phosphorus in Various States and its
Dependence on the Discharge Condition).—Hülgardt
Gothel, p. 333.
Zur Frage der Abhängigkeit von Photostrom und Lichtstärke bei
Photoeffektiven Alkalienen (On the Question of the Relation
between Photoelectric Current and Intensity of Illumination
in Gas-Filled Alkali Photo Cells).—G. Kortum, p. 446.
Phototropic and Metastable Atom Emission of Electrons from
Surfaces. —C. Kents, p. 622.
Neure Forsch lichtelektrischer Zellen (New Forms of Photo-
electric Cell).—F. Schuetz, p. 531.
Photoelectric Cell Combining the Advantage of High-Vacuum
The Case Thalid Photoelectric Cell.—P. A. Suckanaj, p. 218.
Nava Photocells (The Nava Photoelectric Cell of the Tungsten
Co.).—G. Lohmann, and others, p. 104.
Thin-Film Photoelectric Cells with Great Sensitivity. —T. Asada,
p. 508.
Modifications of the Surface characteristic d’une Cellule photo-
electrique à Atmosphere gazeuse (Changes in the Characteristic Surface of a Gas-Filled
Photoelectric Cell for Changes of the Series Resistance).—G. A.
Ranzi, p. 275.
La Surface characteristic i = f (F, V) d’une Cellule photo-elec- trique à Atmosphère gazeuse (The Characteristic Surface i = f (F, V) of a Gas-Filled
Photoelectric Cell).—B. A. Boutry, p. 573.
Lichtstrahlung durch verdunkelten Lichtstrahler (On a Lighted
Light Source).—H. S. Schumaker, p. 597.
Inertia-less Light Sources for Television Receivers.—F. Winckel,
p. 47.
New Developments in the Lange Photoelectric Cell.—B. Lange, p. 275.

The Lange Photoelectric Cell: Output Increased Fifty and More Times by Use of Silver Selenide: Cost of Plant per Kilovolt: Comparative Costs.—G. H. Gannett, p. 219.

Lead-In Conductors for Quartz Glass Bulbs.—M. Ferguson, p. 392.

A Photoelectric Method of Measuring the Power of Surfaces to Reflect at Different Parts of the Spectrum.—J. P. Bilschkat, p. 566.


Photoelectric Cells.—H. W. Busch, p. 274.


Über das photoelectriche Verhalten von Salzen, insbesondere über die Wirkung, etc. (On the Photoelectric Behaviour of Salts, in Particular the Effect of Light of Long Wavelength on Salts Irradiated with Light of Short Wavelength).—J. Kapleko, p. 274.

The Bistabblasting in Fernsehen (Scanning in Television: a Survey).—F. W. Winkiel, p. 102.

Scanning at a Speed Inversely Proportional to the Brightness of the Part Scanned.—H. P. Plant. p. 274.


Metallic Mirrors for Scanning Devices.—W. Friesel, p. 331.


Le Secret des Transmissions photographiques et radiographek (Secret in (Facsimile) Telegraphic and Radiographic Transmissions).—E. Belin, p. 505.

Correlating the Selective Photoelectric Effect with the Selective Transmission of Electrons through a Cathode Surface.—A. R. Wright, p. 263.


The Home Construction and Testing of Selenium Cells.—H. Günther, p. 566.


Inaudible Television—Application of the Stereom Radio to Reduce Interference.—E. L. Gardiner, p. 274.


Electrostatic Surface Fields near Thoriated Tungsten Filaments by a Photoelectric Method.—L. B. Linford, p. 103.

The Effect of Systematic Surface Treatment on the Photoelectric Emission from Metals.—R. F. Hasstock, p. 103.

The Synchronisation of Television Receivers, with Special Reference to the Use of Cathode-ray Tubes.—E. H. HADES, p. 331.

Unter der Zentrenleistung von Fernsehen-Empfängern (The Synchronisation of Television Receivers by Means’ Frequency).—G. Schulter, p. 504.

Synchronisation System for Television, etc.—E. O. Lehmann and Company, p. 446.

Synchroniserung des Fernsehempfangs (Synchronisation the Television Receiver).—G. Leitshutzen and K. Schulmeister, p. 448.


The Baird Portable Television Transmitter. S. A. Mosley, p. 621.

Television Reception (An Outlook over the Progress of London Experimental Transmissions).—R. Bocchi, p. 621.

A German Opinion of [Baird] Screen Television.—Horst Hewel, p. 47.
Ultrakurzwellen - Fernsehen
Gehts mit Ultrakurzwellen?
Television on Ultra-Short Waves

Photoelectric Work Function and its Dependence
Synchronisation System for Vacuum-Tube Applications and Relay Circuits in Trans-oceanic Surveys

The Effect of the Temperature Dependence of the Work Function on and in Richardson's Equation.

Developments in New Television Systems.

Interest in Problems in Television.

Television: New Ideas and Less Ballyhoo.

Ultrakurzwellen - Fernsehen
Gehts mit Ultrakurzwellen?
Television on Ultra-Short Waves

Photoelectric Work Function and its Dependence
Synchronisation System for Vacuum-Tube Applications and Relay Circuits in Trans-oceanic Surveys

The Effect of the Temperature Dependence of the Work Function on and in Richardson's Equation.

Developments in New Television Systems.

Interest in Problems in Television.

Television: New Ideas and Less Ballyhoo.


Hochfrequenz-Messung zur Bestimmung der Dielektrizitäts-

Application of the Dynatron to the Measurement of Dielectric 
Losses.—H. Limma, p. 534.

Resistive and Inductive Effective Series Resistance of High-
Frequency Parallel Resonant Circuits (Measured by "Dynatron 
Oscillator" Method, applicable to Ultra-high Frequencies).— 
P. 321.

Apparatus for the Measure of the Prises de Terre 
(Laboratory Use).—A. von Moquard, p. 163.

Kaliokalisation of the Electromagnetic Equations.—A. Blondel, 
P. 529.

Appareils de Mesures électriques s'adaptant aux Electro-irrants 
(Electrical Measuring Instruments adapted to Electro-magnets).— 
L. Wolf, p. 108.

Ein verbessertes Diantenlektrometer und seine Benutzung zu 
Wechselwirkungen (A New Diantenlektrometer).—K. Engel and 
W. S. Wurth, p. 521.


Grasset Electrometer and Its Use in Photoelectric Measurements. 
—Barthelemy, p. 251.

Ein Pendelektrometer für hohe Spannungen (A Pendulum 
Improved Gold Leaf Electrometer) for High Voltages).—W. 
Löwecki, p. 567.

Die Genauigkeit des Quaderektrometers.—G. Nadolny, p. 694.

Über die Messung magnetischer Felder mittels Elektronen-
drähten (The Survey of Magnetic Fields by means of Electron 
Threads).—L. Bruch, p. 201.

Messung von Ionisation Current by means of the Zelem 
Electrometer.——E. B. D. Shuler, p. 229.

Über eine neue Feldstärke-Messung (A New Field Strength 
Measuring Equipment).—N. von Andorno, p. 106.

Some Notes on Field-Strength Measurements.——Cromer, p. 205.


Field Strength Measuring Apparatus: See also High Frequency, 
and under "Subsidiary Apparatus" (Signal Generators, Oscilla-
tors, Etc.).

A Fluxmeter with Counterbalanced Restoring Torque.—F. W. 
Hawthor, p. 201.


Über die Messung sehr kleiner Frequenzen und ihre Anwendung 
für Fernmessung (The Measurement of Very Low Frequencies 
for the Remote Determination of the Ordinates of Oscillatory 
Circuits, and its Application to Thermoelectric 
Metering).—E. Hude, p. 511.

Accurate Method of Measuring Transmitted Wave Frequencies 
at 5,000 and 25,000 Kilocycles per Second.—E. L. Hall, pp. 49 
and 251.

Banco de Demoltiplicazione Statica per la Misura di Frequenza 
sino ai 100 Cicli Sec. (Demultiplication Equipment for the Measurement 
of Frequencies up to 100 Cycles Sec.).—F. Vecchiacci, p. 49.

Chain of Static Demultiplicators for the Measurement of Frequencies 
from 10 to 100 Cycles per Second.—E. Vecchiacci, p. 394.

A Precise and Rapid Method of Measuring Frequencies from Five 
To Two Hundred Cycles per Second (Condenser Discharge 
Principle).—N. P. Case, p. 49.

Overloading and Simple Methods for Frequency Measurements 
(The Accurate Measurement 

An International Comparison of Frequency by means of a Luminous 
Quartz Resonator.—S. S. Jumko, p. 105.

Mesure absolue de Fréquence alla Ricezione (Absolute Measurement 
of Frequency on Signals Received from a Distance).—U. Rueke, 
p. 356.

Sur un Générateur à Lampe, de Fréquence très stable (A Valve 
Generator of Very Constant Frequency).—P. David, p. 448.

A Valve Generator Circuit of Very Constant Frequency.——David, 
p. 534.

Determination of Frequency and Damping of Resonating Circuits 
(incl. Aerials)—Tykoinski-Tykochnert, p. 394.

Frequency Checking: The Department of Commerce Monitoring 
Station at Hingham, Mass.—I. L. Weston and R. J. Renton, p. 577.


Comparison of Distinct Frequency Measurements in London, 
New York and Berlin.—Moggi, p. 825.

Capillary Waves Produced by Alternating Currents in 
Liquid Dielectrics, and Their Application to Frequency Measurement. — 
M. Katalinich, p. 570.

Frequency Measurements of High Accuracy. —J. J. Vormer and 
wan Geel, p. 447.

International Frequency Measurements. New Absolute Frequency-

A Thermionic Type Frequency Meter for Use up to 15 Kilocycles. — 
F. T. McNamara, p. 694.

La fréquence électromagnétique absolue du Laboratoire National de 
Radiocélectricité (The Absolute Standard Frequency Meter of the 
French National Laboratory of Radioccuracy).—B. Decaux, p. 505.

Un FREQUENZMEßER à Quarz piezoelectrique avec Modulation 
simultanée (A Quartz-Controlled Frequency Meter with Synchronous 
Modulation).—B. Decaux, p. 505.

Direct-Reading (Thermionic) Frequency Meter.—F. Guarnascelli 
and F. Vecchiacci, pp. 390 and 614.

Liquid-Medium Frequencymeter after Genusswig (A Simple 

Zeigerfrequenzmesser (A Pointer Frequency Meter).—F. Mittelmuth 
and H. Waidmaier, p. 392.

Messung geminer Frequenzabweichungen mit direkter Anzeige 
(The Measurement of Slight Frequency Variations by a Direct 
Display Instrument).—E. Mittelmuth and Jose Mittelmuth, p. 392.

The Dynatron Frequency Meter.—G. Grammer, p. 336.

New Frequency Meters using Dianten Oscillators.—G. Grammer: 
O. P. Suslov, p. 49.

Frequency Stabilisation of Radio Transmitters.—Forster and 
Beltrame, p. 496.

Verfeinern des Stabilitätsmessers (High-Frequency Measuring 
Apparatus).—A. Jaumann: Siemens and Halske, p. 566.

Über die Prämisse für den Idealfrequenzstabilisator (Calculation of the Impedance of Cylindrical Conductors of Any Shape of Cross Section).—M. J. O'Shea, p. 509.

Simple Induction Calculation.—L. H. Russell and G. B. 
Abrahams, p. 450.

A Graphical Calculation of the Inductance of Multi-Layer Coils 
with any Time Constant.—N. N. Solov'ev, p. 221.

Approximate Formule for the Inductance of Solenoids and Astatic 

Laboratory Method of Measuring Inductances with Ballistic 

Berechnung der Impedanz zylindrischer Leiter von beliebiger 
Querschnittform durch die Interpolation der Werte 
(Interpolation of the Impedance of Cylindrical Conductors of Any Shape of Cross Section).—M. J. O'Shea, p. 509.

Messung von zeitlich veränderlichen Spannungswanderungen mit 
Hilfe des Krefelds (Measurement of Temporarily Variable 
Voltage Phenomena Using the Kerr Effect).—K. Hoffmann, p. 45.

Methods of Making Lecher-Wire Measurements.—G. S. Field, 
p. 182.

Die Messung des Wechselstromwiderstandes einesseiger Dielektrika 
(Using the Impedance of the A.C. Resistance of Liquid Dielectrics). — 

Calorimetric Investigation of the Dielectric Loss of Liquid Dielectrics 
in Short Waves.—Vogel, p. 229.

Radiotelegraphic Determination of Longitudes. —M. Hasimoto, 
p. 448.
The Mavometer as a Further Experiment on Magnetostrictive Measurements on Magnetostriction Vibrators.

The Development of Mutual Inductance and Repulsion Coils on Magnetostrictive Vibrators. — J. M. ile, p. 570.

Magnetostrictive Oscillators. — E. L. Thomas, p. 589.

Comparison of the Magnetic Rotations of Crystalline and Melted Quartz. — A. Cotton, p. 449.

Researches on the After-Effect in Quartz. — Sargus and Shinmu, p. 570.


Investigations into the Behaviour of Quartz-Controlled Transmitters. — J. M. Handel, p. 458.


The Evolution of Even Overtones of Shear Vibrations in Quartz Plates. — J. R. Harrison, p. 49.

The Design and Manufacture of Quartz Plates. — S. Natsumura and K. Takahashi, p. 182.

Method of Obtaining a Quartz-Stabilized Frequency of a Required Exact Value. — W. Green and Coyns, p. 447.

Quartz. — See also Crystal, Piezo.

Piezoelectric Oscillators. — J. L. Thomas, p. 50.


Sulla Misura della Resistenza ad Alta Frequenza (The Measurement of Resistance at High Frequencies). — P. J. Lepert, p. 49.


A New Design of Precision Resistance Standard. — J. L. Thomas, p. 50.


Champs électriques circulaire et elliptique (Circular and Elliptic Rotating Fields (Graphical Construction)). — J. B. Struthers, p. 571.


Standard Frequency Service Has World-Wide Coverage.—p. 511.


The Maintenance to within one or two parts in a million of a Standard of Electromotive Force.—Notes on Standard Weston Cells by F. W. H. Muller and E. W. Howden, p. 510.


Standards of Measurement. Their History and Development.—R. J. Gaskell, p. 511.


New Suspension, particularly for Portable Instruments.—A. J. Lush, p. 335.

Temperature Control for Frequency Standards.—J. K. Clapp, p. 162.

Testing Wireless Receivers.—See Broadcast, and under "Reception."—H. W.烘焙, p. 124.


A Sensitive Two-stage Thermionic Voltmeter for Measuring Voltages.—K. Schlesinger, p. 221.

Röhrenvoltmeter für Netzanschlusse (Mains-Driven Valve Voltmeter).—E. H. Kalmann, p. 517.


A New Method of Measuring Short and Ultra-Short Wavelengths.—W. F. Polking, p. 572.

An Improved Vacuum Tube Voltmeter for Measuring High Frequencies.—H. K. Kalmann, p. 517.


The Measurement of High Voltages, with Special Reference to the Measurement of Peak Voltages.—L. S. Taylor, p. 106.

Ein neues elektrische-photographische Verfahren zu vermessung von Spannung.—E. S. Weis, p. 208.

A Method of Measuring the Surface of Wires on Inductance at High Frequencies.—M. Weston, p. 284.


Ein neues elektrische-photographische Verfahren zu vermessung von Spannung.—E. S. Weis, p. 208.


Das beschleunigten zweistufigen Röhrenvoltmeter für Netzanschluss (A New Two-stage Thermionic Voltmeter for Mains Supply).—K. Schlesinger, p. 221.

Rectifier Voltmeter for Netzanschluss (Mains-Driven Valve Voltmeter).—H. K. Kalmann, p. 277.

Discussion.—H. K. Kalmann, p. 277.
Der Kathodenoszillograph

Enregistrements d'Ondes

External

Aussenphotographie

Nutzeffekt

Leuchtschirm -Kontaktphotographie

Vereinfachtes Kipprelais für synchrone Zeitablenkung einer Glas-

Strahlsperrungen

Gross

for

Only One Stage

Fronted

raide,

p.

Linear

Cathode

Tubes

Photography

Kamera

Phenomena).

p. 825.

Ray Oscillograph with

K.

the

graphen (Rubber

C.

C.

Calosi, p. 108. 

On the Cathode Ray Oscillograph and the Surge Generator. 

336.-R. Oscillograph for Recording Periodic and Aperiodic

Method

Rectangular Co-ordinate

Timed Required

of

C.

脉冲

Oszillograph).

- J. Schad, p. 628.

Intermediate Frequency Tuning Condenser Requirements.

H. E. Rhodes, p. 659.

A Variable Condensoidal Condenser for Precision Measurements.

Knoll, p. 577.

336.-R. Condenser Paper.

p. 109.

Oszillograph.-


Fixed Condensers (Electrolytic and “Electro-Chemical”) at the

Paris Exhibition, p. 679.

Electrolytic Condensers for Radio Use.—F. W. Codley, Jr., p. 656.

Electrolytic Condensers—Characteristics and Methods of Measure-

H. L. Dunn, p. 523.

The Losses in Variable Air Condensers.—W. H. Gribusu, p. 337.

Hochspannungskondensatoren aus Porcellan (Porcelain High-

Voltage Condensers), p. 293.

High Voltage Porcelain Condensers (for Carrier Telegraphy, etc.).

W. Regekes, p. 165.

Some Applications of Condensers with Variable Capacity Rochelle

Salts.—A. P. Volgodin, p. 221.

On the Self-Inductance of [Roll] Condensers at Very High

 Frequencies.—Rothkevitch, p. 40.

On the Electrical Susceptance of Contacts between Solid Conductors. —J. Frante, p. 222.

Photographic Method of Securing Copies of Diagrams, etc., Without

the Use of a Camera.—E. J. Hoverstick, p. 430.

L’Amplificateur a Lampes et la Detection des Rayons corpusculaires

isole (The Valve Amplifier and the Detection of Isolated

Corpuscular Rays).—L. Levrique-Ronget, p. 513.

Das Zustandekommen und die Beeinflussung der fallenden

Charakteristik der Schwingkristalle (The Origin and Control of the

Falling Characteristic of the Oscillating Crystal).—F. Souli, p. 638.

A Simple Method of Producing Low Frequency Currents of

Sinusoidal Shape and their Measurement.—J. C. Bedford and

H. Josephs, p. 197.

Uber linear Stromregelung (Linear Current Regulation).—

G. Hauf, p. 628.

Magnetische Carre Tracer.—F. E. Haworth, p. 581.

Demonstration of an Instrument for Converting Two Curves into

One.—J. L. Haughton, R. Payne, p. 254.


Masschen elektrostatisch a Gilhrib (The Ginrhrib Electronostatic


Copper-Oxide Detectors.—V. N. Leneshinskaja, p. 112.

Eine Schwebungsmethode zur Bestimmung der Dielektrizitatskon-

stanten leerer Fliessspulen [A Best Method for Determination of

the Dielectric Constant of Conducting Fluids].—W. Graffander

and R. Weller, p. 106.

Variations with Temperature and Frequency of Dielectric Loss in

a Viscous, Mineral Insulating Oil.—H. H. Race, p. 337.

Dielektrische Verluste (Dielectric Losses).—H. J. Wangers, p. 128.

Dielektrische Verluste in Oilen (Dielectric Losses in Oils).—A.


Dielektrische Phänomene auf Hochspannungen (Dielectric Phenomena


Dielectric Properties and Chemical Constitution.—S. O. Morgan,

p. 572.

The Thermal Resistivity of Solid Dielectrics.—Report of British

Method of Construction of Inductances Allowing Adjustment in Two Rows.—Comp. Int. 290.


Electrophotographie von Isolierstoffen (Electro-photography of Insulating Materials).—A. Gemant, p. 266.


The Physics of Insulating Materials.—A. Morris Thomas, p. 281.


Pressures als Isolation in Hochspannungsaufgaben (Compressed Gas as Insulation in High Tension Apparatus) —A. A. Bödier, p. 284.


"Inflammable": a New Insulator.—La Théâlithie Insulating Varishons (Phenol Derivatives).—p. 284.

Oesillographie von Stroten in Isolierstoffen (Oscillography of Currents in Insulators) —A. Gemant, p. 194.


A Study of Telephonic Line Insulators.—T. T. Wilson, p. 165.

Isolatoren aus Kieselsäureglas Quarsisolatoren (Insulators of Silicate Glass and Quartz Insulators) —F. Skor, p. 162.


The "Prism Derivator" and the "Differentiograph."—E. von Harbou, p. 163.

A Photoelectric Intergraph.—T. S. Gray, p. 572.


An Method of Measuring Iron Losses at High Frequencies (7,000-70,000 Cycles/Sec.).—R. Glodew:—K. Schmiedt, p. 261.

Magnetostatik der Magneteisen (Magnetostatics of Compressed Iron Powder Cores).—F. Ollesnord, p. 267.

Highly Saturated Iron Resembling Copper in Softness and Other Properties.—L. Schubert, p. 163.


A Device for Maintaining Incheckmum in Low-power Electric Motors.—N. F. S. Hecht and D. P. Alexander, p. 108.


An Adjustable Air Leak for X-ray Tubes.—H. Keen, p. 266.


Factors Affecting the Output of Leschian Cells.—W. A. Kostjeve, p. 268.

Measurement of Lenard Rays.—L. S. Taylor, p. 256.

Surface Charge Figure, Dielectric Figures and Their Applications.—Y. Tordyama, p. 337.

Light Ray Pointers for Charting Angles (for Direction Finding, etc.)—Akasha Works—Weller, p. 259.


An Improved Method of Comparison for Small Magnetic Susceptibilities.—R. A. Fereday, p. 665.


Berechnung der Veldstärke bei Permanenter Magnete (Calculation of the Field Strength for Permanent Magnets).—W. Elenenas, p. 291.
Ultra-Short Waves for Broadcasting.—G. Leithäuser, p. 514.

Zur Technik des Sendens und Empfangens von Ultrakurzwellen, die nicht mehr von einer Funkstrecke moduliert sind, und (On the Technique of Transmission and Reception of Ultra-Short Waves Modulated with Several Modulated High Frequencies).

Der derzeitige Stand der Entwicklung der ultra-kurzen Wellen unter Berücksichtigung der Verwendungs möglichkeiten für Funkfunkzwecke (The Present Position in the Development of the Ultra-Short Waves, with regard to their Practical Possibilities for Broadcasting).—F. Gertz, p. 399.


U.S.I. Cosmic Data Broadcasts.—p. 53.

Latest Developments of Service and Technique in Telephony in the U.S.A.—H. Hopfinger, p. 110.

The Vienna Wireless Station (on Ultra-Short Waves).—C. Zinth, p. 113.


Wireless Communications.—Chetwood Crawford, p. 224.

GENERAL PHYSICAL ARTICLES.

Bestimmung der adsorbierten Gas auf metalloberflächen durch Wägung (Determination by Weighing of the Adsorbed Gaseous Layer on Metal Surfaces) —T. Strohhäcker, p. 156.


Sur la Décomposition de l'Aluminium (The Artificial Disintegration of Aluminium).—M. de Broglie and L. Leprince-Ringuet, p. 531.


The Distribution of Electrons in the Atom.—L. Goldstein, p. 111.

Sur la Mécanique quantique des trous atomiques (The Quantum Mechanics of Atomic Collisions).—L. Goldstein, p. 358.


Landes und Europa (The Dependence of the Breakdown Voltage on the Distance of the Grid at Air).—R. M. Key, p. 54.


Der Durchschlag (Dielectric Breakdown) of Air, and the Breakdown Time of Spark Gaps (Lichtenberg Figure Methods).—J. A. Tiedeman, p. 455.


Durchschlagsdauer und Bestrahlung (Breakdown Voltage and Irradiation).—K. Masch, p. 229.


The Distribution of Electricity near the Surface of Conductors (Theoretical).—G. Hochrath, p. 515.

The Waterman p. 515.

Contact Potential between Iron and Nickel.—G. N. Glase, p. 225.


Untersuchungen über Kontaktpotentiale etc. (Investigations on


The measurement of magnetic properties by a Faraday Cage. — E. H. Hush, p. 54.


in the presence of the ground.—J. B. Pomey:—J. R. Carson, p. 169.

Detect at a fixe distance in the gas Heine (Ultra) High Frequency [Electroless; Discharge in Rarefied Gases]—J. S. M. on p. 637.

Electrical Measurements between Conducting and Magnetic Material, and an Alternating Current (Mathematical Investigations)—Whitehead, p. 516.


Electronic Tubes in Electrical Service.—p. 386.

High Lights on Electronic Devices in Industry.—p. 227


Energy Supply in the Arctic Regions.—H. Barlow, p. 170.


The 193a German Radio Exhibition, p. 112.

The German Radio and Photo Exhibition. G.W.O.H. p. 112.


Physical and Optical Societies Exhibition (3 papers).—p. 287.

Finding the Expeditions, p. 516.

Préparation des tubes Kitho-electriciens (Fault Locating in Cable Systems or Overhead Lines) by the C.R. Osciograph).—J. Roling:—Rogowski and Fiebig, p. 287.

High Frequency Rectification for Direct Current from Artificial Source.—p. 286.

The Use of Filters with Photoelectric Tubes in Measuring Concentration of Solutions.—L. K. Koller, p. 399.

Distance Determination by Fochson and Wireless Telephony: Extension to Preventing Confusion at Sea.—p. 45.

Über ein optisches Verfahren für die Fourier-Analyse (On an Optical Method of Fourier Analysis).—H. Gernsman, p. 227.

On the Summability of Fourier Series.—E. Hill and J. D. Tamarkin, p. 188 and 515.


The Photographic Effects of Gamma-Rays.—J. S. Rogers, p. 287.


Geophysical Prospecting using Observed Variation of Signal Strength.—Chairman and Franklin, p. 516.

The Impending Experimental Survey; Review of its Final Report.—T. W. Edgewater David, p. 622.

The Detection of Rock Salt by the Methods of Electrical Geology.—P. M. and A. L. Witten, p. 227.


The Heating Effect of Short Radio Waves.—J. C. McLennan, p. 539.

The Heating of Electrodyes in High-Frequency Fields.—J. C. McLennan and A. C. Bartow (see also P. Wadell, same page), p. 54.

Der Vemag der Heizwirkung ihrer strenge Heizung, künstliche Wartung and Verallgemeinerung [The Heizwirkung, its Strict Use and Critical Appreciation and Generalisation].—H. Schulz, p. 158.

I.E.E. Wireless Section Chairman's Address.—C. E. Rickard, p. 70.


Index Opuscula in the Application to Electric Circuits Theory.—W. E. Simpson, p. 831.

On the Possibility of Applying the Cathode-Ray Oscillograph to the High-Speed Engines.—J. Obata and Y. Munamoto, p. 286.


Über die Verwendung sichtbar und unsichtbar, insbesondere ultravioletter Strahlen zur Nahrungsernährung und Veredelung.—[On the Application of Visible and Invisible—particularly


Intra-Ray Photography by the Use of Neocyanin, Kryptocyanin, etc.—W. Dieteler, p. 458.

Intra-Ray Communication,—Vielmeier; Schröter, p. 112.

Intra-Ray.—See also under Ultra-Violet


Vektorverteilung von Intensitetsunterschieden (The Vectorial Representation of Intensity Phenomena).—W. Spatz, p. 257.

Interference.—See under "Reception".

New Methods of Recording and Observing Angular Motion and Vibration in Internal Combustion Engines, using Television Technique.—A. Blom, p. 622.


Some Series and Integrals Involving Associated Legendre Functions.—W. N. Bailey, p. 631.

Talking Among a Beam of Light.—M. L. Mac Cormick, p. 228.

The Conduction of Light and X-Rays through Tubes.—J. Jentsch and E. Nailing, p. 519.

The Mechanical Equivalent of Light.—Ostern, van der Heid and Vermonten, p. 631.

Magnetochemistry.—See Sounds in Moving Mechanisms.

Medicine and Surgical Applications of Electricity.—B. Leggett, p. 458.

At the Chemical Interpretation of Memory.—G. W. Cole, p. 288.


A Microscopic Method to give an increase of Resolution up to 20 to 20 times beyond the Ordinary Microscope, using Scanning and Building Up by Photoelectric Means.—E. H. Snyde, p. 228.

Physical Detection of stigma of Mitorengetoilation).—O. Glasser and V. B. Seeds, p. 412.


The National Physical Laboratory Annual Report for the Year 193a—p. 170.

National Physical Laboratory Annual Report.—p. 632.

Dr. E. L. Johnson, p. 169.

Das Genauigkeitsmaß von Summen, Differenzen, Produkte und Quotienten der Beziehungszahlen (The Measure of Accuracy of Sums, Differences, Products and Quotients of Series of Observations).—p. 458.

Filtering Observations to a Curve.—N. Campbell, p. 189.


On H. W. Sarla's Operational Solution of a Volterra's Integral Equation when its Nucleus is a Function of (b + g) [Application to Electric Filters].—J. B. van der Pui and K. F. Nielsen, p. 226.

Telefonia ottica con Radiazioni invisibili (Optical Telegraphy with Invisible Radiations).—O. Mayorova, p. 239.


Engineering applied to Packaging.—D. Cassidy, p. 458.


Is a Radio Patent the Way Out?—p. 518.


The Photo Cell as applied to Industrial Problems.—J. V. Breisky, p. 458.

Photoelectric Apparatus for Testing Electricity Meters.—R. Laurent, p. 518.

Applications for the Large Photoelectric Cell: The Silver Seledine Cell.—B. Lange, p. 458.

Photocell Methods for the Examination and Analysis of Liquids and Gases.—B. Jakobsch, p. 341.

A New Photographic Effect.—E. F. Poinelier, p. 287.

Über objektive Vergleichsphotometer: (On Objective Comparison Photometers).—H. Tischmann, p. 458.


Zehn Jahre Forschung auf dem Physikalisch-medizinischen Grenzgebiet (Ten Years Research in the Physical-Medical Boundary Zone).—F. Deuser, p. 682.

Das Gespenst der Physik und Mathem. Stein's Convention in Königsberg, 1927.—p. 112.


Piezoelectric Gate and Amplifier.—R. A. Webster, p. 458.


Piezoelectric Measurement of the Velocity Radiations from a Very Absorbable Source.—B. Zehn, p. 112.


Reducing the Friction of Pivots by Piezo-Electric Vibrations.—Struhal, p. 575.


Symposium on Coordination of Power and Telephone Plants.—p. 458.


La Propagazione di luce e la Radiofissione (Illicit Propaganda and Nuclear Fission).—p. 457.

An Automatic Race Timer.—E. A. Speckman, p. 438.


Réalisation et Développements de la Radioélectrique (The Birth and Development of Radio-Electricity).—A. Blandet, p. 228.

The Radio Laboratory of the Electrotechnical Institute of the Technical High School, Vienna.—M. Rettlinger, p. 170.


Reciprocity Theorem.— See under "Propagation of Waves."—A. L. Schwartz, p. 488.

On a Wireless Receiver Record and Preserve Transmissions at Fixed Hours?—(Telegrapher-Receiver Combination).—W. Hohl, p. 270.

Electronic Recording of High Speed Projectiles.—p. 228.


Simultaneity Presented by Bodies Submitted to the Action of Resistance Coils.—M. Aehn, p. 227.

Exploration of Rotating Ferromagnetic Parts by the use of Rotating Fields.—J. Pette, p. 287.

On Rotations in Ordinary and Null Spaces.—S. A. Schelkunoff, p. 341.

Soviet Russia's "Five-Year Plan" for Radio.—M. Codde, p. 399.

Scientific Apparatus.—E. J. Holmwood, p. 170.

All-weather Sextant using Infra-red Photo-electric Cell.—MacNeil, p. 341.

Die Entwicklung der Kurzwellentechnik (The Development of Short-Wave Technique).—O. John and F. Schrader, p. 831.

The Measuroscope: An Apparatus for the Assimilation of Abnormal Physical Parameters.—Schwabe, p. 832.

Biocatalytic Effects of High Frequency Audible Sound Waves.—W. E. Buckingham, N. Gage, p. 458.

Gerns Killed in Laboratory by High-Pitched Sound Waves.—O. B. Williams and N. Gaines, p. 458.

The Wireless Telephone on land and undersea Strablings of the Electric Spark (The Effect of a Magnetic Field on the Long wave Radiation of the Electric Spark when passing through a mixture of Canada Balsam and Molybdenum Granules).—N. A. Lewicki, p. 289.

Application of Spinor Analysis to the Maxwell and Dirac Equations.—O. Laporte and G. E. Uhlenbeck, p. 315.

Theoretical Technique of Cathode Sputtering.—C. H. Cartwright, p. 228.


Sputtering.— See also under "Subsidiary Apparatus."—see p. 315.


Uber die Leitung von Schwingungsauflagen mittels symbolischer Differentialmethode (On the Solution of Oscillation Problems by means of Symbolic Differentiation).—W. Gauß, p. 188.


Thermion Stabilizer for X-Ray Tubes.—W. K. Knauer, p. 112.

Traffic Controlled by Light Beams.—R. C. Hitchcock, p. 287.

Teletransmitting from Transmitters in the Canadian National Railways System.—J. C. Burkeleb, p. 112.

Transients and Fourier Integral.—N. K. Kylov, p. 341.

Electroacoustic Notes on Telephone Transmission Theory.—W. T. Palmer, p. 188.

Biological Effects of Fields Oscillating at Ultra-High Frequencies.—S. Jelinek, p. 169.

Die Erwärmung der Elektrolyte, etc. (The Heating of an Electrolyte in an Ultra-High Frequency Condenser Field, and its Significance in Metallurgy).—J. Fatigot (see also McLennan and Burton, same page), p. 54.


Theoretical and Experimental Investigation of a Method of Registering Small Capacity Changes, for the Continuous Recording of Processes in Progress [Ultra-Micrometer].—A. Schulze and G. Zickner, p. 169.


Depth- and Selective Effects of Short and Ultra-Short Electric Waves.—E. Schleiphake, p. 458.

Applications médicas des Ultrasons médicas (Medical Applications of Ultra-Sound Waves).—P. Ancelme: Koulkeff, p. 458.


Radio Charts the Upper Air.—J. D. Van Brakle, p. 112.


Distanza dei Valori e Distanza dei Moduli Comparabili (Equations).—P. Ancelme, p. 341.


Depth- and Selective Effects of Short and Ultra-Short Electric Waves.—E. Schleiphake, p. 458.

Applications médicales des ultrasons médicas (Medical Applications of Ultrasonic Waves).—P. Ancelme: Koulkeff, p. 458.


Radio Charts the Upper Air.—J. D. Van Brakle, p. 112.


Distanza dei Valori e Distanza dei Moduli Comparabili (Equations).—P. Ancelme, p. 341.


Depth- and Selective Effects of Short and Ultra-Short Electric Waves.—E. Schleiphake, p. 458.

Applications médicales des ultrasons médicas (Medical Applications of Ultrasonic Waves).—P. Ancelme: Koulkeff, p. 458.