

Cambridge University Press

978-1-108-01404-5 - A Treatise on Electricity and Magnetism, Volume 2

James Clerk Maxwell

Index

[More information](#)

INDEX.

The References are to the Articles.

- ABERRATION of light, 78.
 Absorption, electric, 53, 227, 329.
 — of light, 798.
 Accumulators or condensers, 50, 226–228.
 Action at a distance, 105, 641–646, 846–866.
 Ayclic region, 19, 113.
 Æther, 782 *n*.
 Airy, Sir G. B., 454, 830.
 Ampère, André Marie, 482, 502–528, 638, 687, 833, 846.
 Anion, 237.
 Anode, 237.
 Arago's disk, 668, 669.
 Astatic balance, 504.
 Atmospheric electricity, 221.
 Attraction, electric, 27, 38, 103.
 — explained by stress in a medium, 105.
- Barclay and Gibson, 229, 789.
 Battery, voltaic, 232.
 Beetz, W., 255, 265, 442.
 Betti, E., 173, 864.
 Bifilar suspension, 459.
 Bismuth, 425.
 Borda, J. C., 3.
 Bowl, spherical, 176–181.
 Bridge, Wheatstone's*, 347, 756, 775, 778.
 — electrostatic, 353.
 Bright, Sir C., and Clark, 354, 367.
 Brodie, Sir B. C., 359.
 Broun, John Allan, 462.
 Brush, 56.
 Buff, Heinrich, 271, 368.
- Capacity (electrostatic), 50, 226.
 — of a condenser, 50, 87, 102, 196, 227–229, 771, 774–780.
- Capacity, calculation of, 102, 196.
 — measurement of, 227–229.
 — in electromagnetic measure, 774, 775.
 Capacity (electromagnetic) of a coil, 706, 756, 778, 779.
 Cathode, 237.
 Cation, 237.
 Cauchy, A. L., 827.
 Cavendish, Henry, 38.
 Cayley, A., 553.
 Centrobatic, 101.
 Circuits, electric, 578–584.
 Circular currents, 694–706.
 — solid angle subtended by, 695.
 Charge, electric, 31.
 Clark, Latimer, 358, 629, 725.
 Classification of electrical quantities, 620–629.
 Clausius, R., 70, 256, 863.
 Clifford, W. K., 138.
 Coefficients of electrostatic capacity and induction, 87, 102.
 — of potential, 87.
 — of resistance and conductivity, 297, 298.
 — of induced magnetization, 426.
 — of electromagnetic induction, 755.
 — of self-induction, 756, 757.
 Coercive force, 424, 444.
 Coils, resistance, 335–344.
 — electromagnetic, 694–706.
 — measurement of, 708.
 — comparison of, 752–757.
 Comparison of capacities, 229.
 — of coils, 752–757.
 — of electromotive forces, 358.
 — of resistances, 345–358.
 Concentration, 26, 77.
 Condenser, 50, 226–228.

* Sir Charles Wheatstone, in his paper on 'New Instruments and Processes,' *Phil. Trans.*, 1843, brought this arrangement into public notice, with due acknowledgment of the original inventor, Mr. S. Hunter Christie, who had described it in his paper on 'Induced Currents,' *Phil. Trans.*, 1833, under the name of a Differential Arrangement. See the remarks of Mr. Latimer Clark in the *Society of Telegraph Engineers*, May 8, 1872.

Cambridge University Press

978-1-108-01404-5 - A Treatise on Electricity and Magnetism, Volume 2

James Clerk Maxwell

Index

[More information](#)

440

INDEX.

- Condenser, capacity of, 50, 87, 102, 196,
 227-229, 771, 774-780.
 Conduction, 29, 241-254.
 Conduction, linear, 273-284.
 — superficial, 294.
 — in solids, 285-334.
 — electrolytic, 255-265.
 — in dielectrics, 325-334.
 Conductivity, equations of, 298, 609.
 — and opacity, 798.
 Conductor, 29, 80, 86.
 Conductors, systems of electrified, 84-94.
 Confocal quadric surfaces, 147-154, 192.
 Conjugate circuits, 538, 759.
 — conductors, 282, 347.
 — functions, 182-206.
 — harmonics, 138.
 Constants, principal, of a coil, 700, 753,
 754.
 Conservation of energy, 92, 242, 262, 543.
 Contact force, 246.
 Continuity in time and space, 7.
 — equation of, 36, 295.
 Convection, 55, 238, 248.
 Convergence, 25.
 Copper, 51, 360, 362, 761.
 Cotes, Roger, 865.
 Coulomb, C. A., 38, 74, 215, 223, 373.
 Coulomb's law, 79, 80.
 Crystal, conduction in, 297.
 — magnetic properties of, 435, 436, 438.
 — propagation of light in a, 794-797.
 Cummings, James, 252.
 Curl, 25.
 Current, electric, 230.
 — best method of applying, 744.
 — -function, { 294, 647-681.
 — sheet, {
 — induced, 532.
 — steady, 232.
 — thermoelectric, 249-254.
 — transient, 232, 530, 536, 537, 582,
 748, 758, 760, 771, 776.
 Current-weigher, 726.
 Cyclic region, 18, 113, 481.
 Cylinder, electrification of, 189.
 — magnetization of, 436, 438, 439.
 — currents in, 682-690.
 Cylindric coils, 676-681.

 Damped vibrations, 732-742, 762.
 Damper, 730.
 Daniell's cell, 232, 272.
 Dead beat galvanometer, 741.
 Decrement, logarithmic, 736.
 Deflexion, 453, 743.
 Delambre, J. B. J., 3.
 Dellmann, F., 221.
 Density, electric, 64.
 — of a current, 285.
 — measurement of, 223.
 Diamagnetism, 429, 440, 838.
 Dielectric, 52, 109, 111, 229, 325-334,
 366-370, 784.
 Diffusion of magnetic force, 801.
 Dip, 461.
 Dipolar, 173, 381.
 Dimensions, 2, 42, 87, 278, 620-629.
 Directed quantities (or vectors), 10.
 Directrix, 517.
 Discharge, 55.
 Discontinuity, 8.
 Disk, 177.
 — Arago's, 668, 669.
 Displacement, electric, 60, 75, 76, 111,
 328-334, 608, 783, 791.
 Dygogram, 441.

 Earnshaw, S., 116.
 Earth, magnetism of, 465-474.
 Electric brush, 56.
 — charge, 31.
 — conduction, 29.
 — convection, 211, 238, 248, 255, 259.
 — current, 230.
 — discharge, 55-57.
 — displacement, 60, 75, 76, 111, 328-
 324, 608, 783, 791.
 — energy, 85.
 — glow, 55.
 — induction, 28.
 — machine, 207.
 — potential, 70.
 — spark, 57.
 — tension, 48, 59, 107, 108, 111.
 — wind, 55.
 Electrode, 237.
 Electrodynamical system of measurement,
 526.
 Electrodynamometer, 725.
 Electrolysis, 236, 255-272.
 Electrolyte, 237, 255.
 Electrolytic conduction, 255-272, 363,
 799.
 — polarization, 257, 264-272.
 Electromagnetic force, 475, 580, 583.
 — measurement, 495.
 — momentum, 585.
 — observations, 730-780.
 — and electrostatic units compared, 768-
 780.
 — rotation, 491.
 Electromagnetism, dynamical theory of,
 568-577.
 Electrometers, 214-220.
 Electromotive force, 49, 69, 111, 241,
 246-254, 358, 569, 579.
 Electrophorus, 208.
 Electroscope, 33, 214.
 Electrostatic measurements, 214-229.
 — polarization, 59, 111.
 — attraction, 103-111.
 — system of units, 620, &c.
 Electrotonic state, 540.
 Elongation, 734.
 Ellipsoid, 150, 302, 437, 439.
 Elliptic integrals, 149, 437, 701.
 Energy, 6, 85, 630-638, 782, 792.

Cambridge University Press

978-1-108-01404-5 - A Treatise on Electricity and Magnetism, Volume 2

James Clerk Maxwell

Index

[More information](#)

INDEX.

441

- Equations of conductivity, 298, 609.
 — of continuity, 35.
 — of electric currents, 607.
 — of total currents, 610.
 — of electromagnetic force, 603.
 — of electromotive force, 598.
 — of Laplace, 77.
 — of magnetization, 400, 605.
 — of magnetic induction, 591.
 — of Poisson, 77.
 — of resistance, 297.
 Equilibrium, points of, 112–117.
- False magnetic poles, 468.
 Faraday, M., his discoveries, 52, 55, 236, 255, 530, 531, 534, 546, 668, 806.
 — his experiments, 28, 429, 530, 668.
 — his methods, 37, 82, 122, 493, 528, 529, 541, 592, 594, 604.
 — his speculations, 54, 60, 83, 107, 109, 245, 429, 502, 540, 547, 569, 645, 782.
 Farad, 629.
 Fechner, G. T., 231, 274, 848.
 Felici, R., 536–539, 669.
 Ferromagnetic, 425, 429, 844.
 Field, electric, 44.
 — electromagnetic, 585–619.
 — of uniform force, 672.
 First swing, 745.
 Fizeau, H. L., 787.
 Fluid, electric, 36, 37.
 — incompressible, 61, 111, 295, 329, 334.
 — magnetic, 380.
 Flux, 12.
 Force, electromagnetic, 475, 580, 583.
 — electromotive, 49, 69, 111, 233, 241, 246–254, 358, 569, 579, 595, 598.
 — mechanical, 92, 93, 103–111, 174, 580, 602.
 — measurement of, 6.
 — acting at a distance, 105.
 — lines of, 82, 117–123, 404.
 Foucault, L., 787.
 Fourier, J. B. J., 2*n*, 243, 332, 333, 801–805.
- Galvanometer, 240, 707.
 — differential, 346.
 — sensitive, 717.
 — standard, 708.
 — observation of, 742–751.
 Gases, electric discharge in, 55–77, 370.
 — resistance of, 369.
 Gassiot, J. P., 57.
 Gauguin, J. M., 366, 712.
 Gauge electrometer, 218.
 Gauss, C. F., 18, 70, 131, 140, 144, 409, 421, 454, 459, 470, 706, 733, 744, 851.
 Geometric mean distance, 691–693.
 Geometry of position, 421.
 Gibson and Barclay, 229, 789.
 Gladstone, Dr. J. H., 789.
 Glass, 51, 271, 368.
- Glow, electric, 55.
 Grassmann, H., 526, 687.
 Grating, electric effect of, 203.
 Green, George, 70, 89, 318, 439.
 Green's function, 88, 101.
 — theorem, 100.
 Groove, electric effect of, 199.
 Grove, Sir W. R., 272, 779.
 Guard-ring, 201, 217, 228.
 Gutta-percha, 51, 367.
- Hamilton, Sir W. Rowan, 10, 561.
 Hard iron, 424, 444.
 Harris, Sir W. Snow, 38, 216.
 Heat, conduction of, 801.
 — generated by the current, 242, 283, 299.
 — specific, of electricity, 253.
 Helix, 813.
 Helmholtz, H., 88, 100, 202, 421, 543, 713, 823, 854.
 Heterostatic electrometers, 218.
 Hockin, Charles, 352, 360, 800.
 Holtz, W., electrical machine, 212.
 Hornstein, Karl, 471 *n*.
 Huygens, Christian, 782.
 Hydraulic ram, 550.
 Hyposine, 151.
- Idiostatic electrometers, 218.
 Images, electric, 119, 155–181, 189.
 — magnetic, 318.
 — moving, 662.
 Imaginary magnetic matter, 380.
 Induced currents, 528–552.
 — in a plane sheet, 656–669.
 — Weber's theory of, 856.
 Induced magnetization, 424–448.
 Induction, electrostatic, 28, 75, 76, 111.
 — magnetic, 400.
 Inertia, electric, 550.
 — moments and products of, 565.
 Insulators, 29.
 Inversion, electric, 162–181, 188, 316.
 Ion, 237, 255.
 Iron, 424.
 — perchloride of, 809.
 Irreconcilable curves, 20, 421.
- Jacobi, M. H., 336.
 Jenkins, William, 546. See *Phil. Mag.*, 1834, pt. ii, p. 351.
 Jenkin, Fleming, 763, 774.
 Jochmann, E., 669.
 Joule, J. P., 242, 262, 448, 457, 463, 726, 767.
- 'Keystone of electrodynamics,' 861.
 Kinetics, 553–565.
 Kirchhoff, Gustav, 282, 316, 439, 758.
 Kohlrausch, Rudolph, 265, 365, 723, 771.

Cambridge University Press

978-1-108-01404-5 - A Treatise on Electricity and Magnetism, Volume 2

James Clerk Maxwell

Index

[More information](#)

442

INDEX.

- Lagrange's (J. L.) dynamical equations, 553-565.
 Lamé, G., 17, 147.
 Lamellar magnet, 412.
 Laplace, P. S., 70.
 Laplace's coefficients, 128-146.
 — equation, 26, 77, 144, 301.
 — expansion, 140.
 Leibnitz, G. W., 18, 424.
 Lenz, E., 265, 530, 542.
 Light, electromagnetic theory of, 781-805.
 — and magnetism, 806-831.
 Line-density, 64, 81.
 — integral, 16-20.
 — of electric force, 69, 622.
 — of magnetic force, 401, 481, 498, 499, 590, 606, 607, 622.
 Lines of equilibrium, 112.
 — of flow, 22, 293.
 — of electric induction, 82, 117-123.
 — of magnetic induction, 404, 489, 529, 541, 597, 702.
 Linnæus, C., 23.
 Liouville, J., 173, 176.
 Listing, J. B., 18, 23, 421.
 Lorenz, L., 805 *n*.
 Loschmidt, J., 5.

 Magnecrystallic phenomena, 425, 435, 839.
 Magnet, its properties, 371.
 — direction of axis, 372-390.
 — magnetic moment of, 384, 390.
 — centre and principal axes, 392.
 — potential energy of, 389.
 Magnetic action of light, 806.
 — disturbances, 473.
 — force, law of, 374.
 — — direction of, 372, 452.
 — — intensity of, 453.
 — induction, 400.
 Magnetic 'matter,' 380.
 — measurements, 449-464.
 — poles, 468.
 — survey, 466.
 — variations, 472.
 Magnetism of ships, 441.
 — terrestrial, 465-474.
 Magnetization, components of, 384.
 — induced, 424-430.
 — Ampère's theory of, 638, 833.
 — Poisson's theory of, 429.
 — Weber's theory of, 442, 838.
 Magnus' (G.) law, 251.
 Mance's, Henry, method, 357.
 Matthiessen, Aug., 352, 360.
 Measurement, theory of, 1.
 — of result of electric force, 38.
 — of electrostatic capacity, 226-229.
 — of electromotive force or potential, 216, 358.
 — of resistance, 335-357.
 — of constant currents, 746.
 — of transient currents, 748.

 Measurement of coils, 708, 752-757.
 — magnetic, 449-464.
 Medium, electromagnetic, 866.
 — luminiferous, 806.
 Mercury, resistance of, 361.
 Metals, resistance of, 363.
 Michell, John, 38.
 Miller, W. H., 23.
 Mirror method, 450.
 Molecular charge of electricity, 259.
 — currents, 833.
 — standards, 5.
 — vortices, 822.
 Molecules, size of, 5.
 — electric, 260.
 — magnetic, 430, 832-845.
 Moment, magnetic, 384.
 — of inertia, 565.
 Momentum, 6.
 — electrokinetic, 578, 585.
 Mossotti, O. F., 62.
 Motion, equations of, 553-565.
 Moving axes, 600.
 — conductors, 602.
 — images, 662.
 Multiple conductors, 276, 344.
 — functions, 9.
 Multiplication, method of, 747, 751.

 Neumann, F. E., coefficient of magnetization, 430.
 — magnetization of ellipsoid, 439.
 — theory of induced currents, 542.
 Neumann, C. G., 190, 830, 863.
 Nicholson's Revolving Doubler, 209.
 Nickel, 425.
 Null methods, 214, 346, 503.

 Ørsted, H. C., 239, 475.
 Ohm, G. S., 241, 333.
 Ohm's Law, 241.
 Ohm, the, 338, 340, 629.
 Opacity, 798.
 Ovary ellipsoid, 152.

 Paalzow, A., 364.
 Paraboloids, confocal, 154.
 Paramagnetic (same as Ferromagnetic), 425, 429, 844.
 Peltier, A., 249.
 Periodic functions, 9.
 Periphractic region, 22, 113.
 Permeability, magnetic, 428, 614.
 Phillips, S. E., 342.
 Plan of this Treatise, 59.
 Plane current-sheet, 656-669.
 Planetary ellipsoid, 151.
 Platymeter, electro-, 229.
 Plücker, Julius, 839.
 Points of equilibrium, 112.
 Poisson, S. D., 155, 431, 437, 674.
 Poisson's equation, 77, 148.

Cambridge University Press

978-1-108-01404-5 - A Treatise on Electricity and Magnetism, Volume 2

James Clerk Maxwell

Index

[More information](#)

I N D E X.

443

- Poisson's theory of magnetism, 427, 429, 431, 441, 832.
 — theory of wave-propagation, 784.
 Polar definition of magnetic force, 398.
 Polarity, 381.
 Polarization, electrostatic, 59, 111.
 — electrolytic, 257, 264–272.
 — magnetic, 381.
 — of light, 381, 791.
 — circular, 813,
 Poles of a magnet, 373.
 — magnetic of the earth, 468.
 Positive and negative, conventions about, 23, 27, 36, 37, 63, 68–81, 231, 374, 394, 417, 489, 498.
 Potential, 16.
 — electric, 45, 70, 220.
 — magnetic, 383, 391.
 — of magnetization, 412.
 — of two circuits, 423.
 — of two circles, 698.
 Potential, vector-, 405, 422, 590, 617, 657.
 Principal axes, 299, 302.
 Problems, electrostatic, 155–205.
 — electrokinematic, 306–333.
 — magnetic, 431–441.
 — electromagnetic, 647–706.
 Proof of the law of the Inverse Square, 74.
 Proof plane, 223.

 Quadrant electrometer, 219.
 Quadric surfaces, 147–154.
 Quantity, expression for a physical, 1.
 Quantities, classification of electromag-
 netic, 620–629.
 Quaternions, 11, 303, 490, 522, 618.
 Quinke, G., 316 *n*.

 Radiation, forces concerned in, 792.
 Rankine, W. J. M., 115, 831.
 Ray of electromagnetic disturbance, 791.
 Reciprocal properties, electrostatic, 88.
 — electrokinematic, 281, 348.
 — magnetic, 421, 423.
 — electromagnetic, 536.
 — kinetic, 565.
 Recoil, method of, 750.
 Residual charge, 327–334.
 — magnetization, 444.
 Replenisher, 210.
 Resistance of conductors, 51, 275.
 — tables of, 362–365.
 — equations of, 297.
 — unit of, 758–767.
 — electrostatic measure of, 355, 780.
 Resultant electric force at a point, 68.
 Riemann, Bernhard, 421, 862.
 Right and left-handed systems of axes, 23, 498, 501.
 — circularly-polarized rays, 813.
 Ritchie, W., 542.

 Ritter's (J. W.) Secondary Pile, 271.
 Rotation of plane of polarization, 806.
 — magnetism, a phenomenon of, 821.
 Rühlmann, R., 370.
 Rule of electromagnetic direction, 477, 494, 496.

 Scalar, 11.
 Scale for mirror observations, 450.
 Sectorial harmonic, 132, 138.
 Seebeck, T. J., 250.
 Selenium, 51, 362.
 Self-induction, 7.
 — measurement of, 756, 778, 779.
 — coil of maximum, 706.
 Sensitive galvanometer, 717.
 Series of observations, 746, 750.
 Shell, magnetic, 409, 484, 485, 606, 652, 670, 694, 696.
 Siemens, C. W., 336, 361.
 Sines, method of, 455, 710.
 Singular points, 128.
 Slope, 17.
 Smee, A., 272.
 Smith, Archibald, 441.
 Smith, W. R., 123, 316.
 Soap bubble, 125.
 Solenoid, magnetic, 407.
 — electromagnetic, 676–681, 727.
 Solenoidal distribution, 21, 82, 407.
 Solid angle, 409, 417–422, 485, 695.
 Space-variation, 17, 71, 835.
 Spark, 57, 370.
 Specific inductive capacity, 52, 83, 94, 111, 229, 325, 334, 627, 788.
 — conductivity, 278, 627.
 — resistance, 277, 627.
 — heat of electricity, 253.
 Sphere, 125.
 Spherical harmonics, 128–146, 391, 431.
 Spiral, logarithmic, 731.
 Standard electrometer, 217.
 — galvanometer, 708.
 Stokes, G. G., 24, 115, 784.
 Stoney, G. J., 5.
 Stratified conductors, 319.
 Stress, electrostatic, 107, 111.
 — electrokinetic, 641, 645, 646.
 Strutt, Hon. J. W., 102, 306.
 Surface-integral, 15, 21, 75, 402.
 — density, 64, 78, 223.
 Surface, equipotential, 46.
 — electrified, 78.
 Suspended coil, 721–729.
 Suspension, bifilar, 459.
 — Joule's, 463.
 — Thomson's, 721.
 — unifilar, 449.

 Tables of coefficients of a coil, 700.
 — of dimensions, 621–629.
 — of electromotive force, 358.
 — of magnetic rotation, 830.

Cambridge University Press

978-1-108-01404-5 - A Treatise on Electricity and Magnetism, Volume 2

James Clerk Maxwell

Index

[More information](#)

444

INDEX.

- Tables for magnetization of a cylinder, 439.
 — of resistance, 363–365.
 — of velocity of light and of electromagnetic disturbance, 787.
 — of temporary and residual magnetization, 445.
 Tait, P. G., 25, 254, 387, 522, 687, 731.
 Tangent galvanometer, 710.
 Tangents, method of, 454, 710.
 Telegraph cable, 332, 689.
 Temporary magnetization, 444.
 Tension, electrostatic, 48, 59, 107, 108.
 — electromagnetic, 645, 646.
 Terrestrial magnetism, 465–474.
 Thälén, Tobias Robert, 430.
 Theorem, Green's, 100.
 — Earnshaw's, 116.
 — Coulomb's, 80.
 — Thomson's, 98.
 — Gauss', 144, 409.
 Theory of one fluid, 37.
 — of two fluids, 36.
 — of magnetic matter, 380.
 — of magnetic molecules, 430, 832–845.
 — of molecular currents, 833.
 — of molecular vortices, 822.
 — of action at a distance, 105, 641–646, 846–866.
 Thermo-electric currents, 249–254.
 Thickness of galvanometer wire, 716, 719.
 Thomson, Sir William,
 — electric images, 43, 121, 155–181, 173.
 — experiments, 51, 57, 248, 369, 772.
 — instruments, 127, 201, 210, 211, 216–222, 272, 722, 724.
 — magnetism, 318, 398, 400, 407–416, 428.
 — resistance, 338, 351, 356, 763.
 — thermo-electricity, 207, 242, 249, 252, 253.
 — theorems, 98, 138, 263, 299, 304, 652.
 — theory of electricity, 27, 37, 543, 831, 856.
 — vortex motion, 20, 100, 487, 702.
 Thomson and Tait's Natural Philosophy, 132, 141, 144, 162, 303, 553, 676.
 Time, periodic of vibration, 456, 738.
 Time-integral, 541, 558.
 Torricelli, Evangelista, 866.
 Torsion-balance, 38, 215, 373, 726.
 Transient currents, 232, 530, 536, 537, 582, 748, 758, 760, 771, 776.
 Units of physical quantities, 2.
 — three fundamental, 3.
 — derived, 6.
 — electrostatic, 41, 625.
 — magnetic, 374, 625.
 — electrodynamic, 526.
 — electromagnetic, 526, 620.
 — classification of, 620–629.
 — practical, 629.
 — of resistance, 758–767.
 — ratios of the two systems, 768–780.
 Variation of magnetic elements, 472.
 Varley, C. F., 210, 271, 332, 369.
 Vector, 10.
 Vector-potential, 405, 422, 590, 617, 657.
 Velocity represented by the unit of resistance, 338, 628, 758.
 — by the ratio of electric units, 768–780.
 — of electromagnetic disturbance, 784.
 — of light, 787.
 — of the electric current, 569.
 Verdet, M. E., 809, 830.
 Vibration, time of, 456, 738.
 Volt, 629.
 Volta, A., 246.
 Voltmeter, 237.
 Vortices, molecular, 822–831.
 Water, resistance of, 365.
 Wave-propagation, 784, 785.
 Weber, W., 231, 338, 346.
 — electro-dynamometer, 725.
 — induced magnetism, 442–448, 838.
 — unit of resistance, 760–762.
 — ratio of electric units, 227, 771.
 — electrodynamic formula, 846–861.
 Wertheim, W., 447.
 Wheatstone's Bridge, 347.
 — electrostatic, 353, 756, 775, 778.
 Whewell, W., 237.
 Wiedemann, G., 236, 370, 446, 447.
 Wind, electric, 55.
 Wippe, 775.
 Work, 6.
 Zero reading, 735.
 Zonal harmonic, 132.