

The Analyst,

THE ORGAN OF THE

Society of Public Analysts.

A MONTHLY JOURNAL DEVOTED TO THE ADVANCEMENT OF
ANALYTICAL CHEMISTRY.

EDITORIAL COMMITTEE:

THE PRESIDENT (J. AUGUSTUS VOELCKER, M.A., B.Sc., Ph.D., F.I.C.).

ALFRED H. ALLEN, F.I.C.

WILLIAM CHATTAWAY, F.I.C.

EDWARD J. BEVAN, F.I.C.

BERNARD DYER, D.Sc., F.I.C.

BERTRAM BLOUNT, F.I.C.

OTTO HEHNER, F.I.C.

ALFRED C. CHAPMAN, F.I.C.

E. W. VOELCKER, F.I.C.

EDITOR: WALTER J. SYKES, M.D., D.P.H., F.I.C.

VOLUME XXVII.

1902.

SIMPKIN, MARSHALL, HAMILTON, KENT & CO., LTD.,

16, JAMES STREET, HAYMARKET, LONDON, S.W.

ERRATA.

Page 87, fourth line from bottom, *for* "100 c.c." *read* "1,000 c.c."

Page 236, fifth line from bottom, *for* "Victoria" *read* "Nelson."

INDEX TO VOLUME XXVII.



- ABBOTT, J. W., Method for the estimation of metallic impurities in Condensed Milk, 357
- Abel, Sir F., Death of, 293
- Absinthes, Composition and Analysis of, 55
- ABSTRACTS OF PAPERS PUBLISHED IN OTHER JOURNALS, 8, 54, 88, 120, 153, 192, 225, 248, 275, 298, 324, 357
- Acetanilide in Urine, Detection of, 20
- Acetylsalicylic Acid, 58
- Acid, Acetylsalicylic, 58
- , Arsenic, Action of boiling Hydrochloric Acid upon, 268
- , Arsenious, Colorimetric method of determining, 335
- , Benzoic, and alkali Benzoates in Food, Detection of, 56
- , Boric, Action of, on the Digestion, 272
- , —, Determination of, 34
- , —, —, Direct gravimetric, 103
- , —, Excretion of, from the body, Quantitative estimations of the, 273
- , —, Influence of, on the utilization of Food, 273
- , —, and Borax, Action of, on Human beings and animals, 271
- , —, — its salts, Use of, as Food Preservatives, 271
- , —, in Butter, Rapid estimation of, 179
- , —, present in Hams which have been stored in powdered Borax or Boric Acid, Amount of, 274
- , Carbonic, Gas-volumetric method of determining free and combined, 102
- , Chromic, Detection of, by means of Hydrogen peroxide in the presence of Vanadic Acid, 73
- , Citric, Stahre's reaction for, 196
- , Gallic, in Tanning materials, Detection of, 95
- , Hydrochloric, Note on the purification of, from Arsenic, 233
- , —, —, Chlorides, Silver, and Phosphates, Gas-volumetric method of determining, 72
- , —, —, or Nitric Acid, Method for preparing strictly tenth-normal, fifth-normal, etc., 36
- , Hydrocyanic, Determination of, 303
- , —, —, in Sweet Cassava, 9
- , Hydrofluoric, Determinations of the strength of aqueous solutions of, 101
- , 3-Hydroxybutyric, in Urine, Estimation of, 63
- , Lactic, in the Gastric juice, Detection and estimation of, 160
- , Molybdic, Determination of, after reduction with Hydriodic Acid, 233
- , Nitric, Colorimetric estimation of, 101

- Acid, Nitric, Detection of, in the presence of an alkali-metal ferrocyanide or ferricyanide, 290
 —, —, or Hydrochloric Acid, Method for preparing strictly tenth-normal, fifth-normal, etc., 36
 —, Oleic, Molecular equivalent of, 362
 —, Oxalic, in Urine, Determination of, 332
 —, Palmitic, Molecular equivalent of, 362
 —, Phosphoric, Determination of, as phospho-molybdic anhydride, 32
 —, —, Influence of Potassium ferrocyanide on the precipitation of, 290
 —, —, Use of, in analysis of Iron alloys, 162
 —, —, in Milk, etc., Notes on the estimation of, 89
 —, —, in Soil, Estimation of, by the Götz process, 31
 —, Prussic, in Sweet Cassava, 9
 —, Salicylcarboxylic, Ethyl Ester of, 57
 —, Salicylic, and Saccharin in Foods, Detection of, 277
 —, —, as an adulterant in Oil of Lavender, 327
 —, Selenious, Behaviour of, in the Marsh Apparatus, 339
 —, Stearic, Molecular equivalent of, 362
 —, Sulphuric, Free and combined, Gas-volumetric method of determining, 102
 —, —, —, new volumetric method for the determination of, 290
 —, —, Use of, as a solvent for minerals rich in Arsenic, Iron, and Lead, 336
 —, —, in Soils, Determination of, 307
 —, —, in soluble sulphates, Volumetric method for the estimation of, 307
 —, Sulphurous, of Beer, Notes on the, 326
 —, —, in dried Fruits, Estimation of, 226
 —, Tartaric, in Cream of Tartar, Estimation of, 119
 —, Uric, and Urates, Oxidation and estimation of, 333
 —, —, in Urine, Determination of, 332
 —, —, —, Jolles' process for the estimation of, 97
 — and Alkali titration, Rubrescin a new Indicator for, 228
 — solutions, Methods of standardizing, 36
 Acids, Fatty, Molecular equivalent of insoluble, 362
 —, —, and Glycerides, Hexabromides of, 237
 —, Hydrochloric and Hydrocyanic, Quantitative separation of, 162
 —, Nitric and Nitrous, Behaviour of, with Brucine and Sulphuric Acid, 162
 — and Alkalies, Microchemical detection of, 289
 Ackroyd, W., Marsh-Berzelius Arsenic deposit, 306
 Aconitine in certain preparations of Aconite, Determination of, 299
 Airogen, 58
 Airol, 58
 Albumin, Bromine and Iodine values of, 18
 — in Urine, Reagent for, 257
 Alcock, F. H., Preservation of volumetric solutions of Sodium thiosulphate, 106
 —, and Wilkins, W., Test for Phenacetin, 360
 Alcohol, Methyl, in Formalin, Detection and estimation of, 60
 —, Nicloux's method of determining, 125
 — in Sulphuric Ether, Estimation of, 56
 Alcohols, Separation of Terpene, from their Esters by means of Sodium salicylate, 93
 — or Phenols, Estimation of, 60
 Aldehyde, Formic, Detection of, 227
 —, —, Estimation of, 329
 —, —, Gravimetric determination of, 93
 —, —, in articles of Food, Rapid detection of, 192

INDEX TO VOLUME XXVII.

v

- Aldehyde, Formic, in Milk, Modification of the Sulphuric Acid test for, 8
- Alfthan. *See* Von Alfthan
- Alkali, Titration of free, in the presence of nitrites, 338
- and Acid titration, Rubrescin a new Indicator for, 228
- works, Analyses required for an electrolytic, 288
- Alkalies and Acids, Microchemical detection of, 289
- in Waters, Indirect estimation of, 137
- Alkalimetry, Gas-volumetric method of, 340
- Alkaloids, Extraction of, from acid solutions and salts of the Alkaloids from aqueous solutions, 367
- , ———, ——— alkaline solutions, 366
- , ———, Formaldehyde and Sulphuric Acid as a test for, 12
- , ———, Method of determining the solubility of, 159
- in Cinchona Bark, etc., Estimation of, 226
- in toxicology, Comparison of the Stas-Otto and Kippenberger methods of detecting, 195
- ——— Metallic salts, and Proteids, Precipitation of, by extracts of Coffee and Tea, 259
- ——— of Ipecacuanha, Certain reactions of the, 345
- Allard, G., Analysis of alkali Persulphates, 71
- Allen, A. H., Action of boiling Hydrochloric Acid upon Arsenic Acid, 270
- , ———, Colour of Water, 296
- , ———, Contribution to a knowledge of the chemistry of Cider, 183
- , ———, Detection of Arsenic, 210
- , ———, Estimation of Platinum, Gold, and Silver in alloys, 265
- , ———, Fluorides as Butter Preservatives, 178
- , ———, Oxidized Oils, 145
- ——— and Scott-Smith, G. E., Analysis of preparations containing Opium, 350
- ———, ———, Certain reactions of the Alkaloids of Ipecacuanha, 345
- Alloxanphenols, 57
- Allspice, Analysis of, 54
- Almond Oil, Molecular equivalent of insoluble Fatty Acids of, 362
- Aloes, Detection of, in pharmaceutical preparations, 193
- , ———, Identification of, 194
- Aloins in Aloes, Determination of, 250
- Aloy, J., Colour reaction of Uranium salts and Hydrogen peroxide, 288
- , ———, Precipitation of metals by Bismuth oxide, 161
- Aluminium hydroxide, Solubility of, in solutions of Sodium or Ammonium salicylate, 30
- ——— sulphate, Valuation of commercial, 100
- Alums, Volumetric estimation of Alumina and free and combined Sulphuric Acid in, 230
- Amido-Sugars, Isolation of, 13
- Ammonia, Arsenic in aqueous, Presence of, 101
- , ———, Determination of albuminoid and proteid, 281
- in Urine, Estimation of, 20
- Ammonium carbonate, Presence of Copper in powdered, 158
- ——— vanadate, Precipitation of, by means of Ammonium chloride, 371
- ——— with Cadmium, Cobalt, Manganese, and Zinc, Volumetric determination of the double phosphates of, 286
- Andés, L. E., Larch Turpentine and Venice Turpentine, 254
- Andouard, A. and P., Adulteration of Turpentine with "white spirit," 127
- Animal Fats, Detection of Vegetable Oils in, by means of the Phytosterol acetate test, 94

- Animal Oils, Detection of, drying and marine, 14
- Aniodol, 57
- Aniseed, Oil of, Notes on, 366
- Anthracene, Detection of Carbazol and Phenanthrene in, 366
- Anthranilic Methyl Ester, Estimation of, 329
- Antiethylin, 58
- Antimony, Determination of Tin and its separation from, 336
- , ————— traces of, in the presence of large quantities of Arsenic, 65
- , Tin, Copper, and Lead in alloys, Separation of, 99
- Antipyrine salicylate, 59
- Antiseptic solutions, Estimation of Mercury in, 11
- APPARATUS. ABSTRACTS, 37, 108, 132, 163, 208, 234, 292, 309, 342, 371
- Apple, Chemical analysis of the, and some of its products, 121
- Apricots, Colouring matter and Sugar of, 325
- Aquinol, 57
- Araban, Behaviour of, towards Fehling's solution, 301
- Arabinose, Quantitative estimation of, 196
- Arachis Oil, Iodine value of, 199
- Archbutt, L., Determination of Carbon in Steel by direct combustion, 5
- Archetti, A., Determination of Hydrocyanic Acid, 303
- Areo-pyknometer, New, 371
- Argentum thiohydrocarburo-sulphonicum, 57
- Armingeat, P., *and* Darzens, G., Separation of Terpene Alcohols from their Esters by means of Sodium salicylate, 93
- Arndt, K., Titration of free alkali in the presence of Nitrites, 338
- Arnold, C., *and* Mentzel, C., Detection of Formaldehyde, 227
- , Old and new reactions of Ozone, 291
- , Rapid detection of Formaldehyde in articles of Food, 192
- Aromatic bases as precipitants for rare earth metals, 288
- Arsenic, Discussion on the report of the Joint Committee of the Society of Chemical Industry and Public Analysts on the determination of minute quantities of, 210
- , Note on the purification of Hydrochloric Acid from, 233
- , Quantitative determination of small quantities of, 335
- , Acid, action of boiling Hydrochloric Acid upon, 268
- Committee, 7
- deposit, Marsh-Berzelius, 306
- in aqueous Ammonia, Presence of, 101
- in Beer, 84
- , Brewing materials, Food-stuffs, and Fuels, Report of the conjoint Committee on the detection and approximate estimation of minute quantities of, 48
- in toxicology, Estimation of, 250
- , Selmi's process for the determination of, 251
- Arsenious Acid, Colorimetric method of determining, 335
- Aspirin, Tincture of, 87
- Atmosphere, Note on a convenient apparatus for the chemical and bacteriological examination of the, 243
- Atrabilin, 59
- Auchy, G., Note on the determination of Molybdenum in Steel, 205
- Autenrieth, W., *and* Barth, H., Determination of Oxalic Acid in Urine, 332
- Auzenat, R., Determination of Sulphur in Iron Pyrites, 206
- Avenose, 59

INDEX TO VOLUME XXVII.

vii

- Bacteriology, Manual of Determinative, *Review*, 39
 Baker, J., Determination of Arsenic, 211
 ———, Artificial Coffee berries, 116
 Balance, New weighing-out, 134
 Balbiano, L., and Paolini, V., Olefines and Naphthenes in Petroleum, 61
 Ballantyne, H., Oxidized oils, 145
 Barbaloin, Chlor-acetyl derivative of, 250
 Barbier, —, Myrcenol, 18
 Barillé, A., Composition of Kissi Pepper, 298
 Barium in Mineral Waters containing sulphates, Presence of, 231
 ———, Sodium, etc., Peroxides of, Iodometric valuation of the, 338
 Bark, Estimation of Alkaloids in Cinchona, 226
 Barth, H., and Autenrieth, W., Determination of Oxalic Acid in Urine, 332
 Basol, 58
 Battaglia, L., Characteristics of Tomato-seed Oil, 61
 Bau, A., Recognition of Pasteurized Beer, 156
 Bayley v. Pearks, Gunston, and Tee (Ltd.), Milk-blended Butter case, 167
 Bechi or Silver nitrate test on Olive Oils, Note on the use of the, 198
 Beckmann, E., Estimation of Fusel Oil in Brandy or other Alcoholic Liquors, 88
 ———, So-called Honey Dextrin, 90
 Beckmann's Thermometer with Kühn's additional scale, 311
 Beef Fat, Constants of Roast, Corned, and Smoked, 225
 ———, Iodine numbers of, 157
 ———, Stearine in Lard, Belfield's test for, 247
 Beer, Arsenic in, 84
 ———, Notes on the Sulphurous Acid of, 326
 ———, Recognition of Pasteurized, 156
 ———, Brewing materials, Food-stuffs, and Fuels, Report of the conjoint Committee on the detection and approximate estimation of minute quantities of Arsenic in, 48
 Beeswax, Effect of bleaching on the constants of, 300
 Beger, C., Estimation of Fat in Food-stuffs, 120
 Behrens, H., Detection of Carbazol and Phenanthrene in Anthracene, 366
 Belfield's test for Beef-Stearine in Lard, 247
 Bellach, V., Technical estimation of Silver bromide in photographic dry plates, 369
 Benedict, F. G., and Manning, C. R., Chemical method for obtaining reduced Pressures, 310
 Benz, F., Rapid method for estimating Thorium in Monazite sand, 207
 Benzoates, Alkali, and Benzoic Acid in Food, Detection of, 56
 Benzoic Acid and Alkali Benzoates in Food, Detection of, 56
 Benzoylvinyldiacetonealkamine, 123
 Berberine, Notes on the estimation of, 91
 Berg, R., Effect of bleaching on the constants of Beeswax, 300
 Bergamot, Oil of, Notes on, 364
 Bergell, P., Estimation of β -Hydroxybutyric Acid in Urine, 63
 Bertault, —, Detection of Indican in Urine, 160, 200
 Beryllium, Separation of, 287
 Beythien, A., and Bohrisch, P., Estimation of Sulphurous Acid in dried Fruits, 226
 Biewend, R., Detection of Cadmium and Zinc by blowpipe tests, 337
 ———, Mercury assay, 334
 Binda, C., Detection of Phosphorus in cases of Poisoning, 92
 Binz, A., and Runz, F., Estimation of Indigotin on Fabrics, 302
 Bismal, 58
 Bismuth, Electrolytic determination of, 261

- Bismuth in ores, Volumetric Estimation of, 130
 ——— oxide, Precipitation of metals by, 161
 ——— with Tellurium, Compounds of, and the quantitative separation of the two elements, 262
 Bismuthum subgallicum, 59
 Bleach and chlorate liquors, Estimation of chlorates in electrolytic, 30
 Blood, Guaiacum test for, 329
 ———, Human, Differentiation of, from the Blood of Animals, 194
 ———, ———, Specific sera for, 250
 ———, Serum test for, Notes on the, in forensic cases, 278
 ——— albumin, Bromine and Iodine values of, 18
 ——— -Colouring matters in Urine, Detection of, 367
 Blount, B., Determination of Carbon in Steel by direct combustion, 1
 ———, Proposed standardization of methods of chemical analysis, 318
 Blowpipe tests, Notes on some, 107
 Blue, Prussian, in Spent Oxide, Determination of, 339
 Blyth, M. W., Detection of artificial Colouring matters in fresh and sour Milk, 147
 Boarding-house, Government scientific, 313
 Bocarius, N., Forensic value of "Florence's Crystals," 360
 ———, Nature of the substance which causes the formation of "Florence's Crystals," 361
 Bodmer, R., Determination of Arsenic, 210
 Bohrisch, P., and Beythien, A., Estimation of Sulphurous Acid in dried Fruits, 226
 Bölsing, F., and Verley, A., Estimation of Alcohols or Phenols, 60
 Bömer, A., Detection of Vegetable Oils in Animal Fats by means of the Phytosterol acetate test, 94
 BOOKS, REVIEWS OF :
 Chester, F. D., Manual of determinative Bacteriology, 39
 Geerligs, H. C. P., Cane-Sugar and the process of its manufacture in Java, 2nd edition, 372
 Henius, M., and Wahl, R., American Handy Book of the Brewing, Malting, and auxiliary Trades, 74
 Higginson, C. J., Food and Drugs, 2nd edition, 136
 Hollman, Dr. A. F., Text-Book of Inorganic Chemistry, 315
 Lewkowitsch, Dr. J., Laboratory companion to Fats and Oils Industries, 112
 Mason, W. P., Water-supply : considered principally from a sanitary standpoint, 3rd edition, 315
 Oppenheimer, C., *translated by* Mitchell, C. A., Ferments and their uses, 73
 Rideal, S., Sewage and the Bacteriological purification of Sewage, 2nd edition, 74
 Rijn. *See* Van Rijn
 Russell, H. L., and Turneure, F. E., Public Water Supplies, 39
 Van Rijn, Dr. J. J. L., Composition of Dutch Butter, 136
 Wahl, R., and Henius, M., American Handy Book of the Brewing, Malting, and auxiliary Trades, 74
 Borax, Influence of, on Metabolism in Man, 273
 ———, Behaviour of, when distilled with Methyl Alcohol, 34
 ——— and Boric Acid, Action of, on human beings and animals, 271
 Pordas, F., and De Raczkowski, S., Determination of Lecithin in Milk, 325
 Boric Acid, Action of, on the Digestion, 272
 ———, Determination of, 34
 ———, ———, Direct gravimetric, 103
 ———, Excretion of, from the body, Quantitative estimations of the, 273
 ———, Influence of, on the utilization of Food, 273

INDEX TO VOLUME XXVII.

ix

- Boric Acid and Borax, Action of, on human beings and animals, 271
 ——— its salts, Use of, as Food Preservatives, 271
 ——— in Butter, Rapid estimation of, 179
 ——— present in Hams which have been stored in powdered Borax or Boric Acid, Amount of, 274
- Bourquelot, E., Detection of Cane-Sugar in Vegetable substances by means of Invertase, and of Glucosides by means of Emulsin, 62
 ———, Reactions for the identification of certain Drugs, 194
- Brakes, J., Volumetric Determination of Molybdenum in Molybdenum Steel and Ferro-Molybdenum, 305
- Brandy and other Alcoholic Liquors, Estimation of Fusel Oil in, 88
- Brearley, H., and Ibbotson, F., Estimation of Tin in White-metal Alloys, 25
 ———, Volumetric estimation of Manganese, 69
- Bremer, W., König, J., and Spieckermann, A., Decomposition of Food materials by Micro-organisms. Part I.: Fat-consuming Micro-Organisms, 10
- Brevans. *See* De Brevans
- Brewing, Malting, and auxiliary Trades, American Handy Book of the, *Review*, 74
 ——— materials, Beer, Food-stuffs, and Fuels, Report of the conjoint Committee on the detection and approximate estimation of minute quantities of Arsenic in, 48
- Briant, L., Fluorides as Preservatives, 178
- Bridge, Smithies v., Milk of inferior quality from a single cow, 171
- British Columbia, Bureau of Mines Amendment Act of, 1899, Examination under the, 40, 236
 ——— Institute of Assayers, 112
- Bromine and Iodine, Detection of, in the presence of thiosulphates, 338
- Bromipin, 58
- Bromphenylate, 58
- Brom-tannin-gelatin, 59
- Browne, C. A., Chemical analysis of the Apple and some of its products, 121
- Browning, P. F., Determination of Cæsium and Rubidium as bisulphate, and of Potassium and Sodium as pyrosulphate, 70
- Brunck, O., Electrolytic determination of Bismuth, 261
- Büchner's Funnel, Improved, 292
- Buffalo and Sheep Butter, Lard, and Walnut Oil, Some analyses of Bulgarian, 9
- Burette-Calibrator, Modified form of the Ostwald, 37
- Burgess, W. T., Alkaline Waters from the Lower Greensand, 218
 ———, Note on a simple apparatus for approximately estimating the Colours of Waters, 294
- Burk, W. E., Quantitative determination of Fluorine in Fluorides easily decomposable by Sulphuric Acid, 72
- Burstyn, W., Pressure Regulator for distillation under diminished pressure, 163
 ———, Receiver for Fractional Distillation under diminished pressure, 132
- Burton and Sons (Ltd.), J., v. Mattinson, Amount of Water in Margarine, 169
- Busch, M., Herzig and Meyer's method of determining Methyl, 251
- Butter, Apple, Analysis of, 122
 ———, Boric Acid in, Estimation of, 179
 ———, Bulgarian Buffalo and Sheep, Lard, and Walnut Oil, Some analyses of, 9
 ———, Cacao, Composition of, 198
 ———, ———, Glycerides in, Occurrence of mixed, 15
 ———, Coconut Oil in true, Detection of, 8
 ———, Constants of, 200
 ———, Dutch, Analysis of, 248
 ———, ———, Composition of, *Review*, 136
 ———, Milk-blended, 84

- Butter, Starch as an adulterant or drier in, 121
 ——— cases, Milk-blended, *Bayley v. Pearks, Gunston, and Tee*, 167; *Hayes v. Rule and Law*, 165; *Hennen v. Southern Counties Dairies Company (Ltd.)*, 164; *Pearks, Gunston, and Tee v. Houghton*, 110; *Pearks, Gunston, and Tee v. Ward*, 164
 ——— Fat, Separation and estimation of cholesterol in, 358
 ——— from Human Milk, Characteristics of, 200
 ——— Preservatives, Fluorides as, with observations on their influence on artificial Digestion, 173
 ——— regulations, 83
 Byron, T. H., Use of Phosphoric Acid in analysis of Iron alloys, 162
 Bystropogon *Origanifolius*, Oil of, Notes on, 366
- Cacao Butter, Composition of, 198
 ———, Glycerides in, Occurrence of mixed, 15
 Cachou, Tincture of, Identification of, 194
 Cadmium, Reagent for, 68
 ——— and Zinc, Detection of, by blowpipe tests, 337
 ———, Cobalt, Manganese, and Zinc, Volumetric determination of the double phosphates of Ammonium with, 286
 Cæsium and Rubidium, Determination of, as bisulphate, 70
 Caffeine, Estimation of, 359
 Caines, C. M., and Squire, P. W., Acetic Acid test for Oil of Turpentine, 277
 Cakes, Pastry, etc., Detection of Coal-Tar Colours in, 276
 Calcium hypophosphite, Behaviour of, in the animal system, 124
 Calibrator, Burette-, Modified form of the Ostwald, 37
 Cameron, Sir C. A., Some notes on the analysis of Drugs, 87
 Campbell, E. D., Rotary Cement Kiln for use in the laboratory, 207
 Camphor Oils, Notes on, 364
 Candle-nut Oil, 62
 Cane-Sugar in Vegetable substances, Detection of, by means of Invertase, 62
 Carbazol and Phenanthrene in Anthracene, Detection of, 366
 Carbon, Determination of, in the presence of Osmium, 234
 ———, To distinguish the different varieties of, 284
 ——— in Steel, Determination of, by direct combustion, 1
 Carbonic Acid, Gas-volumetric method of determining free and combined, 102
 Carles, P., Presence of Barium in mineral Waters containing sulphates, 231
 Carmody, —, Prussic Acid in Sweet Cassava, 9
 Carpenter, F. P., Analysis of crude Sulphur, 306
 Casein, Bromine and Iodine values of, 18
 ———, Determination of the, precipitated by Rennet, 357
 Cassava, Sweet, Prussic Acid in, 9
 Castor Oil, Iodine value of, 199
 ———, Molecular equivalent of insoluble Fatty Acids of, 362
 Cazeneuve, P., Detection of Chrome Yellow in dyed Cotton, 22
 Cellulose, New method for the determination of, 256
 Cement Kiln, Rotary, for use in the laboratory, 207
 Cephaeline, Reactions of, 349
 Cereals, Determination of Starch in, 8
 Ceresin, Paraffin, Fats, Oils, Soaps, etc., Quantitative estimation of Colophony in, 252
 Ceria from mixtures of rare earths, New method of separating, 232
 Cerny, Z., Detection of Peptone in Urine, 64
 Chapman, —, Mannitic fermentation of Wine, 42
 Chatelan, A., Combined apparatus for extraction and recovery of the solvent, 109

INDEX TO VOLUME XXVII.

xi

- Chattaway, W., Analysis of preparations containing Opium, 353
 ———, and Wharton, F. M., Note on a convenient apparatus for the chemical and bacteriological examination of the atmosphere, 243
 Chemical analysis, Proposed standardization of methods of, 318
 Cherry juice in Raspberry juice and Red Wines, Detection of, 10
 Chester, F. D., Manual of Determinative Bacteriology, 39
 Chininum lygosinatum, 57
 Chlopin, G. W., Alleged poisonous properties of "Mandarin" and "Metanil Yellow," 158
 Chlorate and Bleach liquors, Estimation of Chlorates in electrolytic, 30
 Chlorides, Hydrochloric Acid, Silver, and Phosphates, Gas-volumetric method of determining, 72
 Chlorine, Estimation of, Apparatus for the volumetric, 313
 Chlorosonin, 58
 Cholesterin, New reaction for, 331
 ——— and Phytosterin from mixtures of Fatty and Mineral Oils, Separation of, 251
 ——— from Fats, Quantitative separation of, 198
 ——— (Phytosterin) from Fats, Quantitative separation of, 16
 Cholesterol, New colour reaction for, 94
 ——— in Butter Fat, Separation and estimation of, 358
 Chrome Yellow in dyed Cotton, Detection of, 22
 Chromic Acid, Detection of, by means of Hydrogen peroxide in the presence of Vanadic Acid, 73
 Cider, Apple, Analysis of, 122
 ———, Chemistry of, Contribution to a knowledge of the, 183
 ——— jelly, Analysis of, 122
 Cinchona Bark, etc., Estimation of Alkaloids in, 226
 Cinnamyl-*m*-Cresol, 57
 Citric Acid, Stahre's reaction for, 196
 Civet, Examination of, 368
 Cloves, Analysis of, 54
 Coal-Gas, Hydrogen sulphide in, Estimation of, 22
 ———, Sulphuretted Hydrogen in, Detection and estimation of minute quantities of, 219
 ——— -Tar Colours in Pastry, Cakes, etc., Detection of, 276
 ——— preserved Fruits (Jams), Marmalade, etc., Detection of, 276
 ——— derivatives and Morphine, Colour reactions of certain, with Formaldehyde and Sulphuric Acid, 96
 Cobalt, Reagent for, 68
 ———, Test for, New qualitative, 262
 ——— and Nickel, Modification of Rose's method of separating, 285
 ——— Zinc, Quantitative separation of, 306
 ———, Cadmium, Manganese, and Zinc, Volumetric determination of the double phosphates of Ammonium with, 286
 Cocoa, Detection of red Sanders (Sandal) wood in, 276
 Cocoanut Oil in true Butter, Detection of, 8
 ——— shell, Analysis of, 54
 ——— in ground Spices, Detection of powdered, 54
 Cod-liver Oil, Refractometer number for, 327
 ——— Oil, Iodine value of, 199
 Coffee berries, Note on a sample of artificial, 114
 ——— containing added Starch, Note on samples of, 114
 Coffeino-natrium-salicilicum, 59

- Cognac, Cholin test for, 275
- Colloidal substances, Gold reagent for, 98
- Colophony in Fats, Oils, Soaps, Ceresin, Paraffin, etc., Quantitative estimation of, 252
- Colouring matter and Sugar of Apricots, 325
- matters in fresh and sour Milk, Detection of artificial, 147
- sausages, Detection of artificial, 91
- Colours, Coal-Tar, in Pastry, Cakes, etc., Detection of, 276
- , —————, in preserved Fruits (Jams), Marmalade, etc., Detection of, 276
- Colza Oil, Molecular equivalent of insoluble Fatty Acids of, 362
- Condenser for volatile or noxious liquids, 343
- Coppadoro, A., Precipitation of Ferrous sulphide by means of Sulphuretted Hydrogen, 130
- Copper, Determination of, Volumetric, Note on the, 260
- , —————, —————, by means of Potassium iodide, 260
- , —————, as Cuprous thiocyanate in the presence of Bismuth, Antimony, Tin, and Arsenic, 285
- , Estimation of, by Potassium permanganate, 303
- , Mercury from, Electrolytic separation of, 29
- hydroxide, Solubility of, in solutions of Sodium or Ammonium salicylate, 30
- in Iron, Electrolytic determination of, 201
- powdered Drugs and Chemicals, Presence of, 158
- , Lead, Antimony, and Tin in alloys, Separation of, 99
- . *See also* Cuprous
- Cormimbœuf, H., Detection of Vanadium, 286
- Cotton, Detection of Chrome Yellow in, 22
- seed Oil, Constants of, 140
- , Halphen's reaction for, 364
- , Iodine value of, 199
- , Molecular equivalent of insoluble Fatty Acids of, 362
- , Notes on Halphen's test for, 95
- Crawford, C., and Fulton, C., Assay of Zinc precipitates for Gold and Silver, 129
- Cream of Tartar, Estimation of Tartaric Acid in, 119
- , Spurious, 118
- Cribb, C. H., Note on (1) samples of Coffee containing added Starch; (2) a sample of artificial Coffee berries, 114
- Cripps, R. A., Examination of Cough mixtures, 354
- Crotogino, F., and Nissenson, H., Strong Sulphuric Acid as a solvent in the analysis of Tin alloys, 369
- , Use of Sulphuric Acid as a solvent for minerals rich in Arsenic, Iron, and Lead, 336
- Crouzel, E., Determination of Tannin, 301
- Crucible, Modified Gooch, 38
- Cullum, M. L., and Hinds, J. I. D., Photometric determination of Iron, 370
- Cuprol, 59
- Cuprous thiocyanate, Influence of Hydrochloric Acid on the precipitation of, 161
- Cushman, A. S., Modified form of the Ostwald Burette-Calibrator, 37
- Dakin, H. D., Use of persulphates in analysis, 307
- , Volumetric determination of the double phosphates of Ammonium with Cadmium, Cobalt, Manganese, and Zinc, 286
- Danziger, J. L., New qualitative test for Cobalt, 262
- , Sherman, H. C., and Kohnstamm, L., Temperature reaction of Oils with Sulphuric Acid—Maumené's reaction, 199

INDEX TO VOLUME XXVII.

xiii

- Darzens, G., and Armingeat, P., Separation of Terpene Alcohols from their Esters by means of Sodium salicylate, 93
- Davis, B. F., and Ling, A. R., Malt Diastase, 280
- De Brevens, J., Detection of Benzoic Acid and alkali Benzoates in Food, 56
- De Fuentes Tapis, N., and Frerichs, G., Valuation of Ipecacuanha root, 328
- De Myttenacre, F., Estimation of Alkaloids in Cinchona Bark, etc., 226
- De Nobele, —, Differentiation of human Blood from the Blood of Animals, 194
- De Raczkowski, S., and Bordas, F., Determination of Lecithin in Milk, 325
- Deiglmayr, I., Governor for use during ultimate analysis, 310
- Denigès, G., Determination of traces of Antimony in the presence of large quantities of Arsenic, 65
- , Reagent for Ferrous salts and for certain metals of the Zinc and Iron group, 67
- Dermatol, 58
- Desmoulière, A., Colouring matter and Sugar of Apricots, 325
- Desoxymorphine, 58
- Dextrin, So-called Honey, 90
- and Starch, Initial action of Iodines and other oxidizing agents in the hydrolysis of, 280
- Diastase, Malt, 280
- Dibdin, W. J., and Grimwood, R. G., Detection and estimation of minute quantities of Sulphuretted Hydrogen in Coal-gas, 219
- Dieterich, K., Adulteration of Shell-lac, 96
- Diethylsulphomethylethylmethane, 59
- Digestion, Action of Boric Acid on the, 272
- , Fluorides as Butter Preservatives, with observations on their influence on artificial, 173
- Diglycerides in Fat mixtures which contain Oxy-fatty Acids, Formula for the calculation of, 95
- Disodium Methyl-arsenate, Volumetric determination of, 258
- Distillation, Receiver for fractional, under diminished pressure, 132
- Distillations, Pressure Regulator for, under diminished pressure, 163
- Ditz, H., Detection of small quantities of Nickel in the presence of Cobalt, 27
- , Estimation of Chlorates in electrolytic Bleach and Chlorate liquors, 30
- Dogfish liver Oil, Iodine value of, 199
- Donath, E., and Margosches, B., To distinguish the different varieties of Carbon, 284
- Drugs, Food and, 2nd edition, *Review*, 136
- , Reactions for the identification of certain, 194
- , Some notes on the analysis of, 87
- Drying oven for temperatures exceeding 100° C., 134
- substances, Simple apparatus for, under reduced pressure at any required temperature, 132
- Du Roi and Kochler, MM., Detection of heated Milk, 89
- Duffy, L., Volumetric estimation of Manganese, 69
- Dupré, —, and Korn, W., Estimation of Sodium thiosulphate, sulphite, and sulphide, 162
- , — Von Kupffer, A., Stability of Potassium tetroxalate and Sodium oxalate as standard substances for volumetric analysis, 308
- Duyk, M., Action of reducing Sugars on Nickel salts in alkaline solution, 13
- , Detection and estimation of Methyl Alcohol in Formalin, 60
- Dyer, Dr. B., Detection of Arsenic, 211
- , Use of Sulphuric Acid for drying Carbonic Acid, 6
- Earth metals, Aromatic bases as precipitants for rare, 288

- Earthnut Oil, Iodine value of, 199
 ———, Sesame Oil in, Detection of, 363
 Ecalle, H., Determination of Aconitine in certain preparations of Aconite, 299
 Egg Albumin, Bromine and Iodine values of, 18
 Electrode, Improved Platinum, 311
 Emetine, Reactions of, 349
 Emich, F., Microchemical detection of Alkalies and Acids, 289
 Enamel, Examination of, and the fusibility of Silicates, 34
 Engler-Ragosine Viscosimeter, 38
 Epicarnin, 59
 Erdmann, E., Detection and estimation of Anthranilic Methyl Ester, 125
 Escot. *See* Pozzi-Escot
 Essential Oils, Notes on some, 364
 ——— of Thyme, Proportion of Phenols in, 61
 Ester, Anthranilic Methyl, Detection and estimation of, 125, 329
 Ether, Sulphuric, Estimation of Alcohol in, 56
 α - and β -Eucaine, Identification and properties of, 123
 Eupyrin, 58
 Extracting liquids with Chloroform, Apparatus for, 109
 Extraction and recovery of the solvent, Combined apparatus for, 109
 Extracts, Meat, and Vegetable Extracts, Analysis of, 153

 Fabrics, Estimation of Indigotin on, 302
 Faktor, F., Volumetric estimation of Gold with Thiosulphate, 334
 Falières, E., Volumetric determination of Disodium Methyl-arsenate, 258
 Fanto, R., and Zeisel, S., Determination of Glycerol, 300
 Fat, Beef, Constants of roast, corned, and smoked, 225
 —, —, Iodine numbers of, 157
 —, Butter, Separation and estimation of Cholesterol in, 358
 —, Horse-meat, Constants of, 225
 —, Human, Composition of, 361
 — in Food-stuffs, Estimation of, 120
 —-mixtures which contain Oxy-fatty Acids, Formula for the calculation of Diglycerides in, 95
 Fats, Animal, Detection of Vegetable Oils in, by means of the Phytosterol acetate test, 94
 —, Cholesterin from, Quantitative separation of, 198
 —, — (Phytosterin) from, Quantitative separation of, 16
 — and Oils, Use of Iodine monobromide in the analysis of, 15
 — Industries, Laboratory Companion to, *Review*, 112
 —, Oils, Soaps, Ceresin, Paraffin, etc., Quantitative estimation of Colophony in, 252
 Fatty Acids, Molecular equivalent of insoluble, 362
 — and Glycerides, Hexabromides of, 237
 — Oils, Some colour reactions of, 330, 363
 Fermentation of Wine, Mannitic, 42
 Ferments and their uses, *Review*, 73
 Ferratogen, 59
 Ferri- and Ferro-cyanides, Iodometric determination of, 291
 Ferric chloride, Solution of, 88
 Ferrinol, 59
 Ferro-Molybdenum and Molybdenum Steel, Volumetric determination of Molybdenum in, 305
 — —silicons, Estimation of Silicon in rich, by means of peroxide of sodium, 232

INDEX TO VOLUME XXVII.

xv

- Ferrous phosphate with Quinine and Strychnine, Syrup of, 87
 ——— salts, Reagent for, and for certain metals of the Zinc and Iron group, 67
 ——— sulphide, Precipitation of, by means of Sulphuretted Hydrogen, 130
 Fersan, 59
 Fibre, Wood-, Colour reaction for, 195
 Filter-paper, Preparation of a fine-grained, 163
 ——— -press, Laboratory, 208
 Filtrations, Apparatus for cold and hot, 342
 Fisher, W. W., Alkaline Waters from the Lower Greensand, 212
 ———, Fluorides as Preservatives, 178
 ———, Indirect estimation of Alkalies in Waters, 137
 Flask, Modified Wiborgh, 344
 Fleury, G., Characteristic reaction of Morphine, 57
 "Florence's Crystals," Forensic value of, 360
 ———, Nature of the substance which causes the formation of, 361
 Flour for bakers' use, Valuation of, 249
 ——— in Yeast, New method for the determination of Potato, 121
 Fluorides as Butter Preservatives, with observations on their influence on artificial Digestion, 173
 Fluorine in Fluorides easily decomposable by Sulphuric Acid, Quantitative Determination of, 72
 Folin, O., Estimation of Ammonia in Urine, 20
 ———, ——— Urea in Urine, 21
 Food, Benzoic Acid and Alkali Benzoates in, Detection of, 56
 ———, Examination of, Application of Serum diagnosis to the, 157
 ———, Formaldehyde in articles of, Rapid detection of, 192
 ———, Utilization of, Influence of Boric Acid on the, 273
 ——— and Drugs, 2nd edition, *Review*, 136
 ——— materials, Decomposition of, by Micro-organisms. Part I.: Fat-consuming Micro-organisms, 10
 ——— Preservatives, 83
 ———, Sulphites as, 55
 ———, Use of Boric Acid and its salts as, 271
 ——— -stuffs, Estimation of Fat in, 120
 Foods, Detection of Saccharin and Salicylic Acid in, 277
 FOODS AND DRUGS ANALYSIS. ABSTRACTS, 8, 54, 88, 120, 153, 192, 225, 248, 275, 298, 324, 357
 Forestier and Trillat, MM., Composition of Sheep's Milk, 324
 Formaldehyde, Detection of, 227
 ———, Determination of, Gravimetric, 93
 ———, Estimation of, 329
 ———, ———, Quantitative, 60
 ——— in articles of Food, Rapid detection of, 192
 ——— Milk, Modification of the Sulphuric Acid test for, 8
 Formalin, Detection and estimation of Methyl Alcohol in, 60
 Fraps, G. S., Determination of Sulphur in Plants, 201
 Frentzel, J., Alleged poisonous properties of the colours "Mandarin" and "Metanil Yellow," 92
 Frerichs, G., and De Fuentes Tapis, N., Valuation of Ipecacuanha root, 328
 Freundlich, J., Formula for the calculation of Diglycerides in Fat mixtures which contain Oxy-fatty Acids, 95
 Freyer, F., Estimation of Alcohol in Sulphuric Ether, 56
 Friedheim, C., and Hoffmann, M. K., Analysis of metallic Molybdenum and its lower oxides, 205

- Fruits, Dried, Estimation of Sulphurous Acid in, 226
 Fruits, Preserved, Marmalade, etc., Detection of Coal-tar colours in, 276
 ———, Jellies, Jams, and Honey, Polarization of, 248
 Fulton, C., and Crawford, C., Assay of Zinc Precipitates for Gold and Silver, 129
 Fulweiler, W. H., and Smith, E. F., Precipitation and separation of Silver electrolytically, 28
 Funnel, Improved Büchner's, 292
 Fusel Oil in Brandy or other alcoholic liquors, Estimation of, 88
- Galactogen, 59
 Gallate, 58
 Gallenkamp, W., Water-Oven with constant current of dry air, 236
 Gallic Acid in Tanning materials, Detection of, 95
 Gane, E. H., Presence of Copper in powdered Drugs and Chemicals, 158
 Gas, Coal-, Hydrogen sulphide in, Estimation of, 22
 ———, ———, Sulphuretted Hydrogen in, Detection and estimation of minute quantities of, 219
 ——— analysis, Modification of Hempel's apparatus for, 309
 ——— mixtures, Hydrogen in, Determination of, 36
 ——— volumetric analysis, Use of Meyer's vapour density apparatus for, 340
 ——— method of Alkalimetry, 340
 Gases, Analysis of, by combustion, 308
 ———, Heating power of, Determination of the, 23
 Gasterin, 59
 Gastric juice, Detection and estimation of Lactic Acid in the, 160
 Geerligs, H. C. P., Cane-Sugar and the process of its manufacture in Java, 2nd edition, *Review*, 372.
 Geisel, O., Rough estimation of Tin in Tin-dye baths, 304
 Gelatina alba, 59
 Gelatine and Glue, Examination of, 283
 Geranium Oil, Composition of Cannes, 17
 Gerlinger, P., Gasometric estimation of Nitrites in Urine, 97
 Gibson, H. W., and Vulté, H. T., Metallic Soaps from Linseed Oil: an Investigation of their solubilities in certain of the Hydrocarbons, 200
 Gill, A. H., Test for the gumming quality of Lubricating Oils, 228
 ———, and Rowe, A. W., Analytical constants of Neat's-foot, Tallow, and Horse Oils, 227
 Gintl, W. H., Volumetric determination of Iron, 229
 Giudice, G., Selmi's process for the determination of Arsenic in toxicology, 251
 Gladstone, Dr. J. H., Death of, 317
 Glucose in Marmalade, 86
 Glucosides in Vegetable substances, Detection of, by means of Emulsin, 62
 Glue and Gelatine, Examination of, 283
 Gluten, Apparatus and method for determining the quality of, 155
 Glycerides and Fatty Acids, Hexabromides of, 237
 Glycerol, Determination of, 300
 Gnehm, R., Laboratory appliances, 133
 Goeckel, H., Condenser for volatile or noxious liquids, 343
 ———, and Wolfmann, J., Modified Wiborgh Flask, 344
 Goetzl, A., Determination of Oil in Linseed, 330
 Gold, Volumetric estimation of, with thiosulphate, 334
 ——— and Silver, Assay of Zinc precipitates for, 129
 ——— reagent for Colloidal substances, 98
 ———, Silver, and Platinum in alloys, Estimation of, 265

INDEX TO VOLUME XXVII.

xvii

- Gooch, F. A., and Pulman, O. S., Determination of Molybdic Acid after reduction with Hydriodic Acid, 233
 ——— Crucible, Modified, 38
 Gordin, H. M., Notes on the estimation of Berberine, 91
 Gottheil, D., Presence of Arsenic in aqueous Ammonia, 101
 Gotz process, Estimation of Phosphoric Acid in Soil by the, 31
 Governor for use during ultimate analysis, 310
 Granulose (Potato Starch), Estimation of, 159
 Greenish, H. G., Official test for Myrrh, 91
 Grimwood, R. G., and Dibdin, W. J., Detection and estimation of minute quantities of Sulphuretted Hydrogen in Coal-Gas, 219
 Guaiacum test for Blood, 329
 Guaiamar, 57
 Guaiasanol, 57
 Guanidine, Estimation of, 283
 Guess, H. A., Notes on the estimation of Copper by Potassium Permanganate, 303
 Gully, E., Estimation of Phosphoric Acid in Soil by the Götze process, 31
 Gutbier, A., Compounds of Tellurium with Bismuth and the quantitative separation of the two elements, 262
 ———, New gravimetric method of estimating Tellurium, 70
 ———, and Hüller, G., Quantitative separation of Zirconium from Iron, 305
 Gyzander, C. R., Valuation of commercial Aluminium Sulphate, 100
- Habermann, J., and Oesterreicher, A., Detection of free Phosphorus in the presence of Alcohol, 92
 Hale, F. E., Initial action of Iodine and other oxidizing agents in the hydrolysis of Starch and Dextrin, 280
 Halphen, G., Detection of drying and marine Animal Oils, 14
 Halphen's reaction for Cotton-seed Oil, 364
 ——— test for Cotton-seed Oil, Note on, 95
 Hanus, J., Use of Iodine monobromide in the analysis of Fats and Oils, 15
 Harrison, J. B. P., and Richmond, H. D., Rapid estimation of Boric Acid in Butter, 179
 Hase, R., New form of Pyrometer, 311
 Hasterlik, A., Detection of Horseflesh in other Meats, 156
 Hatcher, R. A., Colour reactions of certain Coal-Tar derivatives and Morphine with Formaldehyde and Sulphuric Acid, 96
 ———, Method of determining the solubility of Alkaloids, 159
 Hayes v. Rule and Law, Milk-blended Butter case, 165
 Heat concentrator for ignitions and concentrations, 108
 Hebebrand, A., New method for the determination of Potato Flour in Yeast, 121
 ———, Platinum basin with chimney and draught holes, 342
 Hebert, A., Examination of Civet, 368
 Heffter, A., Influence of Boric Acid on the utilization of Food, 273
 Hehner, O., Action of boiling Hydrochloric Acid upon Arsenic Acid, 268
 ———, Belfield's test for Beef-Stearine in Lard, 247
 ———, Detection of Sulphuretted Hydrogen in Coal-Gas, 223
 ———, Preparation of Arsenic-free Zinc, 261
 ———, Starch in Coffee samples, 116
 ——— and C. W., Fluorides as Butter Preservatives, with observations on their influence on artificial Digestion, 173
 Heintz, A., Valuation of Rubber goods, 200
 Helmer, L. L., and Noyes, W. A., Determination of Sulphur in Iron and Steel, 26
 Hempel, W., Analysis of Gases by combustion, 308

- Hempel, W., Determination of the heating power of Gases, 23
Hempel's apparatus for Gas analysis, Modification of, 309
Henius, M., and Wahl, R., American Handy Book of the Brewing, Malting, and auxiliary Trades, *Review*, 74
Hennen v. Southern Counties Dairies Co. (Ltd.), Milk-blended Butter case, 164
Heraeus, W. C., Cause of the destruction of Platinum crucibles in Phosphate analysis, 372
—————, Modified Gooch crucible, 38
Herberger, —, Alkalinity of crude Sugar, 196
Herscher and Ogier, M.M., Notes on the Serum test for Blood in forensic cases, 278
Hertkorn, J., Estimation of mineral and organic impurities in hard (Varnish) Resins, 302
Herzig and Meyer's method of determining Methyl, 251
Hesse, A., and Zeitschel, O., Estimation of Anthranilic Methyl Ester, 329
Hewitt, J. T., and Moore, T. S., Modification of Zeisel's method for the estimation of Methoxyl groups, 126
Higginson, C. J., Food and Drugs, 2nd edition, *Review*, 136
Hillebrand, W. F., Common errors in the determination of Silica, 289
Hinds, J. I. D., and Cullum, M. L., Photometric determination of Iron, 370
Hirschsohn, E., New reaction for Cholesterin, 331
—————, Quinine and Quinidine, 328
Hoffmann, M. K., and Friedheim, C., Analysis of metallic Molybdenum and its lower oxides, 205
Holde, D., Detection of Mineral Oil in Rosin Oil, 13
————— and Marcusson, M.M., Quantitative estimation of Colophony in Fats, Oils, Soaps, Ceresin, Paraffin, etc., 252
Hollmann, Dr. A. F., Text-book of Inorganic Chemistry, *Review*, 315
Homfray, I., and Ramsay, W., Colorimetric method for determining Oxygen dissolved in Water, 104
Honey, Influence of Cane-Sugar and Dextrin in the Bees' Food upon the composition of the, 326
————, Note on, 355
————, Dextrin, So-called, 90
————, Fruits, Jellies, and Jams, Polarization of, 248
Hopkins, C. G., Methods of standardizing Acid solutions, 36
Horse, Neat's-foot, and Tallow Oils, Analytical Constants of, 227
Horseflesh in other Meats, Detection of, 156
Horsemeat Fat, Constants of, 225
Houghton, Pearks, Gunston, and Tee (Ltd.), v. Milk-blended Butter case, 110
Hubert, A., Composition and analysis of Absinthes, 55
Hübl Iodine solution, 22
—————, boiled, 301
Huldschinsky, E., and Rosenheim, A., Method for the quantitative separation of Nickel and Zinc, 67
—————, Quantitative separation of Zinc and Cobalt, 306
Hunt, F. W., Comparison of methods used to determine the Iodine value of Oils, 198
Hydrargyrum salicylicum, 59
Hydrastine hydrochloride, 59
Hydrochloric acid, Note on the purification of, from Arsenic, 233
—————, Chlorides, Silver, and Phosphates, Gas-volumetric method of determining, 72
————— and Hydrocyanic Acids, Quantitative separation of, 162

INDEX TO VOLUME XXVII.

xix

- Hydrochloric or Nitric Acids, Method for preparing strictly tenth-normal, fifth-normal, etc., 36
- Hydrocyanic Acid, Determination of, 303
 ————— in Sweet Cassava, 9
 ————— and Hydrochloric Acids, Quantitative separation of, 162
- Hydrofluoric Acid, Determinations of the strength of aqueous solutions of, 101
- Hydrogen in Gas mixtures, Determination of, 36
 ————— sulphide in Coal-Gas, Estimation of, 22
 ————— natural Waters, Determination of small quantities of, 104
- β -Hydroxybutyric Acid in Urine, Estimation of, 63
- Ibbotson, F., and Brearley, H., Estimation of Tin in White-metal alloys, 25
 —————, Volumetric Estimation of Manganese, 69
- Ibit, 58
- Ichthargan, 57
- Imbert and Merle, MM., Analysis of commercial Lecithins, 331
- Indican in Urine, Detection of, 63, 160, 200
- Indicator for Acid and Alkali titration, Rubrescin, a new, 228
- Indicators, Use of certain, by artificial light, 22
- Indigotin on Fabrics, Estimation of, 302
- Ingle, H., Reactions taking place in the determination of the Iodine value, 279
- INORGANIC ANALYSIS. ABSTRACTS, 24, 65, 99, 129, 161, 201, 229, 260, 285, 303, 334, 369
- Inorganic Chemistry, Text-book of, *Review*, 315
- Institute of Chemistry, Annual meeting, 135
 —————, Notice of Examinations, 292, 344
 —————, Pass List, 76, 264
- Iodides, Volumetric determination of, in the presence of Bromides and Chlorides, 338
- Iodine, Tincture and solution of, Determination of Alcohol in, 87
 ———, absorption of Oils, Use of Iodine monochloride in the determination of the, 255
 ——— and Bromine, Detection of, in the presence of thiosulphates, 338
 ——— solution, Hubl, 22
 ———, ———, Boiled, 301
 ——— value, Reactions taking place in the determination of the, 279
 ——— of Oils, Comparison of methods used to determine the, 198
- Iodipin, 58
- Iodogallate, 58
- Ipecacuanha, Certain reactions of the Alkaloids of, 345
 ——— root, Valuation of, 328
- Iridium, Reactions of, 204
 ——— and Platinum in Platinum ores, Determination of, 24
- Iron, Copper in, Electrolytic determination of, 201
 ———, Determination of, Photometric, 370
 ———, ———, Volumetric, 229
 ———, Estimation of small quantities of, Volumetric, 304
 ———, Sulphur in, Accurate estimation of, by the evolution method, 206
 ———, ——— cast, Colorimetric estimation of, 206
 ———, ——— pig, Determination of, by Eschka's method, 305
 ———, Use of, for standardizing Permanganate solution, 106
 ——— alloys, Use of Phosphoric Acid in analysis of, 162
 ——— and Steel, Determination of Sulphur in, 26
 ———, ———, Estimation of Titanium in, 263
 ——— from Zirconium, Quantitative separation of, 305
 ——— hydroxide, Solubility of, in solutions of Sodium or Ammonium salicylate, 30

Iron pyrites, Determination of Sulphur in, 206

———. *See also* Ferric and Ferrous

Isomorphine, 58

Jaeckle, H., Composition of human Fat, 361

Jalowetz, E., Notes on the Sulphurous Acid of Beer, 326

James, J. H., and Richey, J. C., Analyses required for an electrolytic Alkali works, 288

Jams, Fruits, Jellies, and Honey, Polarization of, 248

———, Marmalade, etc., Detection of Coal-Tar Colours in, 276

Jeancard and Satie, MM., Composition of Cannes Geranium Oil, 17

———, Proportion of Phenols in Essential Oils of Thyme, 61

Jeffers, E. H., Action of boiling Hydrochloric Acid upon Arsenic Acid, 271

———, and Thorne, L. T., Note on the purification of Hydrochloric Acid from Arsenic, 233

Jefferson, A. McM., Aromatic bases as precipitants for rare earth metals, 288

Jellies, Fruits, Jams, and Honey, Polarization of, 248

Jenkins, —, Alkaline Waters from the Lower Greensand, 218

———, Borneo Mineral Oil, 240

———, Oxidized Oils, 145

Jolles' process for the estimation of Uric Acid in Urine, 97

Jollyman, W. H., Typhoid-polluted Waters, 247

Jorissen, A., Reaction distinguishing between α - and β -Naphthols, 257

Jung, C., Heat concentrator for ignitions and concentrations, 108

——, W., and Schumacher, —, New colorimetric method of determining Mercury in Urine, 368

Kaiser, A., Colour reaction for Wood-fibre, 195

———, Estimation of Potato Starch, 159

"Kaki-Sibu," Composition of, 331

Kallman and Lebbin, MM., Sulphites as Food Preservatives, 55

Katz, J., Estimation of Caffeine, 359

———, Improved Büchner's Funnel, 292

Kauffer, F., Determination of the Methoxyl group in substances containing Sulphur, 126

Kern, E. F., Quantitative separation and determination of Uranium, 28

Kickton, A., Analysis of Dutch Butter, 248

Kippenberger, C., New Pharmaceutical preparations, 57

——— and Stas-Otto methods of detecting Alkaloids in toxicology, Comparison of the, 195

Kirsten, A., Separation and estimation of Cholesterol in Butter Fat, 358

Kissi Pepper, Composition of, 298

Kitt, M., Boiled Hübl Iodine solution, 301

———, Hübl Iodine solution, 22

Kjeldahl method of nitrogen estimation, Experiments with the, 303

——— process, 260

Klaproth, W., and Ort, H., Use of Iron for standardizing Permanganate solution, 106

Klimont, J., Composition of Cacao Butter, 198

———, Occurrence of mixed Glycerides in Cacao Butter, 15

Klinkhardt, A., Melting-point apparatus, 235

Knorre. *See* Von Knorre

Koch, H., Electrolytic determination of Copper in Iron, 201

Kochs, E., and Seyfert, F., Examination of Enamel and the fusibility of Silicates, 34

Koehler and Du Roi, MM., Detection of heated Milk, 89

INDEX TO VOLUME XXVII.

xxi

- Kohnstamm, L., Sherman, H. C., and Danziger, J. L., Temperature reaction of Oils with Sulphuric Acid—Maumené's reaction, 199
- Kolb, A., Separation and precipitation of Thorium, 337
- Kollock, L. G., and Smith, E. F., Electrolytic determination of Molybdenum, 29
 ———, ——— method applied to Uranium, 29
- König, J., Spieckermann, A., and Bremer, W., Decomposition of Food materials by Micro-organisms. Part I.: Fat-consuming Micro-organisms, 10
- Kopp, F. T., Rapid method for the volumetric determination of Molybdenum Steel, 202
- Korn, W., and Dupré, —, Estimation of Sodium thiosulphate, sulphite, and sulphide, 162
- Koss, M., and Meyer, R. J., New method of separating Ceria from mixtures of rare Earths, 232
- Kothwachs, 301
- Krause, —, Improved Platinum Electrode, 311
- Kreis, H., Colour reaction for Thiophen, 258
 ———, Some colour reactions of Fatty Oils, 330, 363
- Kröber, E., and Rimbach, C., Determination of Pentanes and Pentosans, 279
 ———, ———, P., Examination of Paper-making materials by the Pento-
 san method, 301
- Kufferath, A., Use of certain Indicators by artificial light, 22
- Kupffer. *See* Von Kupffer
- Kyle, T. D., and Warwick, A. W., Volumetric estimation of Bismuth in ores, 130
- Laboratory appliances, 133
- Lactic Acid in the Gastric juice, Detection and estimation of, 160
- Ladenburg, A., and Quasig, R., Quantitative determination of Ozone, 35
- Lamar, W. R., and Schieffelin, W. J., Determination of Lithia in Lepidolite, 231
- Landsiedl, A., New Potash apparatus, 208
- Lard, Beef-Stearine in, Belfield's test for, 247
 ———, Fatty Acids of, Molecular equivalent of the insoluble, 362
 ———, Walnut Oil, and Bulgarian Buffalo and Sheep Butter, Some analyses of, 9
- Lauterbach, —, Alkalinity of crude Sugar, 255
- Lavender, Oil of, Salicylic Acid as an Adulterant in, 327
- Law, H. D., Experiments with the Kjeldahl method of nitrogen estimation, 303
- Lead, Electrolytic separation of, from a Phosphoric Acid solution, 229
 ———, Antimony, Tin, and Copper in Alloys, Separation of, 99
- Lebbin and Kallman, MM., Sulphites as Food Preservatives, 55
- Lebeau, P., Action of certain reagents on free Silicon, 131
- Lecithin in Milk, Determination of, 325
- Lecithins, Analysis of commercial, 331
- Leffmann, H., Note on Honey, 355
- LEGAL CASES, 110, 164
- Léger, E., Detection of Aloes in pharmaceutical preparations, 193
 ———, Determination of Aloes in Aloes, 250
- Leidié and Quennessen, MM., Determination of Platinum and Indium in Platinum ores, 24
 ———, Identification of metals of the Platinum group by means
 of Sodium peroxide, 203
- Lemoine and Linossier, MM., Specific Sera for human Blood, 250
- Lemon, Oil of, Notes on, 365
 ——— grass, Oil of, Notes on, 365
- Lepidolite, Determination of Lithia in, 231
- Leuba, A. F., Detection of Bromine and Iodine in the presences of Thiosulphates, 338

- Leuba, A. F., Detection of Nitric Acid in the presence of an alkali-metal ferrocyanide or ferriecyanide, 290
 ———, Influence of Potassium ferrocyanide on the precipitation of Phosphoric Acid, 290
 Leuscher and Reichelmann, MM., Detection of Coal-Tar Colours in Pastry, Cakes, etc., 276
 ———, ———— preserved Fruits (Jams), Marmalade, etc., 276
 ———, ———— Red Sanders (Sandal) wood in Cocoa, 276
 Lewkowitsch, Dr. J., Candle-nut Oil, 62
 ———, Laboratory Companion to Fats and Oils Industries, *Review*, 112
 ———, Oxidized Oils, 139
 Liebermann, —, Apparatus and method for determining the quality of Gluten, 155
 Lindet, L., Determination of Starch in Cereals, 8
 ———, the Casein precipitated by Rennet, 357
 Ling, A. R., Determination of Arsenic, 210
 ———, and Davis, B. F., Malt Diastase, 280
 Linke, H., Formaldehyde and Sulphuric Acid as a test for Alkaloids, 12
 Linn, A. F., Electrolytic separation of Lead from a Phosphoric Acid solution, 229
 Linoleum mass, Constants of, 140
 Linossier and Lemoine, MM., Specific Sera for human Blood, 250
 Linseed, Determination of Oil in, 330
 ——— Oil, Constants of, 140
 ———, Iodine value of, 199
 ———, Metallic Soaps from. An investigation of their solubilities in certain of the Hydracarbons, 200
 ———, Molecular equivalent of insoluble Fatty Acids of, 362
 ——— and its adulterants, 14
 Liquids, Apparatus for extracting, with Chloroform, 109
 Lithia in Lepidolite, Determination of, 231
 Litterscheid, F. M., Volumetric determination of Copper by means of Potassium iodide, 260
 Lloyd, F. J., Alkaline Waters from the Lower Greensand, 218
 ———, Estimation of Boric Acid in Butter, 182
 ———, Fluorides as Butter Preservatives, 177
 Loganine, Identification of, 194
 Lohöfer, W., and Lunge, G., Methods for examining the recovered Soda of Cellulose factories, 71
 Long, J. H., Estimation of Urea in Urine, 21
 Lubricating Oils, Test for the gumming quality of, 228
 Luebert, A. G., Modification of the Sulphuric Acid test for Formaldehyde in Milk, 8
 Lührig, H., Determination of Boric Acid, 34
 Lunge, G., Preparation of Sodium arsenite solution for volumetric analyses, 106
 ———, and Lohöfer, W., Methods for examining the recovered Soda of Cellulose factories, 71
 Mace, Identification of Bombay, 327
 Mach, F., New weighing-out Balance, 134
 Magnesium, Reagent for, 68
 Mai, J., Colorimetric method of determining Arsenious Acid, 335
 ———, and Silberberg, M., Use of Victor Meyer's vapour density apparatus for Gas-volumetric analysis, 340
 Maize Oil, Constants of, 140

INDEX TO VOLUME XXVII.

xxiii

- Makowka, O., Jolles' process for the estimation of Uric Acid in Urine, 97
- Malt Diastase, 280
- Malting, Brewing, and auxiliary Trades, American Handy Book of the, *Review*, 74
- "Mandarin" and "Metanil Yellow," Alleged poisonous properties of, 92, 158
- Manganese, Estimation of, Colorimetric, Ammonium persulphate as a substitute for
Lead peroxide in the, 27
- , —————, New method for the, 68
- , —————, Reagent for, 68
- , —————, Volumetric, 68, 69
- , Zinc, Cadmium, and Cobalt, Volumetric determination of the double
phosphates of Ammonium with, 286
- Manning, C. R., and Benedict, F. G., Chemical method for obtaining reduced
Pressures, 310
- Mannitic Fermentation of Wine, 42
- Manseau, —, Reaction of Urotropine and Piperazine, 12
- Manures, Solubility of Phosphatic, in some Organic Acids, 107
- Marc, R., Apparatus for the Volumetric estimation of Chlorine, 313
- Marcusson, J., Separation of Cholesterin and Phytosterin from mixtures of Fatty and
Mineral Oils, 251
- and Holde, MM., Quantitative estimation of Colophony in Fats, Oils,
Soaps, Ceresin, Paraffin, etc., 252
- Margarine, Amount of Water in—J. Burton and Sons (Ltd.) v. Mattinson, 169
- Margosches, B., and Donath, E., To distinguish the different varieties of Carbon, 284
- Marmalade, Glucose in, 86
- , preserved Fruits (Jams), etc., Detection of Coal-Tar Colours in, 276
- Mason, W. P., Water-supply: considered principally from a sanitary standpoint,
3rd edition, *Review*, 315
- Mattinson, J. Burton and Sons (Ltd.) v. Amount of Water in Margarine, 169
- Maurizio, A., Valuation of Flour for Bakers' use, 249
- Mayer, O., Valuation of Rubber goods, 257
- McIlhiney, P. C., Linseed Oil and its adulterants, 14
- Meade, R. R., Method for preparing strictly tenth-normal, fifth-normal, etc., Hydro-
chloric Acid or Nitric Acid, 36
- Meat Extracts and Vegetable Extracts, Analysis of, 153
- Meats, Composition of preserved, 225
- Meillère, G., Destruction of Organic matter in Toxicological analysis, 125
- , Estimation of Mercury in Antiseptic solutions, 11
- Melting-point apparatus, 235
- Mennechet, A., Adulteration of Pepper with the fruit of *Myrsine Africana* and
Embelia Ribes, 91
- Menthorel, 59
- Mentzel, C., and Arnold, C., Detection of Formaldehyde, 227
- , Old and new reactions of Ozone, 291
- , Rapid detection of Formaldehyde in articles of Food, 192
- Menzies, A. W. C., Sensitiveness of a Thermo-Regulator, 135
- Mercuriol, 59
- Mercury, Determination of, in cases of Poisoning, Notes on the, 299
- , —————, in toxicological work, 361
- assay, 334
- from Copper, Electrolytic separation of, 29
- in Antiseptic solutions, Estimation of, 11
- Urine, New colorimetric method of determining, 368
- Merle and Imbert, MM., Analysis of commercial Lecithins, 331
- Metabolism in man, Influence of Borax on, 273

- Metallic salts, Alkaloids, and Proteids, Precipitation of, by extracts of Coffee and Tea, 259
- “Metanil Yellow” and “Mandarin,” Alleged poisonous properties of, 92, 158
- Methoxyl group in substances containing Sulphur, Determination of the, 126
- groups, Modification of Zeisel’s method for the estimation of, 126
- Methyl, Herzig and Meyer’s method of determining, 251
- Alcohol in Formalin, Detection and estimation of, 60
- n*-Methylbenzoyltetramethyl- γ -oxypiperidin Carbonic Acid Methyl Ester, 123
- Methylenegallate, 58
- Methylsulfonatum, 59
- Metzger, F. J., Preliminary note on a new separation of Thorium, 232
- Meyer, R. J., and Koss, M., New method of separating Ceria from mixtures of rare earths, 232
- and Herzig’s method of determining Methyl, 251
- Micko, K., Analysis of Meat Extracts and Vegetable Extracts, 153
- Micro-organisms, Decomposition of Food Materials by. Part I.: Fat-consuming Micro-organisms, 10
- Milk, Action of Rennet on, in the presence of Boron compounds and other chemicals, 274
- , Colouring matters in fresh and sour, Detection of, 146
- , Composition of, 240
- , Condensed, Method for the estimation of metallic impurities in, 357
- , Formaldehyde in, Modification of the Sulphuric Acid test for, 8
- , Heated, Detection of, 89
- , Human, Characteristics of Butter from, 200
- , ———, Composition of, 242
- , Lecithin in, Determination of, 325
- , Proteids of, 240
- , Sheep’s, Composition of, 324
- , Water in, Detection of added, by means of the nitrate test, 357
- , etc., Notes on the estimation of Phosphoric Acid in, 89
- of inferior quality from a single Cow.—Smithies *v.* Bridge, 171
- regulations, 82
- Miller, R., and Walters, H. E., Accurate estimation of Sulphur in Iron by the Evolution method, 206
- Millon’s reagent, Use of, 129
- Mineral Oil in Rosin Oil, Detection of, 13
- , Determination of, 238
- Minerals rich in Arsenic, Iron, and Lead, Use of Sulphuric Acid as a solvent for, 336
- Mitchell, C. A., *Translator*, Ferments and their actions, *Review*, 73
- , Hexabromides of Glycerides and Fatty Acids, 238
- Mjoen, J. A., Chemical Composition of Norwegian Wood Tar, 127
- Molybdenum, Vanadium from, Separation of, 286
- and its lower oxides, Analysis of, 205
- in Molybdenum Steel and Ferro-Molybdenum, Volumetric determination of, 305
- Steel, Note on the determination of, 205
- Steel, Rapid method for the volumetric determination of, 202
- Molybdic Acid, Determination of, after reduction with Hydriodic Acid, 233
- Monazite sand, Rapid method for estimating Thorium in, 207
- Monoiodothymol, 57
- Moody, S. E., and Peters, C. A., Determination of Persulphates, 131
- Moor, —, Tincture of Opium, 354

INDEX TO VOLUME XXVII.

xxv

- Moore, T. S., *and* Hewitt, J. T., Modification of Zeisel's method for the estimation of Methoxyl groups, 126
- Mörner, C. T., Quantitative determination of small quantities of Arsenic, 335
- Morphia in decomposing bodies, Detection of, 124
- Morphine, Characteristic reaction of, 57
- *and* Coal-Tar derivatives, Colour reaction of certain, with Formaldehyde *and* Sulphuric Acid, 96
- in Opium, Determination of, Note on Reichard's "Silver" method for the, 117
- , Estimation of, by means of ammoniacal Silver chloride, 11
- Morris, G. H., Death of, 76
- Mühlhaeusser, O., Cloudiness which occurs on filtering Zinc sulphide, 306
- Müller, A., Estimation of Hydrogen sulphide in Coal-Gas, 22
- , Examination of Glue and Gelatine, 283
- , J. A., Standardization of Uranium solutions for Phosphate analysis, 106
- , W., New volumetric method for the determination of free *and* combined Sulphuric Acid, 290
- Munro, Dr. J. M. H., Colour of Water, 297
- , Detection of artificial Colouring matters in fresh *and* sour Milk, 152
- Munson, L. S., *and* Tolman, L. M., Refractive indices of Salad Oils—correction for Temperature, 298
- Murphy, A. J., Detection of Arsenic, 211
- Musk, Oil of, Notes on liquid, 365
- Mustard Oil, Determination of, 197
- Myrcenol, 18
- Myrrh, Official test for, 91
- Myttenaere. *See* De Myttenaere
- Name. *See* Van Name
- Naphthenes *and* Olefines in Petroleum, 61
- α - *and* β -Naphthols, Reaction distinguishing between, 257
- Naphthylate, 58
- Nargol, 59
- Naske, T., Colorimetric estimation of Sulphur in cast Iron, 206
- Nasse, O., Use of Millon's reagent, 129
- Naylor, W., Estimation of dissolved Oxygen in Water, 308
- Neat's-foot, Tallow, *and* Horse Oils, Analytical constants of, 227
- Neroli, Oil of, Notes on, 365
- Oil, Characteristics of, from different sources, 16
- Nestler, A., Detection of spent Tea-leaves by the sublimation test, 153
- Neuberg, C., *and* Wohlgemuth, J., Quantitative estimation of Arabinose, 196
- , K., Kjeldahl process, 260
- Neumann, R. O., Influence of Borax on Metabolism in Man, 273
- Newlands, B. E. R., Detection of Arsenic, 211
- Nickel, Detection of small quantities of, in the presence of Cobalt, 27
- , Reagent for, 68
- *and* Cobalt, Modification of Rose's method of separating, 285
- Zinc, Method for the quantitative separation of, 67
- Salts, Action of reducing Sugars on, in alkaline solution, 13
- Nieloux's method of determining Alcohol, 125
- Nicolaysen, C., Apparatus for sublimations, 133
- Nicotine in Tobacco, Estimation of, 12
- Nikaldo, Y., Volumetric method for the estimation of Sulphuric Acid in soluble sulphates, 307

Nirvanin, 58

Nissenson, H., and Crotogino, F., Strong Sulphuric Acid as a solvent in the analysis of Tin alloys, 369

—————, Use of Sulphuric Acid as a solvent for minerals rich in Arsenic, Iron, and Lead, 336

Nitric Acid, Colorimetric estimation of, 101

—————, Detection of, in the presence of an alkali-metal ferrocyanide or ferricyanide, 290

————— or Hydrochloric Acid, Method for preparing strictly tenth-normal, fifth-normal, etc., 36

————— and Nitrous Acids, Behaviour of, with Brucine and Sulphuric Acid, 162

Nitrites in Urine, Gasometric estimation of, 97

Nitrogen estimation, Experiments with the Kjeldahl method of, 303

Nitrous and Nitric Acids, Behaviour of, with Brucine and Sulphuric Acid, 162

Nobele. *See* De Nobele

Noll, H., Colorimetric estimation of Nitric Acid, 101

Noyes, W. A., and Helmer, L. L., Determination of Sulphur in Iron and Steel, 26

Nucleol, 59

Nutmeg, Analysis of, 54

Nux Vomica, Tincture of, 88

OBITUARY :

Abel, Sir F., 293

Gladstone, Dr. J. H., 317

Morris, Dr. G. H., 76

Oesterreicher, A., and Habermann, J., Detection of free Phosphorus in the presence of Alcohol, 92

Ogier and Herscher, MM., Notes on the Serum test for Blood in forensic cases, 278

Oil, Almond, Molecular equivalent of insoluble Fatty Acids of, 362

—, Arachis, Iodine value of, 199

—, Candle-nut, 62

—, Castor, Iodine value of, 199

—, ———, Molecular equivalent of insoluble Fatty Acids of, 362

—, Coconut, in true Butter, Detection of, 8

—, Cod, Iodine value of, 199

—, Colza, Molecular equivalent of insoluble Fatty Acids of, 362

—, Cotton-seed, Constants of, 140

—, ———, Halphen's reaction for, 364

—, ———, ——— test for, Notes on, 95

—, ———, Iodine value of, 199

—, ———, Molecular equivalent of insoluble Fatty Acids of, 362

—, Dogfish liver, Iodine value of, 199

—, Earth-nut, Detection of Sesame Oil in, 363

—, ———, Iodine value of, 199

—, Fusel, in Brandy and other Alcoholic liquors, Estimation of, 88

—, Geranium, Composition of Cannes, 17

—, Linseed, Constants of, 140

—, ———, Iodine value of, 199

—, ———, Metallic Soaps from. An investigation of their solubilities in certain of the Hydrocarbons, 200

—, ———, Molecular equivalent of insoluble Fatty Acids of, 362

—, ———, and its adulterants, 14

—, Maize, Constants of, 140

—, Mineral, in Rosin Oil, Detection of, 13, 238

INDEX TO VOLUME XXVII.

xxvii

- Oil, Mustard, Determination of, 197
 —, Neroli, Characteristics of, from different sources, 16
 —, Olive, Iodine value of, 199
 —, Rape, Constants of, 140
 —, —, Iodine value of, 199
 —, Rosin, Mineral Oil in, Detection of, 13, 238
 —, Seal, Iodine value of, 199
 —, Sesame, in Earth-nut Oil, Detection of, 363
 —, Shark, Iodine value of Arctic, 199
 —, Tomato-seed, Characteristics of, 61
 —, Walnut, Lard, and Bulgarian Buffalo and Sheep Butter, Some analyses of, 9
 —, Whale, Iodine value of, 199
 — in Linseed, Determination of, 330
 — of Aniseed, Notes on, 366
 — Bergamot, Notes on, 364
 — Bystropogon Origanifolius, Notes on, 366
 — Lavender, Salicylic Acid as an adulterant in, 327
 — Lemon, Notes on, 365
 — —-grass, Notes on, 365
 — Musk, Notes on liquid, 365
 — Neroli, Notes on, 365
 — Peppermint, Colour reactions of, 277
 — —, Notes on Italian, 365
 — Petit-grain, Notes on, 365
 — Turpentine, Acetic Acid test for, 277
 Oils, Animal, Detection of drying and marine, 14
 —, Camphor, Notes on, 364
 —, Essential, Notes on some, 364
 —, —, of Thyme, Proportion of Phenols in, 61
 —, Fatty, Some colour reactions of, 330, 363
 —, Iodine absorption of, Use of Iodine monochloride in the determination of the, 255
 —, — value of, Comparison of methods used to determine the, 198
 —, Lubricating, Test for the gumming quality of, 228
 —, Neat's foot, Tallow, and Horse, Analytical constants of, 227
 —, Olive, Note on the use of Bechi or Silver nitrate test on, 198
 —, Oxidized, 139
 —, Salad, Refractive indices of. Correction for temperature, 298
 —, Vegetable, in Animal Fats, Detection of, by means of the Phytosterol acetate test, 94
 — and Fats, Use of Iodine monobromide in the analysis of, 15
 — Industries, Laboratory Companion to, *Review*, 112
 —, Fats, Soaps, Ceresin, Paraffin, etc., Quantitative estimation of Colophony in, 252
 Olefines and Naphthenes in Petroleum, 61
 Oleic Acid, Molecular equivalent of, 362
 Olive Oil, Iodine value of, 199
 — Oils, Note on the use of the Bechi or Silver nitrate test on, 198
 Opium, Analysis of preparations containing, 350
 —, Morphine in, Determination of, Note on Reichard's "Silver" method for the, 117
 —, —, Estimation of, by means of ammoniacal Silver chloride, 11
 —, Tincture of, 354
 — preparations, Identification of, 194
 Oppenheimer, C., *Translated by C. A. Mitchell*, Ferments and their actions, *Review*, 73
 Orchard, R., Detection of Sulphuretted Hydrogen in Coal-Gas, 223

- Organic Analysis, New method of, 333
 ORGANIC ANALYSIS. ABSTRACTS, 12, 60, 93, 125, 159, 195, 227, 251, 279, 300, 329, 361
 Organic matter, Destruction of, in toxicological analysis, 125
 Orphol, 58
 Ort, H., and Klaproth, W., Use of Iron for standardizing Permanganate solution, 106
 Osmium, Reactions of, 203
 Ostwald Burette-Calibrator, Modified form of the, 37
 Otto. *See* Stas-Otto
 Oven, Drying, for temperatures exceeding 100° C., 134
 ———, Water, with constant current of dry air, 236
 Ox Tallow, Molecular equivalent of insoluble Fatty Acids of, 362
 Oxalic Acid in Urine, Determination of, 332
 Oxides, Solubility of certain metallic, in solutions of Sodium or Ammonium salicylate, 30
 Oxygen, Use of, in the ignition of Precipitates, 108
 ——— dissolved in Water, Colorimetric method for determining, 104
 ——— in Water, Estimation of dissolved, 308
 Ozone, Old and new reactions of, 291
 ———, Quantitative determination of, 35

 Palladium, Reactions of, 204
 Palmitic Acid, Molecular equivalent of, 362
 Panzer, T., Behaviour of Calcium hypophosphite in the Animal system, 124
 ———, Detection of Morphia in decomposing bodies, 124
 Paoline, V., and Balbiano, L., Olefines and Naphthenes in Petroleum, 61
 Paper-making materials, Examination of, by the Pentosan method, 301
 Paraffin, Ceresin, Fats, Oils, and Soaps, Quantitative estimation of, 252
 Parr, S. W., Note on the volumetric determination of Copper, 260
 Parry, E. J., Analysis of Shellac, 21
 Parsons, C. L., Identification and properties of α - and β -Eucaïne, 123
 Partheil, A., and Rose, J. A., Direct gravimetric determination of Boric Acid, 103
 Pastry, Cakes, etc., Detection of Coal-Tar Colours in, 276
 Patrick, G. E., and Stuart, D., Starch as an adulterant or drier in Butter, 121
 Patterson, T. S., Modified form of Thermo-Regulator, 234
 Pearks, Gunston, and Tee (Ltd.), Bayley *v.*, Milk-blended Butter case, 167
 ———, *v.* Houghton, Milk-blended Butter case, 110 ;
 v. Ward, Milk-blended Butter case, 164
 Pentanes and Pentosans, Determination of, 279
 Pentosans and Pentanes, Determination of, 279
 Pentoses in Urine, Determination of, in the presence of Glycuronic Acids, 256
 Pepper, Adulteration of, with the fruit of *Myrsine Africana* and *Embelia Ribes*, 91
 ———, Analysis of black, 54
 ———, Composition of Kissi, 298
 Peppermint, Oil of, Colour reactions of, 277
 ———, Notes on Italian, 365
 Peptone in Urine, Detection of, 64
 Pergami, A., and Tortelli, M., Molecular equivalent of insoluble Fatty Acids, 362
 Persulphates, Analysis of alkali, 71
 ———, Determination of, 131
 ———, Use of, in analysis, 307
 Petermann, A., Detection of Acetanilide in Urine, 20
 Peters, C. A., and Moody, S. E., Determination of Persulphates, 131
 Petit-grain, Oil of, Notes on, 365

INDEX TO VOLUME XXVII.

xxix

- Petkow, N., Some analyses of Bulgarian Buffalo and Sheep Butter, Lard, and Walnut Oil, 9
- Petroleum, Olefines and Naphthenes in, 61
- Petrosulfol, 57
- Pfaff, A., Estimation of Formaldehyde, 329
- Pharmaceutical Preparations, New, 57
- Phenanthrene and Carbazol in Anthracene, Detection of, 366
- Phenols in Essential Oils of Thyme, Proportion of, 61
- or Alcohols, Estimation of, 60
- Phillips, F. C., Determination of Hydrogen in Gas mixtures, 36
- Phosphate analysis, Cause of the destruction of Platinum Crucibles in, 372
- Phosphates, Chlorides, Hydrochloric Acid, and Silver, Gas-volumetric method of determining, 72
- Phosphatic Manures, Solubility of, in some Organic Acids, 107
- Phosphoric Acid, Detection of, in cases of Poisoning, 92
- , Determination of, as phospho-molybdic anhydride, 32
- , Influence of Potassium ferrocyanide on the precipitation of, 290
- , Use of, in analysis of Iron alloys, 162
- in Milk, etc., Notes on the estimation of, 89
- Soil, Estimation of, by the Götz process, 31
- Phosphorus, Detection of free, in the presence of Alcohol, 92
- Phosphoryl-quinine, 58
- Photographic dry plates, Technical estimation of Silver bromide in, 369
- Phytosterin and Cholesterin from mixtures of Fatty and Mineral Oils, Separation of, 251
- (Cholesterin) from Fats, Quantitative separation of, 16
- Pierpaoli, C., Determination of Mercury in toxicological work, 361
- Pigments, Estimation of the covering power of, 64
- Piper Farnesoni-Heckel, Composition of, 298
- Piperazine and Urotropine, Reaction of, 12
- Plants, Determination of Sulphur in, 201
- Platinum, Reactions of, 204
- and Iridium in Platinum ores, Determination of, 24
- basin with chimney and draught holes, 342
- crucibles, Cause of the destruction of, in Phosphate analysis, 372
- electrode, Improved, 311
- , Gold, and Silver in alloys, Estimation of, 265
- group, Identification of metals of the, by means of Sodium peroxide, 203
- ores, Determination of Platinum and Iridium in, 24
- Poisoning, Mercury in cases of, Notes on the Determination of, 299
- , Phosphorus in cases of, Detection of, 92
- Polenske, E., Amount of Boric Acid present in Hams which have been stored in powdered Borax or Boric Acid, 274
- , Behaviour of Borax when distilled with Methyl Alcohol, 34
- Pollacci, —, Reagent for Albumin in Urine, 257
- Potash apparatus, New, 208
- bulbs, New design for, 235
- Potassium and Sodium, Determination of, as pyrosulphate, 70
- percarbonate as a reagent, 108
- tetroxalate and Sodium oxalate, Stability of, as standard substances for volumetric analysis, 308
- Potato Flour in Yeast, New method for the determination of, 121
- Starch (Granulose), Estimation of, 159
- Pozzi-Escot, E., Composition of "Kaki-Sibu," 331

- Pozzi-Escot, E., Nicloux's method of determining Alcohol, 125
 Precipitates, Use of Oxygen in the ignition of, 108
 Pregl, F., Apparatus for extracting liquids with Chloroform, 109
 ———, Simple apparatus for drying substances under reduced pressure at any required temperature, 132
 Preservatives, Fluorides as Butter, with observations on their influence on artificial Digestion, 173
 ———, Food, 83
 ———, ———, Boric Acid and its Salts as, Use of, 271
 ———, ———, Sulphites as, 55
 Preserved Meats, Composition of, 225
 Pressures, Chemical method for obtaining reduced, 310
 Proteids, Alkaloids, and Metallic Salts, Precipitation of, by extracts of Coffee and Tea, 259
 ———, Bromine and Iodine values of, 18
 ——— of Milk, 240
 Prothière, E., Volumetric determination of Zinc, 229
 Prussian Blue in Spent Oxide, Determination of, 339
 Prussic Acid in Sweet Cassava, 9
 Psychotrine, Reactions of, 349
 Public Analyst, Status of the, 78
 Pulman, O. S., and Gooch, F. A., Determination of Molybdic Acid after reduction with Hydriodic Acid, 232
 Pumps, Water-, Non-return valve for, 38
 Pyrazolonum phenyldimethylicum salicylicum, 59
 Pyrites, Iron, Determination of Sulphur in, 206
 Pyrometer, Wanner's new form of, 311
 Quasig, R., and Ladenburg, A., Quantitative determination of Ozone, 35
 Quennessen and Leidié, MM., Determination of Platinum and Iridium in Platinum ores, 24
 ———, Identification of metals of the Platinum group by means of Sodium peroxide, 203
 Quinine and Quinidine, New reaction for, 328
 Raczkowski. *See* De Raczkowski
 Ragsine, A., Engler-Ragsine Viscosimeter, 38
 Raikow, P. N., Apparatus for cold and hot Filtrations, 342
 ———, New Areo-pyknometer, 371
 Raimann, E., Determination of traces of Sugar in Urine, 19
 Ramage, H., Volumetric estimation of Manganese, 68
 Ramovino, C., Estimation of Silicon in rich Ferro-Silicons by means of peroxide of Sodium, 232
 Ramsay, W., and Homfray, I., Colorimetric method for determining Oxygen dissolved in Water, 104
 Ranwez, F., Detection of Coconut Oil in true Butter, 8
 Rape Oil, Constants of, 140
 ———, Iodine value of, 199
 Raspberry juice and red Wines, Detection of Cherry juice in, 10
 Ratner, C., Determination of Tin, and its separation from Antimony, 336
 Raumer. *See* Von Raumer
 Reale, E., Preparation of a fine grained Filter paper, 163
 Regulator, Pressure, for Distillations under diminished pressure, 163
 ———, Thermo-, Modified form of, 234

xxxi

- Regulator, Thermo-, Sensitiveness of a, 135
Reichard, C., Estimation of Morphine in Opium by means of ammoniacal Silver chloride, 11
Reichard's "Silver" method for the determination of Morphine in Opium, Note on, 117
Reichelmann and Leuscher, MM., Detection of Coal-Tar Colours in Pastry, Cakes, etc., 276
_____, _____ preserved Fruits (Jams), Marmalade, etc., 276
_____, _____ Red Sanders Wood in Cocoa, 276
Rennet, Action of, on Milk in the presence of Boron compounds and other chemicals, 274
Resaldol, 57
Resins, Estimation of mineral and organic impurities in hard (Varnish), 302
Rhodium, Reactions of, 204
Richards, J. W., Notes on some Blowpipe tests, 107
_____, P. A. E., Estimation of Platinum, Gold, and Silver in alloys, 265
_____, T. W., Modification of Hempel's apparatus for Gas-analysis, 309
_____, and Singer, S. K., Quantitative separation of Hydrochloric and Hydrocyanic Acids, 162
Richmond, H. D., Colour of Water, 296
_____, Composition of Milk, 240
_____, Detection of artificial Colouring matters in fresh and sour Milk, 152
_____, Examination of Coffee made into a beverage, 116
_____, Fluorides as Butter Preservatives, 178
_____, and Harrison, J. B. P., Rapid Estimation of Boric Acid in Butter, 179
Richter, E., Determination of Uric Acid in Urine, 332
Rideal, Dr. S., Colour of Water, 297
_____, Detection of artificial Colouring matters in fresh and sour Milk, 151
_____, Examination of Water from some Typhoid-polluted Wells, 245
_____, Sewage and the Bacterial purification of Sewage, 2nd edition, *Review*, 74
Rieger, F., Notes on the estimation of Phosphoric Acid in Milk, etc., 89
Riegler, E., Gas-volumetric estimation of Chlorides and Phosphates in Urine, 19
_____, _____ method of Alkalimetry, 340
_____, _____ determining Chlorides, Hydrochloric Acid, Silver, and Phosphates, 72
_____, _____ free and combined Sulphuric Acid and free and combined Carbon dioxide, 102
Rigler. *See* Von Rigler
Rijn. *See* Van Rijn
Rimbach, C., and Krober, E., Determination of Pentanes and Pentosans, 279
_____, P., and Krober, E., Examination of Paper-making materials by the Pentosan method, 301
Ritchey, J. C., and James, J. H., Analyses required for an electrolytic Alkali works, 288
Ritter, E., Quantitative separation of Cholesterin from Fats, 16, 198
Robertshaw, C. D., and Walker, J. H., Determination of Mineral Oil in Rosin Oil, 238
Roborat, 59
Roborin, 59
Roeser, P., Determination of Mustard Oil, 197
Rose, J. A., and Partheil, A., Direct gravimetric determination of Boric Acid, 103
Rosenfeld, A., and Silber, J., Rubrescin, a new Indicator for Acid and Alkali titration, 228

- Rosenheim, A., Precipitation of Ammonium vanadate by means of Ammonium chloride, 371
 ———, and Huldshinsky, E., Method for the quantitative separation of Nickel and Zinc, 67
 ———, Quantitative separation of Zinc and Cobalt, 306
 Rose's method of separating Nickel and Cobalt, Modification of, 285
 Rosin Oil, Mineral Oil in, Detection of, 13
 ———, Determination of, 238
 Ross, R., Determination of Carbon in Steel by direct combustion, 5
 Rossel, D., Detection of Blood-colouring matters in Urine, 367
 Rossing, A., Separation of Copper, Lead, Antimony, and Tin in alloys, 99
 Rost, E., Action of Boric Acid and Borax on Human beings and animals, 271
 Rothenbach, F., Detection of "Vinegar Essence" in Fermentation Vinegar, 359
 Rowe, A. W., and Gill, A. H., Analytical constants of Neat's-foot, Tallow, and Horse oils, 227
 Rubber goods, Valuation of, 200, 257
 Rubidium and Cæsium, Determination of, as bisulphate, 70
 Rubner, —, Action of Boric Acid on the Digestion, 272
 Rubrescin, a new Indicator for Acid and Alkali titration, 228
 Rule and Law, Hayes v., Milk-blended Butter case, 165
 Rung, F., and Binz, A., Estimation of Indigotin on Fabrics, 302
 Rupp, E., Iodometric valuation of the peroxides of Barium, Sodium, etc., 338
 ———, and Schiedt, A., Iodometric determination of Ferro- and Ferri-cyanides, 291
 Russell, H. L., and Turneure, F. E., Public Water Supplies, *Review*, 39
 Ruthenium, Reactions of, 203
- Saccharin and Salicylic Acid in Foods, Detection of, 277
 Salad Oils, Refractive indices of, Correction for temperature, 298
 Salicylcarboxylic Acid, Ethyl Ester of, 57
 Salicylic Acid and Saccharin in Foods, Detection of, 277
 ——— as an adulterant in Oil of Lavender, 327
 Salipyrin, 59
 Salkowski, E., Behaviour of Araban towards Fehling's solution, 301
 Salol, 57
 Sandal (Sanders) Wood in Cocoa, Detection of red, 276
 Sander, K., Determination of Silver in the residues from the distillation of Zinc, 99
 Satie and Jeancard, MM., Proportion of Phenols in Essential Oils of Thyme, 61
 Sausages, Detection of artificial Colouring matters in, 91
 Sauvaitre, —, Characteristics of Butter from human Milk, 200
 Schidrowitz, Dr. P., Detection of artificial Colouring matters in fresh and sour Milk, 152
 ———, ———— Arsenic, 211
 ———, Mannitic Fermentation of Wine, 42
 ———, Note on Reichard's "Silver" method for the determination of Morphine in Opium, 117
 Schiedt, A., and Rupp, E., Iodometric determination of Ferro- and Ferri-cyanides, 291
 Schieffelin, W. J., and Lamar, W. R., Determination of Lithia in Lepidolite, 231
 Schimmel and Co., Notes on some Essential Oils, 364
 Schindelmeiser, J., Behaviour of Selenious Acid in the Marsh apparatus, 339
 Schindler-Zwickau, P., Identification of Bombay Mace, 327
 Schmidt, W., Automatic apparatus for Titrations, 343
 Schnell, J., Detection of Sesame Oil in Earth-nut Oil, 363
 Schüle, G., Modified Soxhlet, 312

INDEX TO VOLUME XXVII.

xxxiii

- Schumacher, —, *and* Jung, W., New Colorimetric method of determining Mercury in Urine, 368
- Schuster, A., Iodine numbers of Beef Fat, 157
- Schwartz, R., Determination of Prussian Blue in Spent Oxide, 339
- Scientific Boarding-house, Government, 313
- Scott-Smith, G. E., *and* Allen, A. H., Analysis of preparations containing Opium, 350
 —————, Certain reactions of the Alkaloids of Ipecacuanha, 345
- Seal Oil, Iodine value of, 199
- Seiler, F., *and* Verda, A., Volumetric estimation of small quantities of Iron, 304
- Seitter, E., *and* Vanino, L., Quantitative estimation of Formaldehyde, 60
- Selenious Acid, Behaviour of, in the Marsh apparatus, 339
- Selmi's process for the determination of Arsenic in toxicology, 251
- Septicidin, 59
- Sera, Specific, for human Blood, 250
- Sesame Oil in Earth-nut Oil, Detection of, 363
- Sewage and the Bacterial purification of Sewage, *Review*, 2nd edition, 74
- Seyda, A., Determination of Phosphoric Acid as Phosphomolybdic anhydride, 32
- Seyfert, F., *and* Kochs, E., Examination of Enamel and the fusibility of Silicates, 34
- Shark Oil, Iodine value of Arctic, 199
- Sheep and Buffalo Butter, Lard, and Walnut Oil, Some analyses of Bulgarian, 9
- Sheep's Milk, Composition of, 324
- Shellac, Adulteration of, 96
 ———, Analysis of, 21
- Sieffeld, M., Detection of added Water in Milk by means of the nitrate test, 357
 ———, ——— heated Milk, 89
- Silber, J., *and* Rosenfeld, A., Rubrescin, a new Indicator for Acid and Alkali titration, 228
- Silberberg, M., *and* Mai, J., Use of Victor Meyer's vapour density apparatus for Gas-volumetric analysis, 340
- Silica, Common errors in the determination of, 289
- Silicates, Fusibility of, Examination of Enamel and the, 34
- Silicon, Action of certain reagents on free, 131
 ——— in rich Ferro-Silicons, Estimation of, by means of peroxide of Sodium, 232
- Silver, Determination of, in the residues from the distillation of Zinc, 99
 ———, Precipitation and separation of, electrolytically, 28
 ——— and Gold, Assay of Zinc precipitates for, 129
 ——— bromide in photographic dry plates, Technical estimation of, 369
 ———, Chlorides, Hydrochloric Acid, and Phosphates, Gas-volumetric method of determining, 72
 ———, Gold, and Platinum in alloys, Estimation of, 265
 ——— nitrate or Bechi test on Olive Oils, Note on the use of the, 198
- Singer, S. K., *and* Richards, T. W., Quantitative separation of Hydrochloric and Hydrocyanic Acids, 162
- Sjollema, B., *and* Tulleken, J. E., Halphen's reaction for Cotton-seed Oil, 364
- Smith, E. F., *and* Fulweiler, W. H., Precipitation and separation of Silver electrolytically, 28
 ————— Kollock, L. G., Electrolytic determination of Molybdenum, 29
 —————, ————— method applied to Uranium, 29
 ————— Sparre, C. R., Electrolytic separation of Mercury from Copper, 29
 —————. *See also* Scott-Smith *and* Wood-Smith
- Smithies *v.* Bridge, Milk of inferior quality from a single Cow, 171
- Soaps, Metallic, from Linseed Oil. An investigation of their solubilities in certain of the hydrocarbons, 200

- Soaps, Fats, Oils, Ceresin, Paraffin, etc., Quantitative estimation of Colophony in, 252
- SOCIETY OF PUBLIC ANALYSTS, PROCEEDINGS OF THE, 1, 41, 77, 113, 137, 173, 209, 237, 265, 294, 345
- Soda of Cellulose factories, Methods of examining the recovered, 71
- Sodium and Potassium, Determination of, as pyrosulphate, 70
- arsenite solution, Preparation of, for volumetric analysis, 106
- , Barium, etc., Peroxides of, Iodometric valuation of the, 338
- biiodosalicylate, 58
- oxalate and Potassium tetroxalate, Stability of, as standard substances for volumetric analysis, 308
- thiosulphate, Preservation of volumetric solutions of, 106
- , sulphite, and sulphide, Estimation of, 162
- Soil, Phosphoric Acid in, Estimation of, by the Götze process, 31
- Soils, Sulphuric Acid in, Determination of, 307
- Sollmann, T., Precipitation of Alkaloids, metallic salts, and Proteids by Extracts of Coffee and Tea, 259
- Soltsein, P., Note on Halphen's test for Cotton-seed Oil, 95
- Sontag, G., Quantitative estimations of the excretion of Boric Acid from the body, 273.
- Southern Counties Dairies Co. (Ltd.), *Hennen v.*, Milk-blended Butter case, 164
- Soxhlet, Modified, 312
- Spaeth, E., Detection of artificial Colouring matters in Sausages, 91
- Spare, C. R., and Smith, E. F., Electrolytic separation of Mercury from Copper, 29
- Spent Oxide, Determination of Prussian Blue in, 339
- Spica, M., Detection of Gallic Acid in Tanning materials, 95
- , ———— Saccharin and Salicylic Acid in Foods, 277
- Spices, Detection of powdered Coconut shell in ground, 54
- Spieckermann, A., Bremer, W., and König, J., Decomposition of Food materials by Micro-organisms. Part I.: Fat-consuming Micro-organisms, 10
- Springer, E., Extraction of Alkaloids from acid solutions and salts of the Alkaloids from aqueous solutions, 367
- , ———— alkaline solutions, 366
- Squire, P. W., and Caines, C. M., Acetic Acid test for Oil of Turpentine, 277
- Stahre's reaction for Citric Acid, 196
- Starch, Potato (granulose), Estimation of, 159
- and Dextrin, Initial action of Iodine and other oxidizing agents in the hydrolysis of, 280
- in Cereals, Determination of, 8
- Stas-Otto and Kippenberger methods of detecting Alkaloids in toxicology, Comparison of the, 195
- Stearic Acid, Molecular equivalent of, 362
- Stearine, Beef-, in Lard, Belfield's test for, 247
- Steel, Carbon in, Determination of, by direct combustion, 1
- , Molybdenum, Rapid method for the volumetric determination of, 202
- , ————, and Ferro-Molybdenum, Volumetric determination of Molybdenum in, 305
- , ———— in, Note on the determination of, 205
- and Iron, Sulphur in, Determination of, 26
- , Titanium in, Estimation of, 263
- Stehman, J. V. R., Determination of Sulphur in pig iron by Eschka's method, 305
- Steudel, H., Isolation of Amido-Sugars, 13
- Stevenson, Dr. T., Detection of Arsenic, 210
- Strittar, M. J., and Zeisel, S., New method for the determination of Cellulose, 256
- Struve, H., Cholin test for Cognac, 275

INDEX TO VOLUME XXVII.

xxxv

- Strychnine, Bromine test for, 122
 Strzyzowski, C., Detection of Indican in Urine, 63
 Stuart, D., and Patrick, G. E., Starch as an adulterant or drier in Butter, 121
 Sublimations, Apparatus for, 133
 Sugar, Alkalinity of crude, 196, 255
 —, Cane-, and the process of its manufacture in Java, 2nd edition, *Review*, 372
 —, —, in Vegetable substances, Detection of, by means of Invertase, 62
 — and Colouring matter of Apricots, 325
 — in Urine, Determination of traces of, 19
 Sugars, Amido-, Isolation of, 13
 —, Identification of, 255
 Sulphates, Volumetric method for the estimation of Sulphuric Acid in soluble, 307
 Sulphites as Food Preservatives, 55
 Sulphur, Analysis of crude, 306
 — in cast Iron, Colorimetric estimation of, 206
 — Iron, Accurate estimation of, by the evolution method, 206
 — and Steel, Determination of, 26
 — pyrites, Determination of, 206
 — pig Iron, Determination of, by Eschka's method, 305
 — Plants, Determination of, 201
 Sulphuretted Hydrogen in Coal-Gas, Detection and estimation of minute quantities of, 219
 Sulphuric Acid, Free and combined, Gas-volumetric method of determining, 102
 —, —, —, New volumetric method for the determination of, 290
 —, Use of, as a solvent for minerals rich in Arsenic, Iron, and Lead, 336
 — in Soils, Determination of, 307
 — soluble sulphates, Volumetric method for the estimation of, 307
 — Ether, Estimation of Alcohol in, 56
 Sulphurous Acid in dried Fruits, Estimation of, 226
 — of Beer, Notes on the, 326
 Sutherst, W. F., Solubility of Phosphatic Manures in some Organic Acids, 107
 Syrup of Ferrous phosphate with Quinine and Strychnine, 87

 Tallow, Ox, Molecular equivalent of insoluble Fatty Acids of, 362
 —, Neat's-foot, and Horse Oils, Analytical constants of, 227
 Tannin, Determination of, 301
 Tanning materials, Detection of Gallic Acid in, 95
 Tapis. *See* De Fuentes Tapis
 Tar, Coal-, Colours in Pastry, Cakes, etc., Detection of, 276
 —, —, —, preserved Fruits (Jams), Marmalade, etc., Detection of, 276
 —, Wood, Chemical composition of Norwegian, 127
 Tartar, Cream of, Estimation of Tartaric Acid in, 119
 —, —, Spurious, 118
 Tartaric Acid in Cream of Tartar, Estimation of, 119
 Taylor, R. L., Modification of Rose's method of separating Nickel and Cobalt, 285
 Tea-leaves, Detection of spent, by the sublimation test, 153
 Tellurium, New gravimetric method of estimating, 70
 —, with Bismuth, Compounds of, and the quantitative separation of the two elements, 262
 Terpene Alcohols from their Esters, Separation of, by means of Sodium salicylate, 93
 Tervet, J. N., New design for Potash bulbs, 235
 Thallium, Determination of, in the Thallous state, 287

- Thermometer, Beckmann's, with Kühn's additional scale, 311
 Thermo-regulator, Modified form of, 234
 ———, Sensitiveness of a, 135
 Theulier, E., Characteristics of Neroli Oil from different sources, 16
 Thibalt, P., and Vournasos, A. C., New method of Organic analysis, 333
 Thio-antipyrine, 58
 Thiophen, Colour reaction for, 258
 Thiopyrin, 58
 Thomas, V., Determination of Thallium in the Thallous state, 287
 ———, Volumetric determination of Iodides in the presence of Bromides and Chlorides, 338
 Thorium, Preliminary note on a new separation of, 232
 ———, Separation and precipitation of, 337
 ———, in Monozite sand, Rapid method for estimating, 207
 Thorne, Dr. L. T., Detection of Arsenic, 211
 ———, and Jeffers, E. H., Note on the purification of Hydrochloric Acid from Arsenic, 233
 Thyme, Essential Oils of, Proportion of Phenols in, 61
 Thymol, Volumetric determination of, 257
 Tin, Determination of, and its separation from Antimony, 336
 — alloys, Strong Sulphuric Acid as a solvent in the analysis of, 369
 —, Antimony, Copper, and Lead in alloys, Separation of, 99
 — in Tin-dye baths, Rough estimation of, 304
 — White-metal alloys, Estimation of, 25
 Tincture of Cachou, Identification of, 194
 ——— Opium, 354
 Titanium in Steel and Iron, Estimation of, 263
 Titrations, Automatic apparatus for, 343
 Tobacco, Nicotine in, Estimation of, 12
 Tocher, J. F., Oxidation and estimation of Uric Acid and Urates, 333
 Todeschini, G., Estimation of Arsenic in toxicology, 250
 Tolman, L. M., Note on the use of the Bechi or Silver nitrate test on Olive Oils, 198
 ———, and Munson, L. S., Refractive indices of Salad Oils—Correction for temperature, 298
 Tomato-seed Oil, Characteristics of, 61
 Tortelli, M., and Pergami, A., Molecular equivalent of insoluble Fatty Acids, 362
 Toth, J., Estimation of Nicotine in Tobacco, 12
 TOXICOLOGICAL ANALYSIS. ABSTRACTS, 92, 124, 194, 250, 278, 298, 342, 371
 Treadwell, F. P., Potassium percarbonate as a reagent, 108
 Triiodo-*m*-Cresol, 57
 Trillat and Forestier, MM., Composition of Sheep's Milk, 324
 Truchot, P., Detection of traces of Vanadium, and the separation of Vanadium from Molybdenum, 286
 ———, Electrolytic determination of Vanadium, 263
 Tschugaen, L., New Colour reaction for Cholesterol, 94
 Tuberculosamine tuberculate, 58
 Tulleken, J. E., and Sjollem, B., Halphen's reaction for Cotton-seed Oil, 364
 Turneure, F. E., and Russell, H. L., Public Water Supplies, *Review*, 39
 Turpentine, Adulteration of, with "White Spirit," 127
 ———, Larch, and Venice Turpentine, 254
 ———, Oil of, Acetic Acid test for, 277
 Typhoid-polluted Wells, Examination of Water from some, 245
 Tyrosine, Identification of, 194.

INDEX TO VOLUME XXVII.

xxxvii

- Ultimate analysis, Governor for use during, 310
 Uranium, Electrolytic method applied to, 29
 ———, Quantitative separation and determination of, 28
 ——— Salts and Hydrogen peroxide, Colour reaction of, 288
 ——— solutions, Standardization of, for Phosphate analysis, 106
 Urates and Uric Acid, Oxidation and Estimation of, 333
 Urea in Urine, Estimation of, 21
 Uric Acid and Urates, Oxidation and estimation of, 333
 ——— in Urine, Determination of, 332
 ———, Estimation of, Jolles' process for the, 97
 Urine, Acetanilide in, Detection of, 20
 ———, Albumin in, Reagent for, 257
 ———, Ammonia in, Estimation of, 20
 ———, Blood-colouring matters in, Detection of, 367
 ———, Chlorides and Phosphates in, Gas-volumetric estimation of, 19
 ———, β -Hydroxybutyric Acid in, Estimation of, 63
 ———, Indican in, Detection of, 63, 160, 200
 ———, Mercury in, New colorimetric method of determining, 368
 ———, Nitrites in, Gasometric estimation of, 97
 ———, Oxalic Acid in, Determination of, 332
 ———, Pentoses in, Detection of, in the presence of Glycuronic Acids, 256
 ———, Peptone in, Detection of, 64
 ———, Sugar in, Determination of traces of, 19
 ———, Urea in, Estimation of, 21
 ———, Uric Acid in, Determination of, 332
 ———, ———, Estimation of, Jolles' process for the, 97
 Urotropine and Piperazine, Reaction of, 12
 Usunify, 59
 Utz, —, Refractometer number for Cod-liver Oil, 327

 Valenta, E., Estimation of the covering power of Pigments, 64
 Valve for Water-pumps, Non-return, 38
 Van Name, R. G., Determination of Copper as Cuprous thiocyanate in the presence
 of Bismuth, Antimony, Tin, and Arsenic, 285
 ———, Influence of Hydrochloric Acid on the precipitation of Cuprous
 thiocyanate, 161
 Van Rijn, Dr. J. J. L., Composition of Dutch Butter, *Review*, 136
 Vanadium, Detection of traces of, 286
 ———, Determination of, 286
 ———, ———, Electrolytic, 263
 ——— from Molybdenum, Separation of, 286
 Vanino, L., Gravimetric determination of Formaldehyde, 93
 ———, and Seitter, E., Quantitative estimation of Formaldehyde, 60
 Varnish Resins, Estimation of mineral and organic impurities in Lard or, 302
 Vaubel, W., Bromine and Iodine values of Proteids, 18
 Vegetable extracts and Meat extracts, Analysis of, 153
 ——— Oils in Animal Fats, Detection of, by means of the Phytosterol acetate
 test, 94
 ——— substances, Detection of Cane-Sugar in, by means of Invertase, 62
 ———, ——— Glucosides in, by means of Emulsin, 62
 Verda, A., and Seiler, F., Volumetric estimation of small quantities of Iron, 304
 Verley, A., and Bölsing, F., Estimation of Alcohols or Phenols, 60
 Vinegar, Analysis of Apple, 122
 ——— Essence in Fermentation Vinegar, Detection of, 359

- Vitali, D., Guaiacum test for Blood, 329
 ———, Notes on the detection of Mercury in cases of Poisoning, 299
 Voelcker, E. W., Artificial Coffee berries, 116
 ———, Dr. J. A., Address to the Society of Public Analysts, 78
 ———, Alkaline Waters from the Lower Greensand, 218
 ———, Colour of Waters, 296
 Von Alfthan, K., Detection of Pentoses in Urine in the presence of Glycuronic Acids, 256
 Von Knorre, G., Determination of Carbon in the presence of Osmium, 234
 ———, New method for the estimation of Manganese, 68
 Von Kupffer, A., and Dupre, —, Stability of Potassium tetroxalate and Sodium oxalate as standard solutions for volumetric analysis, 308
 Von Raumer, —, Influence of Cane-Sugar and Dextrin in the Bees' Food upon the composition of the Honey, 326
 Von Rigler, G., Application of Serum diagnosis to the examination of Food, 157
 Votocek, E., Identification of Sugars, 255
 Vournasos, A. C., Detection and estimation of Lactic Acid in the Gastric juice, 160
 ———, and Thibault, P., New method of Organic analysis, 333
 Vozárik, A., Estimation of Guanidine, 283
 Vulté, H. T., and Gibson, H. W., Metallic Soaps from Linseed Oil. An investigation of their solubilities in certain of the Hydrocarbons, 200
 Wacker, L., Non-return valve for Water-pumps, 38
 Wahl, R., and Henius, M., American Handy Book of the Brewing, Malting, and auxiliary Trades, *Review*, 74
 Walker, J., and Warburton, G., Hexabromides of Glycerides and Fatty Acids, 237
 ———, J. H., and Robertshaw, C. D., Determination of Mineral Oil in Rosin Oil, 238
 Walnut Oil, Lard, and Bulgarian Buffalo and Sheep Butter, Some analyses of, 9
 Walters, H. E., Ammonium persulphate as a substitute for Lead peroxide in the colorimetric estimation of Manganese, 27
 ———, and Miller, R., Accurate estimation of Sulphur in Iron by the evolution method, 206
 Wanner's new form of Pyrometer, 311
 Warburton, G., and Walker, J., Hexabromides of Glycerides and Fatty Acids, 237
 Ward, Pearks, Gunston, and Tee (Ltd.) v., Milk-blended Butter case, 164
 Warren, B. W. J., Estimation of Boric Acid in Butter, 182
 Warwick, A. W., and Kyle, T. D., Volumetric Estimation of Bismuth in ores, 130
 Water, Oxygen dissolved in, Colorimetric method for determining, 104
 ———, ——— in, Estimation of dissolved, 308
 ——— from some Typhoid-polluted Wells, Examination of, 245
 ——— Oven with constant current of dry Air, 236
 ——— Pumps, Non-return valve for, 38
 ——— Supplies, Public, *Review*, 39
 ——— Supply: considered principally from a sanitary standpoint, 3rd edition, *Review*, 315
 Waterhouse, G. B., Estimation of Titanium in Steel and Iron, 263
 Waters, Alkalies in, Indirect estimation of, 137
 ———, Barium in, Presence of, containing Sulphates, 231
 ———, Colours of, Note on a simple apparatus for approximately estimating the, 294
 ———, Hydrogen sulphide in natural, Determination of small quantities of, 104
 ———, Oxygen absorption of natural, Determination of the, 341
 ——— from the Lower Greensand, Alkaline, 212
 Wax, Bees-, Effect of bleaching on the constants of, 300

INDEX TO VOLUME XXVII.

xxxix

- Weber, J. E., Salicylic Acid as an adulterant in Oil of Lavender, 327
- Weiss, J., Comparison of the Stas-Otto and Kippenberger methods of detecting Alkaloids in toxicology, 195
- Weitzel, A., Action of Rennet on Milk in the presence of Boron compounds and other chemicals, 274
- Wells, Examination of Water from some Typhoid-polluted, 245
- Welmans, P., Colour reactions of Oil of Peppermint, 277
- Whale Oil, Iodine value of, 199
- Wharton, F. M., *and* Chattaway, W., Note on a convenient apparatus for the chemical and bacteriological examination of the atmosphere, 243
- , J. C., Bromine test for Strychnine, 122
- White, A. H., Volumetric estimation of Alumina and free and combined Sulphuric Acid in Alums, 230
- , J., Spurious Cream of Tartar, 118
- White-metal Alloys, Estimation of Tin in, 25
- Wiborh Flask, Modified, 344
- Wijs, J. J. A., Use of Iodine monochloride in the determination of the Iodine absorption of Oils, 255
- Wilkins, W., *and* Alcock, F. H., Test for Phenacetin, 360
- Williams, C. B., Determination of Sulphuric Acid in Soils, 307
- Windisch, K., Detection of Cherry juice in Raspberry juice and red Wines, 10
- Wine, Mannitic Fermentation of, 42
- Wines and Raspberry juice, Detection of Cherry juice in red, 10
- Winkler, L. W., Behaviour of Nitric and Nitrous Acids with Brucine and Sulphuric Acid, 162
- , Determination of Albuminoid and Proteid Ammonia, 281
- , ——— small quantities of Hydrogen sulphide in natural Waters, 104
- Winkler, L. W., Determination of the Oxygen absorption of natural Waters, 341
- Winteler, F., Determinations of the strength of aqueous solutions of Hydrofluoric Acid, 101
- Winton, A. L., Detection of powdered Coconut shell in ground Spices, 54
- Wohlgemuth, J., *and* Neuberger, C., Quantitative estimation of Arabinose, 196
- Wöhlk, A., Stahre's reaction for Citric Acid, 196
- Wolff, J., Solubility of certain metallic oxides in solutions of Sodium or Ammonium salicylate, 30
- Wolfmann, J., *and* Goeckel, H., Modified Wiborh Flask, 344
- Wood-fibre, Colour reaction for, 195
- Tar, Chemical composition of Norwegian, 127
- Wood-Smith, —, Detection of Arsenic, 211
- Wyrouboff, G., Separation of Beryllium, 287
- Xereform, 58
- Yeast, Potato Flour in, New method for the determination of, 121
- Yellow, Metanil, and Mandarin, alleged poisonous properties of the Colours, 92, 158
- Zdarek, E., Volumetric determination of Thymol, 257
- Zeisel, S., *and* Fanto, R., Determination of glycerol, 300
- ——— Strittar, M. J., New method for the determination of Cellulose, 256
- Zeisel's method for the estimation of Methoxyl groups, Modification of, 126
- Zeitschel, O., *and* Hesse, A., Estimation of Anthranilic Methyl Ester, 329
- Zinc, Determination of Silver in the residues from the distillation of, 99
- , Preparation of Arsenic-free, 261
- , Reagent for, 68

- Zinc, Volumetric determination of, 229
 ——— and Cadmium, Detection of, by blow-pipe tests, 337
 ——— ——— Cobalt, Quantitative separation of, 306
 ——— ——— Nickel, Method for the quantitative separation of, 67
 ———, Manganese, Cadmium, and Cobalt, Volumetric determination of the double phosphates of Ammonium with, 286
 ——— precipitates, Assay of, for Gold and Silver, 129
 ——— sulphide, Cloudiness which occurs on filtering, 306
 Zirconium from Iron, Quantitative separation of, 305
 Zolman, L. M., Polarization of Fruits, Jellies, Jams, and Honey, 248
 Zöpfchen, H., Use of Oxygen in the ignition of Precipitates, 108
 Zsigmondy, R., Gold reagent for Colloidal substances, 98
 Zwickau. *See* Schindler-Zwickau