

445. **J. A. Fleming.** "Problems in the Physics of an Electric Lamp." *The Proceedings of the Royal Institution. Volume xiii.* Page 34. 1890.
446. **J. A. Fleming.** " Problems in the Physics of an Electric Lamp." *The Proceedings of the Royal Society.* Volume, xlvii. Page 118. 1890.
447. **H. S. Round.** " Improvements in the Production of Continuous Electrical Oscillations and in the Utilisation thereof for Wireless Telegraphy and Telephony." British patent No. 13248 of 1914. (The Marconi Co.'s patent relating to the use of Grid Condenser and Grid Leak.)
448. **J. A. Fleming.** " The Thermionic Valve." U.S. patent No. 803684 of April 19th, 1905.
449. **J. A. Fleming.** " The Thermionic Valve." German patent No. 186084 of 1905.
450. **Lee de Forest.** " The Audion as an Amplifier and Detector." *The Proceedings of the Institute of Radio Engineers.* Volume ii. Page 15. 1914.
451. **Lee de Forest.** " The Audion." *The Electrician.* Volume lxxii. Page 285. 1914.
452. " Conduction of Electricity through Gases." *The Electrician.* Volume lviii. Page 216. 1906.
453. **E. Reisz.** Discharge Tube." U.S. patent No. 1142625 of 1913.
454. **E. Reisz.** Discharge Tube for the Magnification of Electric Currents." *The Electrician.* Volume lxxii. Pages 721 to 725. 1914.
455. **R. Lindemann and E. Hupka.** " The Lieben-Reisz Relay." *Archives für Elektrotechnik.* Volume iii. Page 49. 1914.
456. **Elmer E. Bucher.** Book „ Vacuum tubes in Wireless Communication." Published by *Wireless Press* (New York).
457. **I. Langmuir.** " Vacuum Tubes." See *The Proceedings of the Institute of Radio Engineers.* Volume, iii. No. 3. Pages 287 to 289. September 1915.
458. **Irving Langmuir.** Thermionic Currents in High Vacuum." *The Physical Review.* Volume ii. Page 450. 1913.
459. **Irving Langmuir.** The Pure Electron Discharge.." *Proceedings of the Institute of Radio Engineers.* Volume iii. Page 261. 1915.
460. **Irving Langmuir.** " Electron Discharge." *The Electrician.* Volume lxxv. Pages 227, 243, and 323. 1915.
461. **Saul Dushman.** " New Device for Rectifying High Tension A.C." *The Electrician.* Volume lxxv. Page 276.
462. **Lee de Forest.** " The Pliotron." *The Electrician.* Volume lxxviii. Page 505. 1906.
463. **William C. White.** " The Pliotron Oscillator for Extreme Frequences." *The General Electric Review.* Volume xix. Page 771. 1916.
464. **Fleming.** " Thermionic Valve." British patent No. 24850 of November 16th, 1904.
465. **J. A. Fleming.** Patent Suggesting the Employment of Tungsten for Valves. British patent No. 13518 of 1908.
466. **Charles Gilbert.** An Article in the *Radio News*, Volume iv., No. 4, October 1922, entitled " The True Story of the De Forest Vacuum-Tube."
467. **Marius Latour.** " Mercury Vapour Tube for Amplification." *Radio News.* Volume iv. No. 4. Page 627. 1922.
468. **Raymond Phillips.** " Radio Control of Airships." *Radio News.* Volume iv. No. 8. Page 1458. 1923.
469. " Judgment of Court of Appeal in the Action by the Marconi Co. against the Mullard Valve Co. *Wireless Weekly*, Volume i. Nos. 2, 3, and 4. Pages 102, 188, and 248.
470. **Von Lieben.** " Valve Patent." British patent No. 1482. 191.1.
471. **J. A. Fleming.** " The Thermionic Valve." An Article in *Popular Wireless* of October 13th, 1923. Volume iv. No. 72. Page 199.
472. **Lee de Forest.** „Three Electrode Valve." British patent No. 1427 of 1908.
473. **H. J. Round.** „Valve Patent." British patent No. 28413 of 1913.
474. **Graf Georg von Arco and Alexander Meissner.** " Improvements in and Relating to Relay arrangements for Alternating Currents." British patent No. 2,52 of 1914.

475. **Peri and Biguet.** „French R-Type Valves." British patent No. 126658 of 1916.
476. **British Thomson Houston Co. Ltd.** " The Dynatron." British patent No. 114539 of 1918. .
477. **A. W. Hull.** " Negative Resistance." *The Physical Review* Volume vii. Page 141. 1916,
478. **Edwin H. Armstrong.** " Regenerative Amplification." See *The Proceedings of the Institute of Radio Engineers* Volume.iii. No. 3. September 1915.
479. **John Scott-Taggart.** " Elementary Text Book on Wireless Vacuum Tubes."
480. **J. L. Hogan.** " Comparison of Heterodyne, Ordinary Detector, and Tikker Methods of Reception." See *The Proceedings of the Institute of Radio Engineers.* Volume i.
481. **E. H. Armstrong.** A Paper read before the Institute of Radio Engineers entitled " Hard Valve Characteristics and Circuits on March 3rd, 1915.
482. **Holweck.** " Improved High-Power Valve." *Comptes Rendus* No. 178. Pages 1803-1805. May 26th, 1924.
483. **Marcay Bouche and Percheron.** " A Wirelessly Controlled Aeroplane." *The Wireless World.* Volume xi. Page 378. December 1922.
484. **J. A. Fleming.** „A Lecture before the Royal Institution. " The, Thermionic Valve in Wireless Telegraphy and Telephony." *Proc. of R.I.* May 21st, 1920.
485. **J. A. Fleming.** " The Conversion of Electric Oscillations into Continuous Currents by Means of a Vacuum Valve." *The Proc. of the Royal Soc., London.* Volume lxxiv, Page 476. 1905.
486. **H. J. Round.** " Vacuum Tubes for Continuous Oscillations." British patent No. 13247 of 1914.
487. **Harold P. Donle.** " A New Non-interfering Detector." *The Proc. of Me Institute of Radio Engineers.* Volume xi. No. 2. Page 97. 1923.
488. **A. W. Hull.** " The Dynatron." See *The Proc. of the Institute of Radio Engineers.* Volume vi. Page 5. 1918. Also *The Wireless World.* Volume vi. Page 148. 1918.
489. **J. A. Fleming.** " A Four Electrode Thermionic Detector for Damped and Undamped Electric Oscillations of High or Low Frequency." *The Wireless World.* Volume viii. Pages 676 to 683.
490. **Lee de Forest.** " The Ultraudion Detector.", *The Electrician.* Volume lxxiv. Pages 729 to 735. March 5, 1915.
491. **E. H. Armstrong.** " Recent Developments in the Audion Receiver." *The Proc. of the Institute of Radio Engineers.* Volume iii. Page 215. 1915.
492. **E.H. Armstrong.** " Operating Features of the Audion." *The Electrical World.* Volume lxxiv. Page 1149. 1914.
493. **L. W. Austin.** " Quantitative Experiments with the Audion." *The Electrician.* Volume lxxvi. Page 862. 1916.
494. **A. H. Taylor.** " The Double Audion Type of Receiver." *The Electrical World.* Volume lxxv. Page 652. 1915.
495. **O. M. Wright.** " Receiver for Wireless Signals." British patent Nos. 8926 (1915), 102821, 102822 and 102823. 1916.
496. **W. H. Eccles.** " Recent Patents in Wireless." *The Electrician.* Volume lxxviii. Page 464.
497. **Gesellschaft für Drahtlose Telegraphie.** „Improvements in Therinionic Generators." Patent No. 189095. November 4th, 1921. Described in *The Engineer*, May 18th, 1923.
498. **H. de A. Donisthorpe.** " The Thermagnion." A New Radio Detector. *The Wireless World.* Volume ix. Pages 308, 309, and 310. August 20th, 1921.
499. **F. S. Robertson.** Abstract of a Paper delivered at King's College Wireless Society entitled " The Construction of Wireless Valves." *The Wireless World.* Volume ix. No. 40. Pages 401 to 408.
500. **J. H. Roberts.** " The Development of High-power Silica Valves." *Modern Wireless.* Volume i. No. 7. Pages 535 to 539.

501. **Paul D. Tyers.** " The Negatron." *Modern Wireless*. Volume i. No. 3. Pages 167 and 168.
  502. **A. W. Hull.** " The Magnetron: A Valve Actuated by a Magnetic Field." *The Journal of the American I.E.E.* Volume , xl. Pages 715 to 723. September 1921.
  503. Article in *Modern Wireless*. Volume i. No. 1. Page 35. Describing the **Hinton** Receiver and Interference Preventer.
  504. Article in *Modern Wireless*. Volume ii. No. 1. Page xiv. Entitled - Reduction of Interference."
  505. **Autoveyors Co.** Three electrode Variable Condenser. British patent No. 17703. 1922.
  506. **H. J. Round.** " Elimination of Atmospherics." British patent No. 27480 of 1913.
  507. **H. J. Round.** " Reducing Interference from Atmospherics." British patent No. 20441 of 1910.
  508. " Some Notes on the Balanced Crystal Receiver." *The Wireless World*. Volume v. Page 168. 1917.
  509. **L. W. Austin.** " A Crystal Contact Disturbance Preventer." *The Electrician*. Volume lxxii. Page 176. 1913..
  510. **J. P. Pragnell.** " A Five-electrode Valve." *The Wireless World*. Volume x. Page 377. 1922.
  511. **Edgar H. Felix.** " A Further Development of the Armstrong Circuit." *The Wireless World*. Volume x. Page 503. 1922.
- 
972. **Western Electric Co.** "Multiplex Signalling." British patent No. 146988.
  973. **E. P. Huth.** " Multiplex Reception from a Frame Aerial." British patent No. 148824 of April 26th, 1919.
  974. **British Thomson Houston Co. (G.E.C.).** " Duplex Wireless Signalling." British patent No. 150798 of June 5th, 1919.
  975. **W. J. Mellersh-Jackson.** " Duplex Wireless." Patent No. 9285 of April 14th, 1914.
  976. **T. W. Case.** " Signalling by Light and Heat Radiations." British patents Nos. 132341 of September 10th, 1918, and 145169 of March 31st, 1919.
  977. **W. J. Lyons.** " A Harmionic Fluid Jet Device Controlled by Tuning Fork or Reed." British patent No. 117090 of March 10th, 1907.
  978. **W. H. Bragg and A. O. Rankine.** " Photophone." British patent No. 124805 of April 11th, 1916.
  979. **J. Hettinger.** " Ionized Beam Conductors for Telegraphy and Telephony, and Distant Control of Apparatus." British patent No. 124833 of May 2nd, 1916.
  980. **Western Electric Co. (J. R. Carson).** „Quiescent Aerial and Sideband System." British patent No. 102503 of December 1st, 1915. (Convention date, U.S.)
  981. **Western Electric Co.** " Addition to Patent 102503 of 1915." (In which a radio-frequency wave Q is modulated by an audiofrequency wave P to produce a resultant wave having three components Q, Q+P, and Q-P. The radiation of component Q is prevented and signalling effected by Q+P or Q-P or both. Component Q is reintroduced by a local generator at the receiving station. Full diagrams are given.) British patent No. 111649 of September 12th, 1917. Also 142371 of July 29th, 1919, and 146881 of December 1st, 1915.
  982. **Western Electric Co.** Filter Circuits for Filtering Out Certain Frequencies." British patent No. 135635 of December 6th, 1918. Also 142115 of July 15th, 1915.
  983. **Naamlooze Vennootschap de Nederlandsche.** " Thermo Telefoon Maatschappij." (A Thermic Telephone.) British patent No. 118600 of July 12th, 1917.
  984. **J. S. E. Townsend.** " Thermal Wave Detector." British patent No. 130429 of February 23rd, 1918.
  985. **A. A. Hall.** " A Ground Wire Aerial System." British patent No. 142886 of November 18th, 1918.
  986. **Marconi's Wireless Telegraph Co. .** " Method of Producing Oscillations with a Five-electrode Valve." British patent No. 145040 of June 14th, 1919.
  987. **Lee de Forest.** " A System of Leakage Signalling with Alternating Currents." British patent No. 145476 of June 16th, 1917.

988. **Lee de Forest.** " Use of Metallic Sheaths of Submarine Cables for Wired Wireless." British patent No. 146491 of April 17th, 1919.
989. **Radio Corporation of America** (R. A. Weagant). " Aerial Provided with Coils Spaced Apart to Reduce Interference." British patent No. 146528 of January 6th, 1916.
990. **Radio Corporation of America** (R. A. Weagant). " Three-electrode Valve with External Sheath Acting as Grid. British patents Nos. 146530 of April 5th, 1915 ; 146533 of April 2nd, 1915 ; and 146534 of February 25th, 1915.
991. **Radio Corporation of America** (R. A. Weagant). Valve with Connection to centre of Filament." British patents Nos. 146536 of February 1st, 1916, and 146540 of February 1st, 1916 (void).
992. **P. P. Eckersley.** " Quiescent Aerial Radio Telephony." British patent No. 146610 of April 10th, 1919.
993. **J. Scott-Taggart.** " Valve Fitted with Two Plates." British patent No. 146708 of June 20th, 1919.
994. **Johnsen and Rahbek.** " Electro-static Variation of Friction Applied to Wireless." British patents Nos. 144761 and 146747 of 1919.
995. **Siemens and Halske.** " Leakage Signalling to Direct Ships." British patents Nos. 146960 of January 26th, 1916, and 146962 of December 9th, 1918.
996. **British Thomson Houston Co.** (E. F. W. Alexanderson). " Sixelectrode Valve." British patent No. 147147 of October 29th, 1913.
997. **M. C. A. Latour.** " Glow Lamp Detector." British patent No. 148951 of October 21st, 1916.
998. **Marconi's Wireless Telegraphy Co.** (A. N. Goldsmith). " Varying Mutual Inductance Method of C.W. Reception." British patent No. 149282 of July 28th, 1919.
999. **Marconi's Wireless Telegraphy Co.** (A. N. Goldsmith). " Method of Varying Mutual Inductance with Metal Shields." British patent No. 149283 of July 31st, 1919 (void).
1000. **Metropolitan-Vickers Electrical Co.** (Q. A. Brackett). " Five-electrode Valve with Two-electron Streams." British patent No. 149349 of August 5th, 1919.
1001. **J. Scott-Taggart.** " Methods of Valve Amplification." British patent No. 152693 of July 25th, 1919.
1002. " The Origin of *S.O.S.*" *Modern Wireless*. Volume iii. Page 310. August 1924.
1003. **Lee de Forest.** " Five-electrode Valve with Two Grids and Two Plates for Generating Oscillations." British patent No. 100358 of April 24th, 1915.
1004. **L. Latour.** " One or More Stages of H.F. Amplification, followed by Detection, followed by One or More Stages of Note Magnification." British patent No. 130012 of November 30th, 1916. (Additional to 130103 and 129660.)
1005. **J. Scott-Taggart.** " Reflex Wireless Receivers in Theory and Practice." *Modern Wireless*. Volume iii. Pages 287 to 293. August 1924.
1006. **G. O. Squier.** " Wired Wireless." British patents Nos. 30003 of 1919 15718 of 1911 ; and 3191 of February 6th, 1914.
1007. **L. A. Charbonneau.** " Signalling by Infra-red Rays and Zinc Sulphide Screens." British patent No. 146138 of February 11th, 1918 (void).
1008. **J. Scott-Taggart.** " Four-electrode Valve Having Two Grids." British patent No. 153681 of 1919.
1009. **J. A. Fleming.** " Four-electrode Valve." British patent No. 149422 of 1919. Also 24850 of 1904.
1010. **E. K. Sandeman.** " The Electro-static Transmitter." *The Wireless World*. Volume xiii. Page 785. 1924.
1011. **P. O. Pedersen.** " Method of Restricting the Outward Travelling of an Arc." British patent No. 136762 of March 4th, 1919.
1012. **Graf G. von Arco and A. Meissner.** " Feed-back Method of Amplification." British patent No. 252 of January 5th, 1914.
1013. **W. B. Arwin.** " Dr. Lee de Forest and Reaction Patents." *Wireless Weekly*. Volume iv. Pages 168 to 170. June 11th, 1924.
1014. **W. D. Coolidge.** " Claiming Use of Thoria and Other Refractory Oxides Mixed with Tungsten Powder in Process of Manufacturing Filaments." British patent No. 18467 of 1911

1015. **I. Langmuir.** "Preparation of Filaments to Obtain Increased Electron Emission." U.S. patents Nos. 1244216 of 1914 and 1244217 of 1914.

1016. *Philosophical Magazine.* 1015. Volume x. Page 88.

1017. **M. Thompson and A. C. Bartlett.** "Thermionic Valves with Dull Emitter Filaments." Paper read before the Wireless Section of the Inst. of Elect. Eng. on April 2nd, 1924. See *The Journal of the I.E.E.* Volume lxii. Pages 689 to 700. August 1924.

1018. **E. A. Graham and W. J. Rickets.** "Impedance-coupled Power Amplifier." British patent No. 218066 of 1924.

1019. See *The Proc. of the Royal Society* for July 1899.

1020. **P. P. Eckersley.** "Broadcasting Microphones." *The Electrician.* Volume xcii. Page 35, January 11th, 1924.

1021. **G. G. Blake.** "The Effective Range of Crystal Receivers." *The Electrical Review.* Volume xcv. Pages 348 to 349. September 5th, 1924.

1022. **S. P. Henderson.** "Aurorae and Atmospherics in Wireless Telegraphy." *The Journal of the Royal Astro. Society of Canada.* Volume xvii. Pages 374 to 378. November and December, 1923.

1023. **L. W. Austin.** "Receiving Measurements and Atmospheric Disturbances at Bureau of Standards, Washington, D.C." (May and June 1923.) *The Proc. of the Inst. of Radio Eng.* Volume xi. Pages 579 to 583. December 1923.

1024. **S. R. Winters.** "An Account of Dr. J. Harris Rogers' Experiments with Buried Aerials." *Radio News.* Volume v. Pages 1733 and 1839. June 1924.

1025. **I. Podliasky.** "Crystal Detectors as Oscillators." (Characteristic curves of zincite carbon and zincite steel combinations show that under suitable conditions negative resistance action is obtained.) *Radioelectricite.* Volume v. Pages 196 to 197. May 25th, 1924. Also *Science Abstracts.* Section B. Volume xxvii. Part 8. No. 1139. 1924.

1026. **J. E. P. Wagstaff.** "The Effect of an Electric Current on the Motion of Mercury Globules in Dilute Sulphuric Acid and its Bearing on the Problem of the Electrolytic Double Layer." *Phil. Mag.* Volume xlvii. Pages 802 to 815. May 1924.

1027. **Nikola Tesla.** "Use of Rotary Spark Gap and Employment of Chokes, etc." British patent No. 20981 of 1896.