INDEX TO VOL. XLIX.

ABNEY (W. de W.) on the examination for colour of cases of tobacco scotoma, and of abnomal colour blindness, 491.
— on the limit of visibility of the different rays of the spectrum. Preliminary note, 509.
— the numerical registration of colour. Preliminary note, 227.
Adiabatic relations of ethyl oxide, an attempt to determine the. Part I. Gaseous ether (Ramsay and Pernan), 447.
Albumin and other proteids, a new test for (MacWilliam), 369.
Aloce (A.) and J. Wood-Mason, on the uterine villiform papillae of Pteroplagia minor, and their relation to the embryo, being natural history notes from H.M. Indian Marine Survey steamer “Investigator,” No. XXII, 359.
Alizarin-blue and cœrulin as sensitisers for rays of low refrangibility, on the bisulphite compounds of (Higgs), 345.
Alloys, note on a graphical representation of the results of Dr. Alder Wright’s experiments on ternary (Stokes), 174.
— on certain ternary. Part III (Wright and Thompson), 156.
— Part IV (Wright, Thompson, and Leon), 174.
Ameboid protoplasm, on the structure of, with a comparison between the nature of the contractile process in amasroid cells and in muscular tissue, and a suggestion regarding the mechanism of ciliary action (Scharer), 193.
Anaesthetic action of pure nitrogen, on the physiology of asphyxia, and on the (Johnson), 144.
Anderson (William) elected, 491.
Andrews (T.) the passive state of iron and steel. Part II, 120.
— Part III, 481.
Annelid, preliminary notice of a new form of excretory organs in an oligochaetous (Beddard), 308.
Asphyxia, on the physiology of, and on the anaesthetic action of pure nitrogen (Johnson), 144.
Ayrton (W. E.) and W. E. Sumpner, the measurement of the power given by any electric current to any circuit, 424.
Bacillus of tubercle, on certain conditions that modify the virulence of the (Ransome), 66.
Bacteriology of sewage, contributions to the chemical (Lunt and Roscoe), 455.
Bakerian lecture (Darwin), 130.
Basset (A. B.) on the reflection and refraction of light at the surface of a magnetised medium, 76.
Beddard (F. E.) preliminary notice of a new form of excretory organs in an oligochaetous annelid, 308.
Bismuth, further contributions to the metallurgy of (Matthey), 78.
— zinc, and tin, alloys of, and of bismuth, zinc, and silver (Wright and Thompson), 156.
Bisulphite compounds of alizarin-blue and cœrulin as sensitisers for rays of low refrangibility, on the (Higgs), 345.
Blood pressure, the action of the paraffinic nitrates on (Cash and Dunstan), 314.
Boiling point of sulphur, on a determination of the, and on a method of standardising platinum resistance thermometers by reference to it (Callendar and Griffiths), 56.
Bower (Frederick Orpen) elected, 491.
Bremund (W.) photometric observations of the sun and sky, 4, 255.
Bridge method in its application to periodic electric currents, on the sensntiveness of the (Rayleigh), 203.
Brunton (T. L.) and J. T. Cash, contributions to the study of the connexion between chemical constitution and physiological action. Part II, 311.
Callendar (H. L.) and E. H. Griffiths, on a determination of the boiling point of sulphur, and on a method of standardising platinum resistance thermometers by reference to it, 50.

Camphors, and camphor acids, on the constitution of the terpenes (Collie), 554.

Candidates for election, list of, 304.

— list of recommended, 491.

Carus-Wilson (C. A.) the rupture of steel by longitudinal stress, 243.

Casey (John) obituary notice of, xxiv.

Cash (J. T.) and T. L. Brunton, contributions to the study of the connexion between chemical constitution and physiological action. Part II, 311.

— and W. R. Dunstan, the physiological action of the paraffin nitrates considered in connexion with their chemical constitution. Part I. The action of the paraffin nitrates on blood pressure, 314.

— Cassie (W.) on the effect of temperature upon the refractive index of certain liquids, 343.

Chemical constitution, the physiological action of the paraffin nitrates considered in connexion with their. Part I. The action of the paraffin nitrates on blood pressure (Cash and Dunstan), 314.

Chemical constitution and physiological action, contributions to the study of the connexion between. Part II (Brunton and Cash), 311.

Chromatin, on the demonstration of the presence of iron in, by micro-chemical methods (Macallum), 488.

Ciliary action, on the structure of ameboid protoplasm, with a comparison between the nature of the contractile process in ameboid cells and in muscular tissue, and a suggestion regarding the mechanism of (Schäfer), 193.

Cloud photography conducted under the Meteorological Council at the Kew Observatory (Strachey and Whipple), 467.

Coal-measures, on the organisation of the fossil plants of the. Part XVIII (Williamson), 154.

Corelin and alizarin-blue as sensitisers for rays of low refrangibility, on the bisulphite compounds of (Higgs), 345.

Collie (J. N.) on the constitution of the terpenes, camphors, and camphor acids, 554.

Colour, the numerical registration of (Abney), 227.

Colour blindness, on the examination for colour of cases of tobacco scotoma, and of abnormal (Abney), 491.

Conroy (Sir John) elected, 491.

Corpus vitreum, on a membrane lining the fossa patellaris of the (Stuart), 137.

Cronian lecture (Gotech and Horsley), 235.

Crystalline lens and the lens capsule, on the connexion between the suspensory ligament of the (Stuart), 141.

Crystals, some measures of Young's modulus for (Mallock), 380.

Cunningham (Daniel John) elected, 491.

Cygnus, on Wolf and Raylet's bright-line stars in (Huggins and Huggins), 33.

Darwin (G. H.) on tidal prediction.— Bakerian lecture, 130.

Dawson (George Mercer) elected, 491.

Delèpine (S.) contribution to the study of the vertebrate liver, 64.

Dentine, some points in the structure and development of (Mummery), 319.

Dewar (J.) and G. D. Liveing, on the influence of pressure on the spectra of flames, 217.

Donders (Frans Cornelis) obituary notice of, vii.

Dunstan (W. R.) and J. T. Cash, the physiological action of the paraffin nitrates considered in connexion with their chemical constitution. Part I. The action of the paraffin nitrates on blood pressure, 314.

Dyer (W. T. T.) note on Dr. Fenton Evans' paper on the pathogenic fungus of malaria, 593.

Electric and magnetic screening, on variational (Thomson), 418.

— current, the measurement of the power given by any, to any circuit (Ayrton and Sumner), 424.

— currents, on the sensitiveness of the bridge method in its application to periodic (Rayleigh), 203.

Electricity, on the rate of propagation of the luminous discharge of, through a rarefied gas, 84.

Electrodynamics, on the theory of (Larmor), 521.

Electrostatic screening by gratings, nets, or perforated sheets of conducting material, on (Thomson), 405.

Elliot (Edwin Bailey) elected, 491.

Ellipsoidal harmonics, on (Niven), 1.

Ellis (Alexander John) obituary notice of, i.
Ethyl oxide, an attempt to determine the adiabatic relations of. Part I. Gaseous ether (Ramsay and Pernan), 447.

Evans (J. F.) on the demonstration by staining of the pathogenic fungus of malaria, its artificial cultivation, and the results of inoculation of the same, 199.
— note on the above (Dyer), 539.

Finger-marks, method of indexing (Galton), 540.

Flames, on the influence of pressure on the spectra of (Liveing and Dewar), 217.

Flesh, on the bases (organic) in the juice of. Part I (Johnson), 538.

Fluid pressure, note on the instability of india-rubber tubes and balloons when distended by (Mallock), 458.

Focusometry of lenses and lens-combinations, on the, and on a new focometer (Thompson), 225.

Fossa patellaris of the corpus vitreum, on a membrane lining the (Stuart), 137.

Fossil plants of the coal-measures, on the organisation of the. Part XVIII (Williamson), 154.
— reptilia, researches on the structure, organisation, and classification of the. VII. Further observations on Pareiasaurus (Seeley), 518.

Frankland (Percy Faraday) elected, 491.

Fungus of malaria, on the demonstration by staining of the pathogenic (Evans), 199.
— — — — — — note on Dr. Fenton Evans’ paper on the pathogenic (Dyer), 539.

Galton (F.) method of indexing finger-marks, 540.

Galvanic-hysteresis, on. Preliminary notice (Thompson), 439.

Gas, on the rate of propagation of the luminous discharge of electricity through a rarefled (Thomson), 84.

Gilchrist (Percy C.) elected, 491.

Gotch (F.) and V. Horsley, on the mammalian nervous system; its functions and their localisation determined by an electrical method.—Croonian lecture, 235.

Griffiths (E. H.) and H. L. Callendar, on a determination of the boiling point of sulphur, and on a method of standardising platinum resistance thermometers by reference to it, 56.

Hannen (Lord) elected, 323.
— — — — — — admitted, 350.

Hartley (W. N.) on the physical characters of the lines in the spark spectra of the elements, 448.

Haycraft (J. B.) on the minute structure of striped muscle, with special reference to a new method of investigation, by means of “impressions” stamped in collodion, 76, 287.

Heat capacity and heat of fusion of some substances to test the validity of Person’s absolute zero, determinations of the (Pickering), 11.

Heaviside (Oliver) elected, 491.

Higgs (G.) on the bisulphite compounds of alizarin-blue and coerulin as sensitisers for rays of low refrangibility, 345.

Horsley (V.) and F. Gotch, on the mammalian nervous system; its functions and their localisation determined by an electrical method.—Croonian lecture, 235.

Huggins (W.) on the chief line in the spectrum of the nebula. A reply, 136.
— — — and Mrs. Huggins, on Wolf and Rayet’s bright-line stars in Cygnus, 33.

Hunter (W.) the influence of oxygen on the formation of ptomaines, 376.

Ice-crystal, on the plasticity of an (McConnel), 323.

India-rubber tubes and balloons, note on the instability of, when distended by fluid pressure (Mallock), 458.

Insects, on the minute structure of the muscle-columns or sarcostyles which form the wing muscles of. Preliminary note (Schäfer), 76, 280.

Iron and steel, the passive state of. Part II (Andrews), 120.
— — — — — — Part III (Andrews), 481.
— — — — — — in chromatin, on the demonstration of the presence of, by micro-chemical methods (Macallum), 488.

Jackson (William Lawies) elected, 136.
— — — — — — admitted, 154.

Johnson (G.) on the physiology of asphyxia, and on the anaesthetic action of pure nitrogen, 144.

Johnson (G. S.) on the bases (organic) in the juice of flesh. Part I, 538.

Keefer (J. E.) on the chief line in the spectrum of the nebula, 399.

Kew Observatory, cloud photography conducted under the Meteorological
INDEX.

Council at the (Strachey and Whipple), 467.

Larmor (J.) on the theory of electrodynamics, 521.
Lenses and lens-combinations, on the focometry of, and on a new focometer (Thompson), 225.
Leon (J. T.), C. R. A. Wright, and C. Thompson, on certain ternary alloys. Part IV. On a method of graphical representation (suggested by Sir G. G. Stokes) of the way in which certain fused mixtures of three metals divide themselves into two different ternary alloys, with further experiments suggested thereby, 174.
Light, on the reflection and refraction of, at the surface of a magnetised medium (Basset), 76.
Limit of visibility of the different rays of the spectrum, on the. Preliminary note (Abney), 509.
Liquids, on the effect of temperature upon the refractive index of certain (Cassie), 343.
Living (G. D.) and J. Dewar, on the influence of pressure on the spectra of flames, 217.
Liver, contribution to the study of the vertebrate (Delépine), 64.
Lockyer (J. N.) on the causes which produce the phenomena of new stars, 443. —— on the chief line in the spectrum of the nebula, 136.
Love (A. E. H.) note on the present state of the theory of thin elastic shells, 100.
Luminous discharge of electricity through a rarefied gas, on the rate of propagation of the (Thomson), 84.
Lunt (J.) and Sir H. E. Roscoe, contributions to the chemical bacteriology of sewage, 455.
Lydekker (R.) on the generic identity of Streptococcus and Phascolomonas, 60.

Macaulay (A. B.) on the demonstration of the presence of iron in chromatin by micro-chemical methods, 488.
McConnel (J. C.) on the plasticity of an ice-crystal, 323.
MacWilliam (J. A.) a new test for albumin and other proteids, 368.
Magnetic screening, on variational electric and (Thomson), 418.
Magnetism, on the unsymmetrical distribution of terrestrial (Wilde), 120.
Malaria, on the demonstration by staining of the pathogenic fungus of, its artificial cultivation, and the results of inoculation of the same (Evans), 199. —— note on above (Dyer), 539.
Mallock (A.) note on the instability of india-rubber tubes and balloons when distended by fluid pressure, 458. —— some measures of Young’s modulus for crystals, &c., 380.
Mammalian nervous system, on the; its functions and their localisation determined by an electrical method.— Croonian lecture (Gotch and Horsley), 235.
Marceot (W.) on the chemical phenomena of human respiration while air is being re-breathed in a closed vessel, 103.
Marr (John Edward) elected, 491.
Marshall (John) obituary notice of, iv.
Matthey (E.) further contributions to the metallurgy of bismuth, 78.
Metallurgy of bismuth, further contributions to the (Matthey), 78.
Metals, on certain properties of, considered in relation to the periodic law (Roberts-Austen), 347.
Mond (Ludwig) elected, 491.
Mummery (J. H.) some points in the structure and development of dentine, 319.
Muscle, striped, on the minute structure of, with special reference to a new method of investigation by means of “impressions” stamped in colloidion (Haycraft), 76, 287.
Muscle-columns or sarcotyles which form the wing muscles of insects, on the minute structure of the. Preliminary note (Schafer), 76, 280.

Neubule, on the chief line in the spectrum of the (Keeler), 399. —— (Lockyer), 136. —— —— A reply (Huggins), 136.
Nervous system, on the mammalian; its functions and their localisation determined by an electrical method.— Croonian lecture (Gotch and Horsley), 235.
Nitrogen, anaesthetic action of pure (Johnson), 144.
Niven (W. D.) on ellipsoidal harmonics, 1.
Norman (Rev. A. M.) admitted, 538.
Numerical registration of colour, the. Preliminary note (Abney), 227.

Obituary notices:—
Casey, John, xxiv.
Donders, Frans Cornelis, vii.
Ellis, Alexander John, i.
Marshall, John, iv.
Oligochætous annelid, preliminary notice of a new form of excretory organs in an (Beddard), 308.

Paraffinic nitriles, the physiological action of the, considered in connexion with their chemical constitution. Part I. The action of the paraffinic nitriles on blood pressure (Cash and Dunstan), 314. 
*Pareiasaurus*, further observations on (Seeley), 518.

Parker (W. N.) on the anatomy and physiology of *Protopterus annectens*, 549.

Passive state of iron and steel, on the (Andrews), 120, 481.

Pathogenic-fungus of malaria, its artificial cultivation, and the results of inoculation of the same, on the demonstration by staining of the (Evans), 199.

— note on Dr. Fenton Evans’ paper on the (Dyer), 539.

Periodic electric currents, on the sensitiveness of the bridge method in its application to (Rayleigh), 203.

— law, on certain properties of metals considered in relation to the (Roberts-Austen), 347.

Pernan (E. P.) and W. Ramsay, an attempt to determine the adiabatic relations of ethyl oxide. Part I. Gaseous ether, 447.

Ramsay (A.) on certain conditions that modify the virulence of the bacillus of tubercle, 66.

Rayleigh (Lord) on the sensitiveness of the bridge method in its application to periodic electric currents, 203.

Reflection and refraction of light at the surface of a magnetised medium, on the (Basset), 76.

Refractive index of certain liquids, on the effect of temperature upon the (Cassie), 343.

Reptilia, researches on the structure, organisation, and classification of the fossil. VII. Further observations on *Pareiasaurus* (Seeley), 518.

Respiration, human, on the chemical phenomena of, while air is being re-breathed in a closed vessel (Marchet), 103.

Roberts-Austen (W. C.) on certain properties of metals considered in relation to the periodic law, 347.

Roscoe (Sir H. E.) and J. Lunt, contributions to the chemical bacteriology of sewage, 455.

Rupture of steel by longitudinal stress, on the (Carus-Wilson), 243.

Simpson (R. A.) on Stokes's current function, 46.

Sarcostyles or muscle-columns which form the wing muscles of insects, on the minute structure of the. Preliminary note (Schäfer), 76, 280.

*Scoparnodon* and *Phascolonus*, on the generic identity of (Lydekker), 60.

Schäfer (E. A.) on the minute structure of the muscle-columns or sarcostyles which form the wing muscles of insects. Preliminary note, 76, 280.

— on the structure of amoeboid protoplasm, with a comparison between the nature of the contractile process in amoeboid cells and in muscular
INDEX.

Stokes (Sir G. G.) note on a graphical representation of the results of Dr. Alder Wright’s experiments on ternary alloys, 174.

Stokes’s current function, on (Sampson), 46.

Strachey (R.) and G. M. Whipple, cloud photography conducted under the Meteorological Council at the Kew Observatory, 407.

Stress, the rupture of steel by longitudinal (Carus-Wilson), 243.

Striped muscle, on the minute structure of, with special reference to a new method of investigation, by means of “impressions” stamped in collodion (HAYCRAFT), 76, 287.

Stuart (T. P. A.) a simple mode of demonstrating how the form of the thorax is partly determined by gravitation, 143.

— on a membrane lining the fossa patellaris of the corpus vitreum, 127.

— on the connexion between the suspensory ligament of the crystalline lens and the lens capsule, 141.

Sulphur, on a determination of the boiling point of, and on a method of standardising platinum resistance thermometers by reference to it (Callendar and Griffiths), 56.

Sumpner (W. E.) and W. E. Ayrton, the measurement of the power given by any electric current to any circuit, 424.

Sun and sky, photometric observations of the (Brennand), 4, 255.

Temperature, on the effect of, upon the refractive index of certain liquids (Cassie), 343.

Ternary alloys, note on a graphical representation of the results of Dr. Alder Wright’s experiments on ternary alloys (Stokes), 174.

— on certain. Part III. Alloys of bismuth, zinc, and tin, and of bismuth, zinc, and silver (Wright and Thomson), 156.

— Part IV. On a method of graphical representation (suggested by Sir G. G. Stokes) of the way in which certain fused mixtures of three metals divide themselves into two different ternary alloys; with further experiments suggested thereby (Wright, Thompson, and Leon), 174.

Terpenes, camphor, and camphor acids, on the constitution of the (Colie), 554.

Terrestrial magnetism, on the un-
symmetrical distribution of (Wilde), 120.
Thermometers, on a determination of the boiling point of sulphur, and on a method of standardising platinum resistance (Callendar and Griffiths), 56.
Thompson (C.), J. T. Leon, and C. R. A. Wright, on certain ternary alloys. Part IV. On a method of graphical representation (suggested by Sir G. G. Stokes) of the way in which certain fused mixtures of three metals divide themselves into two different ternary alloys; with further experiments suggested thereby, 174.
— and C. R. A. Wright, on certain ternary alloys. Part III. Alloys of bismuth, zinc, and tin, and of bismuth, zinc, and silver, 156.
Thompson (Silvanus Phillips) elected, 491.
— on galvano-hysteresis. Preliminary notice, 439.
— on the focometry of lenses and lens-combinations, and on a new focometer, 225.
Thomson (J. J.) on the rate of propagation of the luminous discharge of electricity through a rarefied gas, 84.
Thomson (Sir W.) on electrostatic screening by gratings, nets, or perforated sheets of conducting material, 405.
— on variational electric and magnetic screening, 418.
Thorax, a simple mode of demonstrating how the form of the, is partly determined by gravitation (Stuart), 143.
Tidal prediction, on.—Bakerian lecture (Darwin), 130.
Tin, zinc, and bismuth, alloys of, and of bismuth, zinc, and silver (Wright and Thompson), 156.
Tizard (Thomas Henry) elected, 491.
Tobacco scotoma, on the examination for colour of cases of, and of abnormal colour blindness (Abney), 491.
Tubercle, on certain conditions that modify the virulence of the bacillus of (Ransome), 66.

Uterine villiform papillae of Pteroplatea micrura and their relation to the embryo, on the (Wood-Mason and Alcock). No. XXII, 359.

Vertebrate liver, contribution to the study of the (Delépine), 64.
Vice-Presidents, appointment of, 1.

Whipple (G. M.) and R. Strachey, cloud photography conducted under the Meteorological Council at the Kew Observatory, 467.
Wilde (H.) on the unsymmetrical distribution of terrestrial magnetism, 129.
Williamson (W. C.) on the organisation of the fossil plants of the coal-measures. Part XVIII, 154.
Wing muscles of insects, on the minute structure of the muscle-columns or sarcostyles which form the, Preliminary note (Schäffer), 76, 280.
Wolf and Rayet’s bright-line stars in Cygnus, on (Huggins and Huggins), 33.
Wood-Mason (J.) and A. Alcock, on the uterine villiform papillae of Pteroplatea micrura, and their relation to the embryo, being natural history notes from H.M. Indian Marine Survey steamer “Investigator,” No. XXII, 339.
Wright (C. R. A.) and C. Thompson, on certain ternary alloys. Part III. Alloys of bismuth, zinc and tin, and of bismuth, zinc, and silver, 156.
— C. Thompson, and J. T. Leon, on certain ternary alloys. Part IV. On a method of graphical representation (suggested by Sir G. G. Stokes) of the way in which certain fused mixtures of three metals divide themselves into two different ternary alloys; with further experiments suggested thereby, 174.
Wright’s (Dr. Alder) experiments on ternary alloys, note on a graphical representation of the results of (Stokes), 174.

Young’s modulus for crystals, some measures of (Mallock), 380.

Zinc, bismuth, and tin, alloys of, and of bismuth, zinc, and silver (Wright and Thompson), 156.