

SUBJECT INDEX
INDUSTRIAL AND ENGINEERING CHEMISTRY
VOLUME 17—1925

ACCELERATORS. <i>See</i> Rubber.			
Accident Records and How to Keep Them. C. B. Auel	1254	Oxygen-Aging Test Symposium.....	860
Acetic Anhydride, Analysis of. W. S. Calcott, F. L. English, and O. C. Wilbur.....	942	Publicity. Chemistry Changing the World. Editorial.....	554
ACETONE:		Chicago Section Distributes List of Speakers. A Useful Section Activity. Editorial.....	3
By Distillation of Wood with Lime. A. W. Schorger.....	944	Cliques. Sell Your Hammer and Buy a Horn. Editorial.....	114
Estimation of—in Presence of Alcohol by a Vapor Pressure Method. E. A. Vuilleumier.....	174	Committee Reports:	
Methanol and—and Their Mixtures, Effect of Nitrogen and Carbon Dioxide Dilutions on Explosion Limits of. H. Crouch and E. K. Carver.....	641	Corrosion.....	543
Acetyl-H-Acid and H-Acid, Comparative Study of Azo Dyes Made with. W. W. Lewers with Alexander Lowy.....	1289	Guaranteed Reagents, Report, 760; Recommended Specifications for Analytical Reagents Chemicals.....	756
ACID:		Industrial Alcohol.....	542
Corrosion of Metals. Effect of Oxygen and Velocity. Corrosion Symposium. W. G. Whitman and R. P. Russell.....	348	Occupational Diseases in Chemical Trades (Abstract).....	654
Free Fatty, Determination of—in Bodied Linseed Varnishes and Oils. L. M. Larsen and W. J. Young.....	277	Standard Apparatus.....	654
Hazards in the Handling and Transportation of. The Safety Factor. M. F. Crass.....	1056	Standardization of Biological Stains.....	542
Acids and Bases, Standardizing—with Borax. M. G. Mellon and V. N. Morris.....	145	Corrosion Situation and Its Relation to Work of. Corrosion Symposium. W. M. Corse.....	335
Aggregates, Apparatus for Determining the Specific Gravity of. F. H. Tucker.....	517	Directory, Our New. Editorial.....	113
Air, Concentration of Argon from—by Fractional Liquefaction. G. R. Fonda, F. W. Reynolds, and S. Robinson.....	676	Division of Cellulose Chemistry. Chemical Products of Cellulose Division of Industrial and Engineering Chemistry. Corrosion Symposium.....	33
Airplane Dusting of Cotton, New Studies on.....	389	Division of Organic Chemistry:	
Air, Secondary. <i>See under</i> Flame Symposium.		Papers for:	
Air-Vapor Mixtures, Apparatus for Preparing—of Constant Composition. W. P. Yant and F. E. Frey.....		Symposium on Organic Chemistry, Held Jointly with Rochester Section.....	654
ALCOHOL:		Division of Rubber Chemistry:	
Compensation of Temperature and Instrument Factors in Determination of Alcoholic Content. E. A. Vuilleumier.....	692	Oxygen Aging Test Symposium.....	860
Cramton Bill. The Worm Should Turn. Editorial.....	201	Meeting with Akron Section.....	1295
Estimation of Acetone in Presence of—by a Vapor Pressure Method. E. A. Vuilleumier.....	332	Report of Physical Testing Committee.....	535
Ethyl Alcohol-Water Distillation Curve, Calculation of Points in. E. Oman and A. Gunnellus.....	174	Endowment Fund:	
Family.....	822	As Memorial. Editorial.....	334
Human Physiology and. F. G. Benedict.....	423	Editorial.....	1102
Industrial, Report of A. C. S. Committee on. M. H. Ittner, chairman.....	542	Endowment Progress. Editorial.....	664
Methyl. <i>See</i> Methanol.	964	Faith Demonstrated. Editorial.....	113
Motor Fuel from Molasses. I—Use of Cane Molasses for Manufacture of Motor Fuel. E. C. Freeland	1158	Fiftieth Anniversary:	
II—Use of—and—Ether Mixtures as Motor Fuels. E. C. Freeland and W. G. Harry.....	35	In 1926. Editorial.....	112
Pharmacology of. Reid Hunt.....	196	Priestley Home. Editorial.....	223
Aldehydes, Systematic Detection of Traces of. E. C. Crocker.....		Semicentennial of the Society. Editorial.....	1103
ALKALI:		Iowa City, Regional Meeting in Ithaca Meeting. Storage of Coal and Spontaneous Combustion Round Table Discussion.....	322
Determinations, Use of Iron or Nickel Crucibles for. A. W. Epperson and R. B. Rudy.....		Local Section Activities.....	115
Free—in Silicated Soaps. A. Edeler.....		Local Section Organized in Chicago.....	1103
Solutions. <i>See</i> Solutions.		Local Sections' Cooperation with Libraries.....	93
ALLOYS:		Los Angeles Meeting:	
Alloying Tungsten with Aluminium Containing Ten Per cent Copper. M. R. Whitmore and F. T. Sisco.....		Organic Division Papers for:	
Aluminium, Cast, Corrosion of Some—and a Method of Protection. Corrosion Symposium. A. C. Zimmerman.....		President's Address. Industry and Academic Research. J. F. Norris.....	654
Aluminium-Chromium, Properties and Structure of. F. T. Sisco and M. R. Whitmore.....		News Service Publicity. Winning the Public. Editorial.....	1088
Aluminium, Normal Sand-Cast, Containing Small Amounts of Silicon. Samuel Daniels.....		Northern New Jersey Section Formed from New Jersey Chemical Society. Unity in Chemistry. Editorial.....	334
Copper-Nickel, Oxidation of—at High Temperatures. Corrosion Symposium. N. B. Pilling and R. E. Bedworth.....		Prize Essay Contest:	
Copper-Zinc, Accelerated Corrosion Tests of—by Salt Spray. Corrosion Symposium. W. H. Bassett and H. A. Bedworth.....		"And Some Fell into Good Ground." Editorial.....	442
Nonferrous, Determination of Aluminium in. G. E. F. Lundell and H. B. Knowles.....		Of 1925. Editorial.....	884
Alumina, Adsorption of Vapors by. L. A. Munro and F. M. G. Johnson.....		Rochester Section, Symposium on Organic Chemistry, Held Jointly with Division of Organic Chemistry.....	1295
ALUMINUM:		Section of Gas and Fuel Chemistry:	
Alloying Tungsten with—Containing Ten Per cent Copper. M. R. Whitmore and F. T. Sisco.....	15	Flame Symposium.....	1215
Alloys. <i>See</i> Alloys.	359	Storage of Coal and Spontaneous Combustion Round Table Discussion.....	115
"Aluminum Paint," Some Special Properties of. J. D. Edwards and R. I. Wray.....		Service to Individuals. The Basis of Our Success. Editorial.....	334
Determination of—in Nonferrous Alloys. G. E. F. Lundell and H. B. Knowles.....		Tulsa Meeting. Editorial.....	1102
Amalgamating Metal. <i>See</i> Metal.		AMERICAN CONTEMPORARIES:	
Amalgam, Sodium, Large-Scale Preparation of—in the Laboratory. R. R. Read and Carl Lucarini.....		Bartlett, Edwin Julius. L. B. Richardson.....	761
AMERICAN CHEMICAL INDUSTRIES:		Eastman, George. C. E. K. Mees.....	541
Corning Glass Works.....		Jenkins, Edward Hopkins. E. M. Bailey.....	874
Dorr Company. William Russell.....	650	McCay, LeRoy Wiley. William Foster.....	652
Dow Chemical Company.....	1293	Osborne, Thomas B. E. H. Jenkins.....	433
E. I. du Pont de Nemours and Company. C. L. Reese.....	983	Parr, Samuel Wilson. Edward Bartow.....	985
Powers-Weightman-Rosengarten Company.....	1093	Pease, Frederick Noah. M. E. McDonnell.....	1092
Procter and Gamble Company.....	99	Sabin, Alvah Horton. G. W. Thompson.....	212
Vanadium Corporation of America and Its Predecessor, the American Vanadium Company. B. D. Saklatwalla.....	872	Van Slyke, Lucius L. R. W. Thatcher.....	1203
AMERICAN CHEMICAL SOCIETY:		American Engineering Standards Committee Issues Year Book.....	792
1926 a Banner Year for American Chemistry and. Editorial.....	480	American Institute of Chemical Engineers, English Meeting of 2-Aminoanthraquinone from Phthalic Anhydride and Chlorobenzene, Preparation of. Max Phillips.....	979
Akron Section Meeting with Rubber Division.....	1102	Aminosalicylic Acid, Succinic Acid, Hydrocinnamic Acid, and <i>p</i> -Phenylenediamine, Electrolytic Preparation of. J. F. Norris and E. O. Cummings.....	721
Baltimore Meeting:	1295	AMMONIA:	
Corrosion Symposium.....		Liquid, Solubility of a Mixture of Hydrogen and Nitrogen in. A. T. Larson and C. A. Black.....	715
Editorial.....		Mineral and Organic, Determination of—in Fertilizers. F. B. Carpenter and H. L. Moxon.....	265
Flame Symposium.....		Oxidation, Temperature Control in. G. A. Perley and R. P. Smith.....	258
		Solubilities of Sulfur Dioxide and—in Water. T. K. Sherwood.....	745
		AMMONIA, SYNTHETIC:	
		Catalyst Testing, Basis of New Industries. D. H. Killeffer.....	789
		Claude Patent for—Owned by Lazote, Inc.....	985
		Direct—Plant. F. A. Ernst, F. C. Reed, and W. L. Edwards.....	775
		Du Pont Company Enters—Field.....	198
		Editorial. (Correction, 883) Preparation of Fused Iron Oxide for Use as a Catalyst. A. T. Larson and C. N. Richardson.....	772
		Ammonium Nitrate, Destruction of Muscle Shoals—by Fire and Explosion. C. E. Munroe.....	971
		Analysis, Importance in Industry. Editorial.....	884
		Anhydrite, Hydration of. Marie Farnsworth.....	967
		Aniline, Determination of—in Aqueous Solutions. C. M. Carson.....	62

Anthracene, Study of Höchst Test for Determination of. F. H. Rhodes, M. L. Nichols, and C. W. Morse.....	839	Bromine Compounds, Increased Imports of.....	201
ANTIFREEZES:		Bronze, Rapid Determination of Phosphorus in. W. E. Baulieu, Jr. Buret and Flask, Automatic—for Standard Alkali Solutions. H. R. McMillin.....	908
Ethylene Glycol. G. O. Curme, Jr., and C. O. Young.....	1117	Bunsen Cone, Mechanism of Combustion in. Flame Symposium. E. W. Rembert and R. T. Haslam.....	592
Glycerol, Freezing Points of—and Its Aqueous Solutions. L. B. Lane.....	925	Bunsen Burner, Origin of. L. M. Dennis.....	1233
Antigua, Fuel Oil Made Dutiable in.....	808	Burners, Gas, Conditions Which Govern the Efficiency of. Flame Symposium. S. W. Parr.....	651
ANTIKNOCK Compounds. <i>See</i> Detonation and Knock Suppressors.		Burnham Chemical Co., Denial of Mails to. At Last. Editorial.	1215
Antimony-Lead System—II. R. S. Dean, W. E. Hudson, and M. F. Fogler.....	1246	Business, Relation between Science and. Handwriting on the Wall. A. D. Little.....	774
APPARATUS:		Butter Fats. <i>See</i> Fats.	857
Constant-Level Regulating Device. R. L. Stehle.....	466	By-Products, Exchange of. A Clearing House for Chemical Manufacturers. A. S. Behrman, 856. Editorial.....	1212
Constant-Level Water Baths. H. J. Wing.....	630	BOOK REVIEWS: 104, 214, 324, 434, 544, 655, 765, 875, 986, 1096	1296
Device for Maintaining a Slow, Constant Flow of Liquid. Charles Van Brunt.....	966	Acid-Resisting Metals, by Tunay. R. J. McKay.....	768
Device for Saving Supernatant Fluids: Distilling Apparatus. F. A. Wiggers.....	141	Agitating, Stirring, and Kneading Machinery, by Seymour. H. B. Vollrath.....	544
Extraction, Continuous. P. A. Houseman and C. K. Swift.....	830	Allen's Commercial Organic Analysis. Volume III—Hydrocarbons, Bitumens, Naphthalene and Its Derivatives, Anthracene and Its Associates, Phenols, Aromatic Acids, Gallic Acid and Its Allies, Phthalic Acid and the Phthalicins, Modern Explosives, by Sadler, Lathrop, and Mitchell. F. C. Whitmore.....	875
Laboratory Pure Culture. F. M. Hildebrandt.....	1279	Aluminothermic, by Goldschmidt. B. D. Saklatwalla.....	1296
Recent Additions to Tools for Research. Report of Developments by Members of Association of Scientific Apparatus Makers of U. S. A.....	1014	Analyse der Fette und Wachse. I.—Methoden, by Grün. G. S. Jamieson.....	1297
Tools of the Chemical Engineer. <i>See</i> Tools of the Chemical Engineer. (<i>See also under appropriate name.</i>)		Animal as a Converter of Matter and Energy, by Armsby and Moulton. P. F. Trowbridge.....	986
l-Arabinose, Preparation of—from Mesquite Gum. Ernest Anderson and Lila Sands.....	1257	Applied Electro-Chemistry, by Allmand and Ellingham. Buckner Speed.....	545
Argentina, Dye Competition Keen in.....	614	A. S. T. M. Standards Adopted in 1925. F. P. Veitch.....	1296
Argentina Requires Chemical Analysis on Imported Foodstuffs.....	856	A. S. T. M. Standards, Issued Triennially, 1924. F. P. Veitch.....	546
Argon, Concentration of—from Air by Fractional Liquefaction. G. R. Fonda, F. W. Reynolds, and S. Robinson.....	676	A. S. T. M. Tentative Standards for 1924. P. H. Bates.....	435
Aromatic Compounds, Industrial Poisoning by. D. H. Killeffer.....	820	Bacteriology. A Textbook on Fundamentals, by Thomas. F. R. Georgia.....	1206
ARSENIC:		Beacon Lights of Science. A Survey of Human Achievement from the Earliest Recorded Times, by Van Wagener. C. A. Browne	104
Arsenated Petroleum Oil as a Wood Preservative. W. L. Tanner	167	Bibliography of Bibliographies on Chemistry and Chemical Technology, 1900–1924, compiled by West and Berolzheimer. A. R. Cade.....	1097
Determination of—in Steel. A. E. Cameron (Correction, 1186).	965	Bituminous Substances, by Spielman. A. C. Fieldner.....	545
Production, 1924, Breaks All Records.	130	Cadmium: Its Metallurgy, Properties, and Uses, by Budgen. J. P. Hubbell.....	217
Production of—in Brazil.	151	Cane Sugar and Its Manufacture, by Prinsen-Geerligs. G. L. Spencer.....	547
Arsenical Preparations, Adherent. William Moore.....	465	Chapter in American Education. Rensselaer Polytechnic Institute, 1824–1924, by Baker. E. F. Smith.....	105
Arsenicals, Organic, Future Research in Field of. W. G. Christiansen	1270	Chemical Aspects of Immunity, by Wells. M. H. Fischer.....	215
Arsenic or Arsenic Acids? W. A. Silvester, G. W. Raiziss (Book Review, Raiziss, 656).....	1295	Chemical Engineering Catalog (10th edition), edited by Turner.	1207
Artificial Silk. <i>See</i> Silk.		Chemical Synonyms and Trade Names. A Dictionary and Commercial Handbook, by Gardner. J. F. Couch.....	1297
Asbestine, Determination of—in Lithopone Paint. F. G. Germuth	1150	Chemical Thermodynamics. An Introduction to General Thermodynamics and Its Application to Chemistry, by Partington. W. L. Miller.....	215
Asphalt, Amalgamating Metal Used in Molding. L. J. Catlin.....	521	Chemische Betriebskontrolle in der Fettindustrie, by Dubowitz. David Wesson.....	877
ASSOCIATION Executives' Conference. The Basis of Our Success. Editorial.....	334	Chemische Reaktionen in Gallerten, by Liesegang. C. R. McKee	436
Autoclave Not Necessary by Schidrowitz Method. P. Schidrowitz, J. F. Smith. [See THIS JOURNAL, 16, 1024 (1924)].	806	Chemistry of Engineering Materials, by Leighou. F. C. Vilbrandt.....	988
AUTOMOBILES:		Chemistry in Every Day Life, by Emery, Downey, Davis, and Boynton. W. D. Bonner.....	214
Automobile Finishing Varnishes. W. T. Pearce.....	1214	Chemistry in Modern Life, by Arrhenius. R. E. Rose.....	1097
Crank-Case Oil. <i>See</i> Oil.	152	Chemistry in the Service of Man, by Findlay. E. F. Smith.....	545
Factors Influencing Carbon Formation in Automobile Engines. J. W. Orelup and O. I. Lee.....	731	Chemistry of Enzyme Actions, by Falk. H. C. Sherman.....	216
Laboratory Tests on Finishes. H. C. Mougey.....	411	Chemistry of Wheat Flour, by Bailey. F. C. Blanck.....	1097
Solvents and Automobile Lacquers. D. B. Keyes.....	558	Combustion, published by American Gas Association. J. T. Ward	876
Aviation, Chemistry in. Your Landing Field. Editorial.....	882	Comprehensive Treatise on Inorganic and Theoretical Chemistry. Vol. V—B, Al, Ga, In, Ti, Sc, Ge, and Rare Earth Metals, C (Part I), by Mellor. Graham Edgar.....	325
BAKING, Chemistry in. Daylight. Editorial.....	1214	Constituents of Coal Tar, by Spielman. J. M. Weiss.....	327
Balata, Studies of Physical Properties of—and Rubber. C. R. Park	152	Copper and Alloys (Chart), by Hughes. H. W. Gillett.....	1207
Baltimore Meeting. <i>See</i> American Chemical Society.		Corrosion-Resistant, Heat-Resistant and Electrical-Resistance Alloys. Symposium by American Society for Testing Materials. R. J. McKay.....	987
Baly, Outdooring. Editorial.....	2	Cotton Cellulose. Its Chemistry and Technology, by Hall. H. LeB. Gray.....	326
Bancroft, W. D. More Verses from Wilder. D. B. H. E. Armstrong	762	Cyclopedia of Perfumery, by Parry. E. K. Nelson.....	987
Banking, Chemistry in. Editorial.....	994	Distillation in Practice, by Elliott. Carl Haner.....	988
Barberries, Use Salt to Kill.	666	Distillation Principles, by Elliott. W. L. McCabe.....	657
Barium Dioxide, Evaluation of. E. C. Wagner.....	972	Dust Hazard in Industry, by Gibbs. H. R. Brown.....	545
Bartlett, Edwin Julius. American Contemporaries. L. B. Richardson.....	761	Elements of Sugar Refining, by Bardorf and Ball. E. C. Freeland	1205
Bases and Acids, Standardizing—with Borax. M. G. Mellon and V. N. Morris.....	145	Engineering Nonferrous Metals and Alloys, by Aitchison and Barclay with introduction by Goodwin. W. H. Bassett.....	215
Benedict Sugar Method. <i>See</i> Sugar.		Engineers and Chemists. Status and Employment in Industry, reported by International Labor Office. A. C. Oliphant.....	875
Benson Generator. Steam Generation. Editorial.....	443	Examination of Water and Water Supplies, by Thresh and Beal. A. M. Buswell.....	657
BENZENE:		Eye Hazards in Industrial Occupations, by Resnick and Carris. L. W. Fetzter.....	217
Import Duty on—, Gasoline, Naphtha, etc., Increased.	246	Factory Practice in the Manufacture of Azo Dyes, by O'Brien. M. L. Crossley.....	546
One Hundred Years Old. Editorial.....	662	Foundations of the Universe, by Luckiesh. J. M.	765
Benzol Poisoning, Reports by Subcommittee of National Safety Council.....	911	Fours électriques et Chimie, published by the Edmond de Rothschild Foundation for the Development of Scientific Research. Charles Lormand.....	877
Biological Stains. <i>See</i> Stains.		Fuel: Solid, Liquid, and Gaseous, by Brame. A. R. Powell.....	544
Biology, New Journal of.		Gaskampf und die chemischen Kampfstoffe, by Meyer. R. L. Sebastian.....	1297
Bituminous Mixtures, Apparatus for Determining Specific Gravity of Aggregates from. F. H. Tucker.....	517	Gasoline—What Everyone Should Know about It, by Boyd. G. A. Burrell.....	655
Bleaching Powder, Lime for Manufacture of.	376	Histologie der tierischen Haut, by Kiintzel. J. A. Wilson.....	1207
Bohemium. Another Claim for Discovery of Missing Element 75.	1271	History of Bleaching, by Higgins. J. C. Hebdon.....	324
Boiler, Submerged Flame. Steam Generation. Editorial.....	443	Industrial Chemistry. Vol. I—Inorganic, Vol. II—Organic, by Rogers. C. L. Parsons.....	1298
Boilers, Welding on. S. W. Miller.....	1169	Introduction to Organic Chemistry, by Lowy and Harrow. J. F. Norris.....	106
BOILER WATER TREATMENT:		Introduction to Organic Research, by Reid. C. J. West.....	216
Apparatus for Control of—Based on Chemical Equilibrium. R. E. Hall, H. A. Otto, and H. A. Jackson.....	409	Kalkbrennen, mit besonderer Berücksichtigung des Schachtofens mit Mischieuerung, und die Gewinnung von Kohlensäurehaltigen Gasen, by Block. G. J. Fink.....	327
Surface Tension as a Factor in the Priming of Steam Boilers. E. B. Millard and T. E. Mattson. (French, 970).....	685		
System of—Based on Chemical Equilibrium. R. E. Hall.	283		
Treatment of Boiler Feed Water by a Zeolite Softening System. S. T. Powell and J. H. Wolfe.....	584		
Bolivia, International Industrial Exposition in.	1197		
Bombs, Monel Metal, Determination of Heating Value of Coal in. J. C. Geniesse and E. J. Soop.....	524		
Bone Black Filtration, Temperature and Analytical Changes in Sugar Liquor during. H. I. Knowles.....	1151		
BOOK REVIEWS. <i>See end of this section.</i>			
Borates, Production of—in 1924.	858		
Borax, Standardizing Acids and Bases with. M. G. Mellon and V. N. Morris.....	145		
Brazil, Cotton Textile Mill to Be Built in.	133		
Brazil, Production of Arsenic in.	151		
Bread. <i>See</i> Baking.			
Breather Bags. Prevention of Evaporation Losses from Gasoline Storage Tanks. R. E. Wilson, H. V. Atwell, E. P. Brown, and G. W. Chemiczek.....	1030		
BRINES:			
Calcium Chloride, Action of—on Galvanized Coatings. A. C. White.....	503		
Refrigeration, Chemical Treatment of—to Prevent Corrosion. E. P. Poste.....	131		
Production of Sodium Compounds from Natural Salines and—in U. S. in 1924.	1058		

Kettridge's Technical Dictionary, J. A. LeClerc	988	CADMUM Half Cell, Use of—for Determination of Acidity of a Tan Liquor. H. T. Beans and Ernest Little.....	413
Kohlenwasserstoffe und Fette, sowie die ihnen chemisch und technisch nahestehenden Stoffe, by Holde, A. C. Fieldner	546	Calcium Aluminates, Action of Sodium and Magnesium Sulfates on. G. R. Shelton.....	1267
Lead, the Precious Metal, by Harn, C. E. Siebenthal	324	Calcium Chloride Brines. <i>See</i> Brines.	
Leitvermögen der Lösungen, by Walden. Parts I and II of Vol. IV of Handbuch der allgemeinen Chemie, by Ostwald and Drucker, P. K. Frölich	437	Calcium Citrate, Manufacture of—and Citric Acid from Lime Juice. F. H. S. Warneford and F. Hardy.....	1283
L'Etat Colloidal et Industrie. Vol. I—Industries des Colloides, by Kopaczewski, Jerome Alexander	1206	Calcium Cyanamide-Acid Phosphate Mixtures, Chemical Changes Occurring in. K. D. Jacob and J. M. Braham.....	64
Making, Shaping, and Treating of Steel, by Camp and Francis, H. J. French	1206	Calcium Sulfate. Hydration of Anhydrite. Marie Farnsworth.....	967
Management's Handbook, edited by Alford, A. Oliphant	1096	CALENDAR OF MEETINGS: 103, 213, 323, 427, 543, 649, 762, 853, 982, 1073, 1116, 1295	
Manufacture of Acids and Alkalies, by Lunge, revised under editorship of Cumming. Vol. II—Manufacture of Sulfuric Acid. Chamber Process, by Wyld. Vol. III—Concentration of Sulfuric Acid, by Parks. M. F. Chase	106	Calomel Electrode, Improved. C. J. Schollenberger.....	649
Manufacture of Pulp and Paper—Vol. V. Joint Executive Committee on Vocational Education Representing the Pulp and Paper Industry of the United States and Canada. C. A. Brautlecht	544	Calomel Half Cells, New, for Industrial Hydrogen-Ion Measurements. H. C. Parker and C. A. Dannerth.....	637
Medical Aspects of Chemical Warfare, by Vedder. With a chapter on the Naval Aspects of Chemical Warfare, by Walton. A. S. Loevenhart	546	Calorimeter, Adiabatic. Spontaneous Combustion of Coal. Characteristics Shown by. Storage of Coal and Spontaneous Combustion Round Table Discussion. J. D. Davis and J. F. Byrne.....	125
Metalurgy of Aluminium and Aluminium Alloys, by Anderson, Zay Jeffries	546	Calorimeter, Oxy-. <i>See</i> Oxy-Calorimeter.	
Metalurgy of Copper, by Hofman. G. H. Clevenger	766	Campbell, Edward D. Obituary. A. H. White, 1204; Editorial....	1103
Microorganism and Fermentation, by Jørgensen. Charles Thom Microstructure of Coal Seam, by Lomax. Rheinhardt Thiessen Modern Cereal Chemistry, by Kent-Jones. C. H. Bailey	324	CANADA: Filing Foreign Patent Applications in.....	567
Modern Soap and Detergent Industry. Vol. II—Manufacture of Special Soaps and Detergent Compositions, by Martin. M. H. Ittner	987	New Publication, "Development of Chemical, Metallurgical, and Allied Industries in Canada in Relation to the Mineral Industry." Perfume Agencies in—Combine.....	118
Molybdenum, Cerium and Related Alloys, by Gillett and Mack, A. E. White	986	Canal, Lake Washington Ship, Control of Sea Water Flowing into. E. V. Smith and T. G. Thompson	702
Nonmetallic Minerals. Occurrence—Preparation—Utilization, by Ladoo, W. M. Weigel	104	Canned Foods, Vitamins in. III—Canned Spinach. W. H. Eddy, E. F. Kohman, and Victoria Carlsson	1084
Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists, edited by R. E. Doolittle. A. W. Rowe	1096	CARBON: Combustion of:	
Oil Refinery Specifications, by Nugent. G. A. Burrell	656	I—H. F. Smith and W. C. Ebaugh.....	694
Organic Derivatives of Antimony, by Christiansen, L. W. Jones Physical and Chemical Examination of Paints, Varnishes, and Colors, by Gardner. A. H. Gill	657	II—F. G. Keenen, L. W. Prine, and W. C. Ebaugh.....	804
Organic Medicaments and Their Preparation, by Fourneau, translated by Silvester. G. W. Raiziss. (Silvester, Raiziss, 1295)	1096	III—H. F. Smith	930
Physical Metallography, by Heyn, translated by Grossmann, R. A. Patterson	765	Formation in Automobile Engines, Factors Influencing. J. W. Orelup and O. I. Lee	731
Plant Alkaloids, by Henry. F. O. Taylor	765	Organic, Perfection of Chromic Acid Method for Determining. J. W. White and F. J. Holben	83
Plastische Massen. Die Erzeugung, Verarbeitung, und Verwendung von Kunststoffen, by Blücher. G. H. Brother	656	Carbon Black, Distribution of—in Rubber Stocks. E. B. Spear and R. L. Moore	937
Popular History of American Invention—Vols. I and II, by Kaempfert, C. W. Mitman	104	Carbon Dioxide and Nitrogen Dilutions, Effect of—on Explosion Limits of Acetone and Methanol and Their Mixtures. H. Crouch and E. K. Carver	641
Power Alcohol from Tuber and Root Crops in Great Britain, issued by Fuel Research Board, Department of Scientific and Industrial Research. B. R. Tunison	1205	Carbon Dioxide as an Index of the Critical Oxidation Temperature for Coal in Storage, Storage of Coal and Spontaneous Combustion Round Table Discussion. S. W. Parr and C. C. Coons	118
Practical Microscopical Metallography, by Greaves and Wrighton, W. H. Bassett	1096	Carbon Disulfide Emulsion, Nonstratifying. W. E. Fleming	1087
Preparation of Scientific and Technical Papers, by Trelease and Yule. R. S. McBride	1096	Carbonization. <i>See</i> Coal.	
Production and Measurement of Low Pressures, by Newman, W. E. Tisdale	1096	Carbon Monoxide, Hazard of, to Public and to Industry. S. H. Katz	555
Profitable Science in Industry, by Farnham, Hall, King, and Howe. Alexander Silverman and E. V. Hunt	1096	Carbon Monoxide, Rapid Method for Determination of—in Hydrogen. A. T. Larson and C. W. Whittaker	317
Pronouncing Chemical Formula Speller and Contest Guide, by Jacobson. A. L. Smith	1096	Carbon Tetrachloride, Corrosion of Certain Metals by. F. H. Rhodes and J. T. Carty	909
Proteins and the Theory of Colloidal Behavior, by Loeb. H. B. Vickery	765	CATALYSIS: Catalyst Testing. The Basis of New Industries. D. H. Killeffer	789
Pulverized Fuel, Colloidal Fuel, Fuel Economy, and Smokeless Combustion, by Harvey. H. A. Curtis	656	Chemistry Catalyzes Commerce. Editorial.....	992
Quantitative Organic Microanalysis, by Pregl, translated by Fyleman. C. W. Mason	435	Editorial	664
Rare Earths—Their Occurrence, Chemistry, and Technology, by Levy. C. James	986	Heterogeneous. II—Hydrogenation of Marine Oils. A. S. Richardson, C. A. Knuth, and C. H. Milligan	80
Recent Development of Physical Science, by Whetham. M. Luckiesh	436	Preparation of Fused Iron Oxide for Use as a Catalyst. A. T. Larson and C. N. Richardson	971
Recovery of Gasoline from Natural Gas, by Burrell. R. P. Anderson	765	Caustic Soda Process, Extraction of Phenols from Tar Oils by. J. J. Morgan and M. H. McGehee	696
Reports of the Progress of Applied Chemistry. Vol. IX—1924, issued by the Society of Chemical Industry. R. L. Emerson	765	Celery Blanched with Ethylene Gas	212
Romance of the Holes in Bread, by Russell. W. M. Clark	325	CELLS: Cadmium Half, Use of—for Determination of Acidity of a Tan Liquor. H. T. Beans and Ernest Little	413
Scientific Preservation of Food, by Rector. A. L. Sullivan	107	Calomel Half—for Industrial Hydrogen-Ion Measurements. H. C. Parker and C. A. Dannerth	637
Scientific Research and Human Welfare, by Harris. Harrison Hale	437	Electrolyte Concentration, Common Occurrence of Corrosion by. R. J. McKay	23
Shale Oil, by McKee, Ellis, Gavin, George, Goodwin, Hamor, Karrick, and Lyder. V. C. Alderson	106	CELLULOSE: Chemical Products of. Compiled by the Division of Cellulose Chemistry	33
Soil and Civilization, by Whitney. H. L. Walster	325	Cotton, Notes on the Viscosity of. J. O. Small	515
Stickstoffindustrie, by Waeser. Band V—Der technische Fortschrittsberichte, edited by Rassow. J. M. Braham	765	Determination of Copper Numbers of—Materials. C. J. Staud and H. LeB. Gray	741
Story of Copper, by Davis. E. G. Mahin	327	Cement, Portland, Action of Sodium and Magnesium Sulfates on Constituents of. G. R. Shelton	589
Story of Early Chemistry, by Stillman. E. F. Smith	327	Cement, Portland, Disintegration of—in Sulfate Waters. Thorbergur Thorvaldsson, R. H. Harris, and David Wolochow	467
Story of Sugar, by Bardorf. C. F. Walton, Jr.	876	Central America, U. S. Chemical Exports to	211
Sulphuric Acid Concentration. Vol. I—By Hot Gases; Vol. II—In Heated Vessels, by Parrish and Snelling. A. M. Fairlie	876	Cereal Products, Estimation of Lipoid Phosphorus in. O. S. Rask and I. K. Phelps	189
Superheat Engineering Data. A Handbook on the Generation and Use of Superheated Steam and Related Subjects, published by The Superheat Company	437	Cereal Products, Extraction and Estimation of Lipoids in. O. S. Rask and I. K. Phelps	187
Synthetic Organic Compounds, by Schotz. E. E. Reid	435	CHANDLER, CHARLES FREDERICK: Obituary. Ellwood Hendrick	1090
Systematic Handbook of Volumetric Analysis, by Sutton. G. E. F. Lundell	214	The Dean Passes. Editorial	994
Technische Chlorkali-Elektrolyse, by Billiter. H. P. Wells	1206	Chandler Lecture. Influence of Thyroid Gland on Oxidation in the Animal Organism. E. C. Kendall	525
Technology of Water, by Pollitt. W. D. Collins	434	Charcoal, Ash-Free Wood, Preparation of. L. H. Reyerson	1114
Textbook of Glass Technology, by Hodkin and Cousen. A. Silverman	875	Charcoals, Wood, Identification of Norit and Other. H. G. Tanner	1191
Text Book of Metallography, by Tammann, translated by Dean and Swenson. H. M. Boylston	766	Chardonnet, Count Hilaire de, Scientist and Inventor. J. L. Parsons	754
Theoretical and Applied Electrochemistry, by Thompson. E. M. Baker	875	CHARTS: Artificial Leather Flowsheet	251
Theory and Practice of Combustion, by Lister and Harris. R. S. McBride	217	Chemical Products of Cellulose. Compiled by Division of Cellulose Chemistry	33
Treatise on Physical Chemistry, edited by Taylor. James Kendall Wissenschaftliche Grundlagen der Erdölverarbeitung, by Gurwitsch. W. F. Faragher	217	Pressure-Temperature: Extended Ranges. George Calingaert and D. S. Davis	1287
Zuckerchemie, by Pringsheim. F. W. Zerban	875	Pressure-Temperature, for Organic Vapors. D. S. Davis	735
	655	CHEMICAL ABSTRACTS, DECENTRAL INDEX: Do You Want the Index? Editorial	992
	766	Decennial (Collective Index). Editorial	1102
	988	Editorial	554
	105	Speak Up. Editorial	663
	107	Chemical and Drug Buyers, Lists of—Available	588
	767	CHEMICAL FOUNDATION: Patents. Buy from the Owner. Editorial	883
		Suit vs. U. S. Government. The Decision of the Court. Editorial	444
		Vindicated. Editorial	333

CHEMICALS:

- Our Foreign Trade in—in 1924. Otto Wilson.....
 Reagent. *See* Reagents.
 Synthetic Organic. German Monopoly. Far-Sightedness. Editorial.....
 Synthetic Organic. Progress in Domestic Manufacture of Dyes and Other—during 1924. W. N. Watson.....

CHEMICAL WARFARE:

- At Geneva. Editorial.....
 Chemistry and Peace. Editorial.....
 Economy in Government. Editorial.....
 Geneva Conference. The Front Page. Editorial.....
 "Poison Gas for Home Use." Article in *Collier's*. Editorial.....
 Report of Subcommittee on Poison Gas of Washington Conference on Limitation of Armament. The Suppressed Report. Editorial.....
 Russia to Teach.....
 Screening Smokes. H. W. Walker.....
 Truth about. The Knows and the Noes. Editorial.....

CHEMICAL WARFARE SERVICE:

- Active Service for Reserve Officers.....
 Advancement of Chief. Chemistry Wins Recognition. Editorial Committee Advisory to—Meets.....
 Chemicco-Medical Research, Institute of. Editorial.....
 Chemist, Chief, for Bureau of Standards. Editorial.....
 Chemist, Industrial, Complexity of. H. K. Moore. Perkin Medal Award.....

CHEMISTRY:

- Before the Public. Winning the Public. Editorial.....
 Bureau of—Covers Varied Field.....
 Catalyzes Commerce. Editorial.....
 Changing the World. Editorial.....
 Cook Book.....
 In Baking. Daylight. Editorial.....
 In Banking. Editorial.....
 In International Relations. Editorial.....
 Is the Practice of—a Profession, a Trade, or a Tool? J. E. Teeple Misused. Editorial.....
 Organic, National Symposium on.....
 Peace and. Editorial.....
 Public and.....
 Relation to Business. Handwriting on the Wall. A. D. Little.....
 Second Census of Graduate Research Students in. J. F. Norris.....
 Unity in. Editorial.....
 World Leadership in. Press On. Editorial.....
China Chemists' and Druggists' Review. New Journal.....
China Wood Oil or Chinese Wood Oil. *See* Oil.....
 Chlorates, Evaluation of. *See* Potassium Chlorate.....
 Chlorination of Ethylene, Preparation of Hexachloroethane by. G. E. Miller.....

CHLORINE:

- In Sewage and Waste Disposal. J. C. Baker.....
 Liquid—and Gasoline Mixtures, Detonation of. B. T. Brooks.....
 Manufacture of Hydrochloric Acid from. Wilhelm Hirschkind.....
 Preparation of o-Tolidine Solution for Estimation of. C. E. Roake.....
 Chlorobenzene, Preparation of 2-Aminoanthraquinone from Phthalic Anhydride and Max Phillips.....
 Chrome Liquors, Fixation of Constituents of—by Hide Substance from Highly Concentrated Chrome Solutions. K. H. Gustavson.....
 Chrome Liquors, Reactions between—and Hide Substance. Influence of Concentration Factor on Theory of Chrome Tanning. K. H. Gustavson and P. J. Widen.....
 Chromic Acid Method for Determining Organic Carbon, Perfection of. J. W. White and F. J. Holben.....
 Chromic Chlorides, Effect of Sodium Chloride on Hydrogen-Ion Concentration and Stability towards Alkali of. K. H. Gustavson.....
 Chromium-Aluminum Alloys. *See* Alloys.....
 Chromium, New Reflector Using.....
 Cigar Box Waste, Production of Oil from.....
 Citrate, Qualitative Test to Show Absence of—or Tartrate in Mixtures. J. B. Peterson.....
 Citric Acid, Manufacture of Calcium Citrate and—from Lime Juice. F. H. S. Warneford and F. Hardy.....
 Clarke, H. T., Discovery of Dichloroethyl Sulfide. Unexpected Discoveries. Editorial.....
 Clays, Relation between Dye Adsorption of—and Their Behavior in Rubber Compounds. H. R. Thies.....
 Clays, Test for Relative Decolorizing Efficiencies of. J. B. Hill, L. W. Nichols, and H. C. Cowles, Jr.....
 Clearing House for Chemical Manufacturers. A. S. Behrman, 856; Editorial.....
 Cloth, Coarse, from String Bean Fibers.....
 Cloth from War Waste.....

COAL:

- Coking and Swelling Constituents of. Franz Fischer.....
 Determination of Heating Value of—in Monel Metal Bombs. J. C. Geniesse and E. J. Soop.....
 Determination of Temperature of Plasticity of Coals. C. E. Foxwell.....
 Determination of Temperatures of Plasticity, Maximum Pressures, and Solidification of Coking Coals. E. T. Layng and W. S. Hathorne.....
 Powdered, Length of Visible Flame and Length of Flame Travel in Combustion of. Flame Symposium. H. Kreisinger.....
 Process for Sulfur in. Lead Oxide-Reduced Iron-Iodate Method. W. J. G. Meade.....
 Some Observations on the Transition of—to Coke. Eric Sinkinson.....
 Study of Resins in Western Coal. H. K. Benson.....

COAL, STORAGE OF—AND SPONTANEOUS COMBUSTION. ROUND TABLE DISCUSSION:

- Carbon Dioxide as an Index of the Critical Oxidation Temperature for Coal in Storage. S. W. Parr and C. C. Coons.....
 Deterioration and Spontaneous Combustion of Coal in Storage. S. W. Parr.....
 Deteriorations of Midwest Coals under Different Storage Conditions. Effect on Burning Qualities. N. R. Beagle.....
 Oxidation of Coal at Storage Temperatures. S. W. Parr and R. T. Milner.....
 Oxidation of Sulfur as a Factor in Coal Storage. S. W. Parr and E. R. Hilgard.....
 Spontaneous Combustion of Coal. Characteristics Shown by an Adiabatic Calorimeter. J. D. Davis and J. F. Byrne.....
 Coal Tar, Low-Temperature, Cracking of—and Conversion Products. J. C. Morrell and Gustav Egloff. (Sperr, Morrell and Egloff, 763).

Cod-Liver Oil. *See* Oil.

- COKE:**
 Some Observations on the Transition of Coal to. Eric Sinkinson.....
 Study of—Macrostructure. H. J. Rose.....
 Yields by Low- and High-Temperature Carbonization. F. W. Sperr, Jr.; J. C. Morrell and Gustav Egloff (Morrell and Egloff, 473).....

COLLOIDS:

- Colloid Chemistry of Color Varnish. F. E. Bartell and M. Van Loo I—Behavior of Surface Films, 925; II—Pitting, Seeding, Sifting, and Surface Dulling.....
 Sulfite Liquor as Protective Colloid. E. C. Bingham, G. F. Rolland, and G. E. Hilbert.....

Twilight Zone of Matter. Alexander Findlay.....

Columbia's Patent Policy. Editorial.....

Combination of Chemical Industries. Wanted—A Financial Genius and an Angel. Editorial.....

COMBUSTION:

- Flame Symposium.....
 Spontaneous Storage of Coal and. (See also under Fuels.)

Commerce, Department of, Chemical Advisory Committee to—Formed.....

Commerce, Department of, Issues New Trade Series.....

Commodity Specifications, National Directory of.....

Concrete, Making Stronger.....

Constant-Level Devices. *See* Apparatus.....Contemporaries. *See* American Contemporaries.

Cook Book Chemistry.....

COPPER:

- Alloys. *See* Alloys.....
 Monel Metal and—Kettles, Comparison of—in Boiling Linseed Oil. C. Fichandler.....

Production Breaks Peace-Time Records.....

Ten Per cent, Alloying Tungsten with Aluminium Containing. M. R. Whitmore and F. T. Sisco.....

Corning Glass Works. American Chemical Industries.....

CORROSION:

Chemical Treatment of Refrigeration Brines to Prevent. E. P. Poste.....

Common Occurrence of—by Electrolyte Concentration Cells. R. J. McKay.....

Corrosive Action of Various Soils.....

Device for Estimating. W. R. Fetzer.....

Distilling Flask for Corrosive Liquids. F. E. Brown.....

Effect of Naphtha Solutions of Sulfur and Sulfur Compounds. A. E. Wood, Clyde Sheely, and A. W. Trusty.....

Laboratory Circulating Pump for Corrosive Vapors. H. C. Kremers.....

More Verses from Wilder D. B. H. E. Armstrong.....

Of Certain Metals by Carbon Tetrachloride. F. H. Rhodes and J. T. Carty.....

Report of A. C. S. Committee on. R. J. McKay, chairman.....

CORROSION SYMPOSIUM:

Accelerated Corrosion Tests of Copper-Zinc Alloys by Salt Spray. W. H. Bassett and H. A. Bedorth.....

Acid Corrosion of Metals. Effect of Oxygen and Velocity. W. G. Whitman and R. P. Russell.....

Corrosion in Aqueous Solutions. W. D. Bancroft.....

Corrosion of Glass Surfaces. G. W. Morey.....

Corrosion of Iron. W. R. Whitney.....

Corrosion of Iron in Absence of Oxygen. J. W. Shipley, I. R. McHaffie, and N. D. Clare.....

Corrosion of Some Cast Aluminum Alloys and a Method of Protection. A. C. Zimmerman.....

Corrosion Situation and Its Relation to the Work of the American Chemical Society. W. M. Corse.....

Fundamental Factors in Corrosion. G. M. Enos.....

Introduction. R. J. McKay, chairman.....

Oxidation of Copper-Nickel Alloys at High Temperatures. N. B. Pilling and R. E. Bedorth.....

Oxygen Distribution as a Factor in the Corrosion of Metals. U. R. Evans.....

Practical Use of Laboratory Corrosion Tests. W. E. Pratt and J. A. Parsons.....

Special Corrosion Problems in Oil Refining. R. E. Wilson and W. H. Bahlike.....

Study of Corrosion Factors and the Electrochemical Theory. F. N. Speller.....

COTTON:

Cellulose. *See* Cellulose.....

New Studies on Airplane Dusting of. Textile Mill to Be Built in Brazil.....

Cracking. *See* Gasoline.....Cramton Bill. *See* Oil.....Crank-Case Oil. *See* Oil.....

Cresol-Phenol and Phenol-Water Systems, Vapor Composition Relationships in. F. H. Rhodes, J. H. Wells, and G. W. Murray.....

Crucibles, Iron or Nickel, Use of—for Alkali Determinations. A. W. Epperson and R. B. Rudy.....

Cryoscopy, Value of—in the Technical Investigation of Varnishes. H. E. Hofmann.....

Culture, Laboratory Pure—Apparatus. F. M. Hildebrandt.....

Culture Media, Adjustment of pH of—under Sterile Conditions. L. M. Christensen and E. I. Fulmer.....

Cup Grease. *See* Grease.....

CYANAMIDE:

Determination of. L. A. Pinck.....

Production of—in France. (See also Calcium Cyanamide.)

Cyanides, Alkali, Occurrence of—in the Iron Blast Furnace. S. P. Kinney and E. W. Guernsey.....

670

DAIRY and Food Officials to Meet.....

Dead Sea.....

Detergent Action, Fundamental Principles of—Revealed by the Graphite Test. R. M. Chapin.....

1187

DETONATION:

Of Liquid Chlorine and Gasoline Mixtures. B. T. Brooks.....

Present Status of Facts and Theories of. Flame Symposium. G. L. Clark and W. C. Thee.....

251 (See also Knock Suppressors and Tetraethyl Lead)

Dichloroethyl Sulfide. Unexpected Discoveries. Editorial.....

882

Dicyanodiamide, Determination of.	C. D. Garby.....	266	Methanol Developments.	772
Diethylphthalate, Detection of.	Samuel Levinson.....	929	Modesty in Science.	993
Diethylphthalate, Detection of—in Perfume.	Frederick Breithut and P. M. Apfelbaum.....	534	Muscle Shoals.....	4
Diphenylamine as Indicator in the Reduction of Vanadic Acid.	N. H. Furman.....	314	Needs of the Individual.	333
Diphenylamine, Transformations of—during Aging of Smokeless Powder.	T. L. Davis and A. A. Ashdown.....	674	New System of Espionage.	554
Diseases, Occupational—in Chemical Trades, Report of A. C. S. Committee on. (Abstract)	L. W. Fetzer, chairman.....	654	Oil and Gas Power Week.	224
DISTILLATION:			Our New Directory.	113
Distilling Apparatus.	F. A. Wiggers.....	141	Outdooring Bally.	2
Distilling Flask for Corrosive Liquids.	F. E. Brown.....	706	Platinum Thefts.	224
Flask, Special Vacuum.	R. L. Shriner.....	569	Poison Gas for Home Use.	1213
Vacuum Assay—Test.	A. G. Peterkin and S. W. Ferris.....	1248	Press On.	884
Divisions and Sections. <i>See American Chemical Society.</i>			Priestley Home.	223
Dogfish Liver Oil. <i>See Oil.</i>			Prize Essay Contest of 1925.	884
Dorr Company, History of. American Chemical Industries.	William Russell.....	1293	Public Official's Attitude.	882
Dow Chemical Company. American Chemical Industries.....	983	Rayon.	774	
Dreyfus, Mrs. Louis A., Contribution to Endowment Fund. Editorial.....			Recognition of Scholarship.	553
Drills. Earning Power of Research. Editorial.....	334	Revival of Synthetic Rubber.	992	
Drug and Chemical Buyers, List of—Available.		114	Safety in Industry.	553
Drugs, Crude—Offered in India.		588	Second Decennial Index.	554
Dühring's Rule. <i>See Solutions, Organic.</i>		237	Sell Your Hammer and Buy a Horn.	114
DU PONT DE NEMOURS AND COMPANY, E. I.:			Semicentennial of the Society.	1103
American Chemical Industries.	C. L. Reese.....	1093	Short Memory.	883
Enters Synthetic Ammonia Field.		198	Should the Arsenal Manufacture?	883
Organizes Viscosoloid Company.		472	Speak Up.	663
Rayon Company Extends Acreage of Tennessee Plant.		847	Steam Generation.	443
Dust Explosions in Industrial Plants.	H. R. Brown.....	902	Suppressed Report.	662
DYES:			Surgeon General's Conference.	552
Azo, Comparative Study of—Made with H-Acid and Acetyl-H-Acid.	W. W. Lewers with Alexander Lowy.....	1289	Synthetic Ammonia.	772
Dye Competition Keen in Argentina.		614	Temporary Expedient.	552
German Monopoly. Farsightedness. Editorial.		1103	Textile Research.	1104
Green Dye and Moths. Editorial.		223	Trusting False Gods.	332
Japanese Dyestuff Subsidy, Continued.		460	Tulsa Meeting.	1102
New Green Dye.		611	Unexpected Discoveries.	882
Production and Sales of—Decline.		543	Unity in Chemistry.	442
Progress in the Domestic Manufacture of—and Other Synthetic Organic Chemicals during 1924.	W. N. Watson.....	1018	Useful Section Activity.	3
Relation between Dye Adsorption of Clays and Their Behavior in Rubber Compounds.	H. R. Thies.....	1165	Vision.	333
Spectrophotometric Identification of.	W. C. Holmes. II—Basic Fuchsins, 59; III—Basic Violets of the Triphenylmethane Group.	918	Wanted—A Financial Genius and an Angel.	663
EASTMAN, George. American Contemporaries.	C. E. K. Mees.....	541	W. F. Hillebrand.	223
Economic Conference. Editorial. (<i>See Teeple, 665</i>).....		882	What Is Muscle Shoals?	443
Edgewood Arsenal. Should the Arsenal Manufacture? Editorial.		883	Whither Are We Bound?	663
EDITORIALS: 2, 112, 222, 332, 442, 552, 662, 772, 882, 992, 1102, 1926 a Banner Year for American Chemistry and the American Chemical Society.		1212	Winning the Public.	334
Analysis.		1102	World Industrially Unbalanced.	1213
"And Some Fell into Good Ground"		884	Worm Should Turn.	332
At Geneva.		442	Your Landing Field.	882
At Last.		553		
Basis of Our Success.		774		
Benzene One Hundred Years Old.		334		
Buy from the Owner.		662		
Buying a Mortgage.		883		
Catalysis.		773		
Change in Leadership.		664		
Chemical Foundation Vindicated.		2		
Chemistry and Peace.		333		
Chemistry Catalyzes Commerce.		113		
Chemistry Changing the World.		992		
Chemistry in Banking.		554		
Chemistry in International Relations.		994		
Chemistry Misused.		554		
Chemistry Wins Recognition.		224		
Chief Chemist.		222		
Clearing House for Chemical Manufacturers.		1213		
Columbia's Patent Policy.		1212		
Constructive Broadcasting.		884		
Cost of Nitrogen.		3		
Daylight.		664		
Dean Passes.		1214		
Decennial (Collective) Index.		994		
Decision of the Court.		1102		
Do You Want the Index?		444		
Earning Power of Research.		992		
Economic Conference.		114		
Economy in Government.		882		
E. D. Campbell.		773		
Endowment Fund.		1103		
Endowment Fund as a Memorial.		1102		
Endowment Progress.		334		
Exchange Professors.		664		
Faith Demonstrated.		774		
Far-Sightedness.		113		
Fertilizer Industry.		1103		
Front Page.		664		
Generous America.		663		
German Loans.		114		
Glass Technology.		2		
Green Dye and Moths.		774		
In 1926.		223		
Institute of Chemico-Medical Research.		223		
Institute of Politics.		1102		
International Union.		1103		
International Union to Meet Here in 1926.		664		
Investors Beware.		112		
Knows and the Noes.		1104		
Laboring under Difficulties.		3		
Lessons of the Shenandoah.		994		
Librarians and Scientists.		4		
Liquid Fuels of the Future.		334		
Local Section Activities.		1103		
Make Haste Slowly.		662		
Meeting at Baltimore.		442		
Methanol.		1212		
FATS:				
Butter—Produced on Summer Feeds. Vitamin Potency of Cod-Liver Oils—XI.	A. D. Holmes.....	994		75
Butter, Spontaneous Decomposition of.	C. A. Browne.....	44		
Measurement of Susceptibility of—to Oxidation.	G. R. Greenbank and G. E. Holm.....	625		

FELLOWSHIPS:

- Furnished by Foreigners. A New System of Espionage. Editorial.....
Graduate—in Cooperation with Bureau of Mines.....
Guggenheim Foundation Award in Chemistry.....
Ferrocyanides, Fix Duty on.....
Ferrous Hydroxide, Versatility of. Peter Fireman.....
FERTILIZERS:
Change in Leadership. Editorial.....
Determination of Mineral and Organic Ammonia in. F. B. Carpenter and H. L. Moxon.....
Determination of Mineral Nitrogen in. J. E. Breckenridge.....
Hygroscopicity and Caking of Fertilizer Materials. A. B. Beaumont and R. A. Mooney.....
Merger of National Fertilizer Association and Southern Fertilizer Association. Fertilizer Industry. Editorial.....
Nitrogenous, Agricultural Value of. J. G. Lipman and H. C. McLean.....
Quality of Organic Nitrogen in. F. E. Bear.....
Film Standardizer to Help Make Better Pictures.....
Filter Pump, New Technical Uses for. E. A. Vuilleumier.....
Filters, Influence of Curvature on Air Saturation of Water and Its Relation to Air-Binding of. J. R. Baylis.....
Filter Tube, Shimer. E. C. Bingham.....
Finishes, Laboratory Tests on. H. C. Mougey.....
Fir, Douglas. See Wood.
Fire Hazards of Static Electricity. R. M. Clark.....
Fishes, Certain Pacific Coast, Proximate Composition of. D. B. Dill
Flames, Nonluminous, Radiation from. R. T. Haslam, W. G. Lovell, and R. D. Hunneman.....

FLAME SYMPOSIUM:

- Chemical Equilibrium in Gases Exhausted by Gasoline Engines. W. G. Lovell and T. A. Boyd.....
Conditions Which Govern Efficiency of Gas Burners. S. W. Parr
Effects of Knock Inducers and Suppressors upon Gaseous Ionization. G. L. Clark, E. W. Brugmann, and W. C. Thee.....
Factors Affecting the Utility of Secondary Air in Gaseous Combustion. E. W. Rembert and R. T. Haslam.....
Factors Influencing the Length of a Flame Burning in Secondary Air. E. W. Rembert and R. T. Haslam.....
Gaseous Explosions. II—Homogeneous and Heterogeneous Reactions Defined and Classified. G. G. Brown.....
Length of Visible Flame and Length of Flame Travel in Combustion of Powdered Coal. H. Kreisinger.....
Mechanism of Combustion in the Bunsen Cone. E. W. Rembert and R. T. Haslam.....
Present Status of Facts and Theories of Detonation. G. L. Clark and W. C. Thee.....
Relative Rates of Combustion of Constituents of City Gas Burning in Secondary Air. E. W. Rembert and R. T. Haslam.....

FLASK:

- Automatic Buret and—for Standard Alkali Solutions. H. R. McMillin.....
Distilling—for Corrosive Liquids. Louis Sattler and B. R. Mortimer.....
Vacuum Distillation, Special. R. L. Shriner.....
Flour and Wheat, Determination of Moisture in. Part III. Harry Snyder and Betty Sullivan.....
Flour, Observations on the Drying of. With Notes on Its Hygroscopic Properties. E. R. Smith and L. C. Mitchell.....
Flowmeter, Stopcock Orifice. Jonathan Sharp.....
Flow Sheet, Artificial Leather.....
Fluidity, Rhe as Absolute Unit of. E. C. Bingham.....
Fluids, Supernatant, Device for Saving. F. A. Wiggers.....
Fluorspar, Improvements in Milling.....
Foaming and Surface Tension. D. K. French. (Millard and Mattson, 685).....

FOODS:

- Canned. See Canned Foods.
Food and Dairy Officials to Meet.....
Oxy-Calorimeter. Principle and Application to the Determination of Energy Values of Fuels, —, and Excretory Products. F. G. Benedict and E. L. Fox.....
Whole and Skimmed Milk Powders as Food. Observations on New Vitamin for Reproduction. L. T. Anderegg and V. E. Nelson...
(For other food articles see kind of food.)

- Foodstuffs, Imported, Argentina Requires Chemical Analysis on....
Fractionating Bulbs. Concentration by Fractional Condensation. J. L. Young.....
Fractionating Columns, Graphical Design of. W. L. McCabe and E. W. Thiele.....
Fractionator, Improved Fischer Vacuum. Louis Sattler.....
Frauds, Chemical. Outdoings Bally. Editorial.....
Fraudulent Chemical Companies. At Last. Editorial.....
Fries, Brig.-Gen. A. A., Promotion of. Chemistry Wins Recognition. Editorial.....
Fruits, Artificial Coloring of. Chemistry Misused. Editorial.....
Fuchsins, Basic. Spectrophotometric Identification of Dyes—II. W. C. Holmes.....

FUEL:

- Liquid Fuels from Water Gas. Franz Fischer.....
Liquid Fuels of the Future. Editorial.....
Motor:
Alcohol, from Molasses. I—Use of Cane Molasses for Manufacture of. E. C. Freeland.....
II—Use of Alcohol and Alcohol-Ether Mixtures as Motor Fuels. E. C. Freeland and W. G. Harry.....
Cracking of Low-Temperature Coal Tar and Conversion Products. J. C. Morrell and Gustav Egloff. (Sperr, Morrell and Egloff, 763).....
Economy and Motor Design. C. F. Kettering.....
Petroleum. K. G. Mackenzie.....
Oxy-Calorimeter. Principle and Application to the Determination of Energy Values of Fuels, Foods, and Excretory Products. F. G. Benedict and E. L. Fox.....
Personal Observations on—Research in Europe. A. C. Fieldner. Reactions in the Bed of a Gas Producer. R. T. Haslam, F. E. Entwistle, and W. E. Gladding.....
(See also under kind of fuel.)
Furnace, Iron Blast. See Iron.
Fusions, Peroxide Explosion Method for. W. F. Muehlberg.....

GALLIUM-in-Quartz Thermometer Graduated to 1000° C. Sylvester Boyer.....	1252
Galvanized Coatings. See Zinc.	
GAS:	
Apparatus for Accurate Analysis of Small Quantities of. D. S. Chamberlin and D. M. Newitt.....	621
Chemical Equilibrium in Gases Exhausted by Gasoline Engines. Flame Symposium. W. G. Lovell and T. A. Boyd.....	1216
City, Relative Rates of Combustion of Constituents of—Burning in Secondary Air. Flame Symposium. E. W. Rembert and R. T. Haslam.....	1240
Effects of Knock Inducers and Suppressors upon Gaseous Ionization. Flame Symposium. G. L. Clark, E. W. Brugmann, and W. C. Thee.....	1226
Flowing, Measurement of the Temperature of. R. T. Haslam and E. L. Chappell.....	402
Formation in Cracking Process. Gustav Egloff and J. C. Morrell	32
Gaseous Explosions. I—Initial Temperature and Rate of Rise of Pressure. G. G. Brown, E. H. Leslie, and J. V. Hunn.....	397
II—Homogeneous and Heterogeneous Reactions Defined and Classified. Flame Symposium. G. G. Brown.....	1229
Manufactured, Present Trend of—Industry. F. W. Steere.....	94
Oil and—Power Week. Editorial.....	224
Poison. See Chemical Warfare.	
Producer, Reactions in the Fuel Bed of. R. T. Haslam, F. E. Entwistle, and W. E. Gladding.....	586
Recovery of Nitrogen Oxides from—Mixtures by Adsorption on Silica Gel. J. A. Almqvist, V. L. Gaddy, and J. M. Graham.....	599
Vacuum Door. R. F. Mehl and D. P. Smith.....	598
Water:	
Equilibrium, Evidence for Existence of. Combustion in Gasoline Engine. C. G. Minter.....	687
Influence of Operating Practice on Composition of Carbureted Light Oil. R. L. Brown and H. G. Berger.....	168
Liquid Fuels from. Franz Fischer.	574
Use of Oxygen in the Manufacture of. F. E. Vandaveer with S. W. Parr.....	1123
GASOLINE:	
Air—Mixtures, Dew Points of. D. P. Barnard and R. E. Wilson.....	428
Benzene, Naphtha, etc., Import Duty on—Increased.	246
Engines. See Engines.	
Equilibrium Vaporization of. Reston Stevenson and H. J. Stark	679
Gas Formation in the Cracking Process. Gustav Egloff and J. C. Morrell.....	32
Liquid Chlorine and—Mixtures, Detonation of. B. T. Brooks	752
Measurement of Vapor Tension of—and Other Liquids. H. S. Davis.....	1136
Motor, Change in—Specification.	1060
Storage Tanks, Prevention of Evaporation Losses from. R. E. Wilson, H. V. Atwell, E. P. Brown, and G. W. Chenicke.....	1030
Tetraethyl. See Tetraethyl Lead.	
General Dyestuff Corporation, Arrangement with Grasselli Dyestuff Corporation. Far-Sightedness. Editorial.....	1103
Geneva Conference. See Chemical Warfare.	
Geraniol, New Attractive Agent.....	1247
GERMANY:	
Dyestuffs, Representation in America. Far-Sightedness. Editorial.....	1103
Loans:	
Buying a Mortgage. Editorial.....	773
Editorial.	2
Investors Beware! Editorial.....	112
Germ-Killing Effect of Ultra-Violet Measured.	160
Gifts to Promote Public Welfare. Generous America. Editorial.....	114
Gland, Thyroid. See Thyroid Gland.	
GLASS:	
Optical—Industry, American, Decline of. A Short Memory. Editorial.....	883
Surfaces, Corrosion of. Corrosion Symposium. G. W. Morey.....	389
Technology. Editorial.....	774
Glauconite. Potash from Greensand. J. W. Turrentine, C. W. Whittaker, and E. J. Fox.	1177
Glue, Comparison of Various Tests upon—, Particularly Its Tensile Strength. A. H. Gill.....	297
Glue, Veneer, Drawback on.	1253
Glycerol, Freezing Points of—and Its Aqueous Solutions. L. B. Lane.....	924
Glycerol-Water and Glycerol-Water-Sodium Chloride Systems, Vapor Pressures of. A. R. Carr, R. E. Townsend, and W. L. Badger.....	643
Gold Chloride, Export of.	432
Government, Economy in. Editorial.....	773
GOVERNMENT PUBLICATIONS: 108, 218, 328, 438, 548, 658, 768, 878, 1098, 1208, 1298	
Grape Sirup. See Sirup.	
Graphite Test, Fundamental Principles of Detergent Action Revealed by. R. M. Chapin.....	1187
Grasselli Dyestuff Corporation, Arrangement with General Dyestuff Corporation. Far-Sightedness. Editorial.....	1103
Grasselli Medal Award. Fundamentalism in Ferrous Metallurgy. B. D. Saklatwalla.....	98
Grease, Cup, Control of Consistency in Manufacture of. D. R. Merrill.....	1068
Grease, Cup, Measurement of Consistency of—by Use of Plastometer. P. K. Porter and W. A. Cruse.....	953
Greensand (Glauconite). Potash from. J. W. Turrentine, C. W. Whittaker, and E. J. Fox.	1177
Guggenheim Foundation Award in Chemistry.	691
Gum, Mesquite, Preparation of l-Arabinose from. Ernest Anderson and Lila Sands.....	1257
Gypsum Block, Weatherproofing of.	299
Gypsum Mined and Shipped in 1924.	901
H-ACID and Acetyl-H-Acid, Comparative Study of Azo Dyes Made with. W. W. Lewers with Alexander Lowy.....	1289
Hair and Skin, Hydrolysis of. See Leather.	
Handwriting on the Wall. A. D. Little.....	857
Hazards. See Safety in Industry.	
Haze, Apparatus for Utilization. Steam Generation. Editorial.....	443
Hexachloroethane, Preparation of—by Chlorination of Ethylene. G. E. Miller.....	1182
Hide Substance. See Leather.	
Hillebrand, W. F. Obituary. Editorial.....	223

Hill, Hugh, Offers Chemistry Prizes. "And Some Fell into Good Ground." Editorial.....	442	Jenkins, Edward Hopkins. American Contemporaries. E. M. Bailey.....	874
Historical Chemistry, Department of—in <i>Journal of Chemical Education</i>	103	<i>Journal of Chemical Education</i> to Introduce Department of Historical Chemistry.....	103
Höchst Test, Study of—for Determination of Anthracene. F. H. Rhodes, M. L. Nichols, and C. W. Morse.....	839	JOURNALS, NEW:	117
Hood, Individual Laboratory. G. W. Muhrman.....	316	<i>International Biological Abstracts</i>	125
Hydrochloric Acid, Manufacture of—from Chlorine. Wilhelm Hirschkind.....	1071	<i>China Chemists' and Druggists' Review</i>	
Hydrocinnamic Acid, <i>p</i> -Phenylenediamine, Aminosalicylic Acid, and Succinic Acid, Electrolytic Preparation of. J. F. Norris and E. O. Cummings.....	959	KNOCK Inducers and Suppressors, Effects of—upon Gaseous Ionization. Flame Symposium—G. L. Clark, E. W. Brugmann, and W. C. Thee.....	1226
HYDROCYANIC ACID:	305	(See also Detonation.)	
Absorption of—by Solid Sodium Carbonate. F. V. Bichowsky.....	57	LABORATORIES:	
Improved Method for Generation of. F. V. Bichowsky.....	1074	Nickel Table Tops for. O. B. J. Fraser.....	604
Liquid, Decomposition of. Mark Walker and D. N. Eldred.....	80	University, Chemical Engineering Equipment for. M. J. Bradley.....	498
Hydrogenation of Marine Oils. Heterogeneous Catalysis—II. A. S. Richardson, C. A. Knuth, and C. H. Milligan.....	80	LAQUERS:	
Hydrogen-Ion Concentration as a Basis of Refinery Alkalinity Control. A. A. Blows and A. L. Holven.....	1263	Automobile—and Solvents. D. B. Keyes.....	558
Hydrogen-Ion Measurements, Industrial, New Calomel Half Cells for. H. C. Parker and C. A. Danneth.....	637	Two-Type Lacquer Solvents. D. B. Keyes.....	1120
Hydrogen-Ion Measurements, Potentiometric, with Non-Gas Electrodes. H. C. Parker.....	737	Use of Plasticizers in. A Brief Survey. B. K. Brown. (Correction, 873).....	568
Hydrogen Peroxide, Evolution of—by Oils on Exposure to Light. G. F. A. Stutz, H. A. Nelson, and F. C. Schmutz.....	1138	Lake Washington Ship Canal. See Canal.	
HYDROGEN:	1138	LEAD:	
Electrode Vessels for Use with Tannery Liquors. J. A. Wilson and E. J. Kern.....	74	Antimony—System, II. R. S. Dean, W. E. Hudson, and M. F. Fogler.....	1246
Production of Pure—for Liquefaction.....	183	Inexpensive Method for Determining. W. W. Scott.....	678
Rapid Method for Determination of Carbon Monoxide in. A. T. Larson and C. W. Whittaker.....	715	Manganese and, Catalytic Effect of—on the Drying of China Wood Oil. G. E. Ludwig.....	1160
Solubility of a Mixture of—and Nitrogen in Liquid Ammonia. A. T. Larson and C. A. Black.....	433	Tetraethyl. See Tetraethyl Lead.	
Hydrogen Sulfide, Liquid.....	1023	LEATHER:	
Hydrogen Sulfide, Liquid, as a Source of Laboratory Supply of the Gas. C. J. Moore.....	496	Acidity of a Tan Liquor, Study of A. L. C. A. Official Method for Determination of. H. T. Beans and Ernest Little.....	252
ILLINOIS, University of. Chemical Engineering Equipment for University Laboratories. M. J. Bradley.....	744	Artificial, Flow Sheet.....	251
Illustrations for Journal Articles.....	920	Calf, Variation of Strength and Stretch over the Area of. J. A. Wilson.....	829
Imports. See under name of country or article.....	237	Destructive and Preservative Effect of Neutral Salts upon Hide Substance. A. W. Thomas and S. B. Foster.....	1162
Indene, Polymerization and Oxidation of—in the Vapor Phase. R. L. Brown.....	300	Effect of Sodium Chloride on Hydrogen-Ion Concentration and Stability towards Alkali of Chromic Chlorides. K. H. Gustavson.....	945
India, Crude Drugs Offered in.....	333	Effect of Sulfides on the Alkaline Hydrolysis of Skin and Hair. H. B. Merrill.....	36
Indigo, Synthetic, Analysis of—by Means of Titanous Chloride. F. L. English and W. S. Calcott.....	334	Fixation of Constituents of Chrome Liquors by Hide Substance from Highly Concentrated Chrome Solutions. K. H. Gustavson.....	823
Individual, Needs of. Editorial.....	540	Hydrogen Electrode Vessels for Use with Tannery Liquors. J. A. Wilson and E. J. Kern.....	
Individuals, Service to. The Basis of Our Success. Editorial.....	744	Imperfections in—Caused by Microorganisms. J. A. Wilson and Guido Daub.....	74
INDUSTRIAL AND ENGINEERING CHEMISTRY:	663	Reactions between Chrome Liquors and Hide Substance. Influence of Concentration Factor on Theory of Chrome Tanning. K. H. Gustavson and P. J. Widen.....	700
Illustrations for Journal Articles.....	1088	Scrap, Industrial Utilization of. Joseph Michelman.....	577
Micrographs, Size of.....	857	Scrap. Pyrrole from New Sources. Some Uses. Joseph Michelman.....	247
Industries, Chemical, Combination of. Wanted—A Financial Genius and an Angel. Editorial.....	1213	Tanning Materials, Swedish Tariff Revision Concerning.....	471
Industries. See American Chemical Industries.	192	Vegetable Tanning. A. W. Thomas and M. W. Kelly.....	523
INDUSTRY:	1102	Ventilating Properties of. J. A. Wilson and G. O. Lines.....	41
Academic Research and. Address of J. F. Norris, President of A. C. S.	238	Use of a Cadmium Half Cell for Determination of Acidity of a Tan Liquor. H. T. Beans and Ernest Little.....	570
Relation between Science and. Handwriting on the Wall. A. D. Little.....	268	Legislation on Science Teaching. Whither Are We Bound? Editorial.....	413
Safety in. See Safety in Industry.....	117	Librarians and Scientists. Editorial.....	663
World Industrially Unbalanced. Editorial.....	554	Libraries, Co-operation with.....	4
INORGANIC COMPOUNDS, General Production in 1923.....	1103	Lignin, Distribution of—in Wood. G. J. Ritter.....	730
Insecticide, Further Experiments with Sodium Fluosilicate as. F. Tattersfield and C. T. Gimingham. [See THIS JOURNAL, 16, 1249 (1924)].	805	LIME:	1194
Insecticides. See kind of insecticide.....	664	Acetone by Distillation of Wood with. A. W. Schorger.....	944
Institute of Chemical Engineers, Meeting of—with American Institute of Chemical Engineers.....	664	For Manufacture of Bleaching Powder.....	376
Institute of Politics. Editorial.....	445	Rate of Hydration of—from Reburned Sludges as Influenced by Its Soluble Salts. A. H. White and R. M. True.....	520
Insulin, Preparation of. D. A. Scott and C. H. Best.....	112	Lime Juice, Coloring Matter of. F. Hardy and F. H. S. Warneford.....	48
International Annual Tables.....	470	Lime Juice, Manufacture of Calcium Citrate and Citric Acid from. F. H. S. Warneford and F. Hardy.....	1283
International Biological Abstracts, New Journal.....	117	Limestone, Separation of Manganese in the Analysis of—and Similar Materials. A. W. Epperson.....	744
International Relations. Prize for Synthetic Morphine. Chemistry in International Relations. Editorial.....	554	Linseed Varnishes and Oils. See Varnishes and also Oil.....	
INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY:	1259	Lipoid Phosphorus, Estimation of—in Cereal Products. O. S. Rask and I. K. Phelps.....	189
Editorial.....	670	Lipoids, Extraction and Estimation of—in Cereal Products. O. S. Rask and I. K. Phelps.....	187
Meeting, Bucharest, Roumania, Heads of Delegations (Photo)....	385	Liquid, Device for Maintaining a Slow, Constant Flow of. Charles Van Brunt.....	966
To Meet Here in 1928. Editorial.....	647	Liquids, Corrosive, Distilling Flask for. Louis Sattler and B. R. Mortimer.....	495
Invertase, Industrial Applications of. H. S. Paine, C. F. Walton, Jr., and M. S. Badollet.....	1259	Liquids, Volatile, Measurement of Vapor Tension of Gasoline and H. S. Davis.....	1136
Investors Beware! Editorial.....	670	Lithopone and Zinc Oxide Pastes, Rapid Method to Distinguish. E. O. Dunkley.....	890
Iodides, Detection of Traces of. F. B. Wade.....	385	Lithopone Paint. See Paint.....	
Iodine Values and Sulfuric Acid Absorption of Various Petroleum Products and Cracked Distillates Obtained Therefrom. J. C. Morell and Gustav Egloff.....	647	Los Angeles Meeting. See American Chemical Society.	
IRON:	1261	LUBRICATION:	
Blast Furnace, Occurrence of Alkali Cyanides in. S. P. Kinney and E. W. Guernsey.....	86	Control of Consistency in Manufacture of Cup Grease. D. R. Merrill.....	1068
Corrosion of. Corrosion Symposium. W. R. Whitney.....	96	Curves, Corrections in. D. B. Barnard, H. M. Myers, and H. O. Forrest. [See THIS JOURNAL, 16, 347 (1924)].	102
Corrosion of—in Absence of Oxygen. Corrosion Symposium. J. W. Shiple, I. R. McHaffie, and N. D. Clare.....	647	Measurement of Cup Grease Consistency by Use of the Plastometer. P. K. Porter and W. A. Gruse. (See also Oil.)	953
Determination of Ferrous—in Materials Containing Metallic—C. E. Sims and B. M. Larsen.....	1261		
Fundamentalism in Ferrous Metallurgy. Grasselli Medal Award. B. D. Saklatwalla.....	832	MAGNESIA Ware, Pure, Laboratory Production of. R. F. Mehl, J. L. Whitten, and D. P. Smith.....	1171
Liquid Cast, Determination of Density of. H. A. Schwartz.....	971	Magnesite, Investigation of—by Tariff Commission.....	429
Metallic—and—Oxides, Analysis of Materials Containing a Mixture of. H. C. M. Ingeberg.....	1261	MAGNESIUM SULFATE:	
Permanent Standards as a Possible Source of Error in—Determinations. E. S. Hopkins.....	832	Action of Sodium Sulfate and—on Constituents of Portland Cement. G. R. Shelton.....	589
IRON OXIDE:	1261	Action of Sodium Sulfate and—on Calcium Aluminates. G. R. Shelton.....	1267
Analysis of Materials Containing a Mixture of Metallic Iron and Iron Oxides. H. C. M. Ingeberg.....	971	Manganese and Lead, Catalytic Effect of—on the Drying of China Wood Oil. G. E. Ludwig.....	1160
Fused, Preparation of—for Use as a Catalyst. A. T. Larson and C. N. Richardson.....	1255	Manganese, Separation of—in the Analysis of Limestone and Similar Materials. A. W. Epperson.....	
Pigments, Yellow and Brown, Effect of—upon the Rate of Oxidation of Linseed Oil. F. H. Rhodes and J. D. Cooper, Jr.	460	Manufacturers, Chemical, Clearing House for. A. S. Behrman, 856; Editorial.....	744
Ithaca Meeting. See American Chemical Society.	1291		1212
JAPAN. Dyestuff Subsidy Continued.....			
Jelly-Maker, Commercial, Requirements of Pectin for. Eloise Jameson.....			

Maple. <i>See</i> Wood.			
Marine Oils. <i>See</i> Oil.			
MARKE REPORT: 109, 219, 329, 439, 549, 659, 769, 879, 989, 1099, 1209,			
Match Factory to Be Built in Spain.....	1299		
Matter—Is There Anything in It? W. R. Whitney.....	146		
Matter, Twilight Zone of. Alexander Findlay.....	885		
McCay, LeRoy Wiley. American Contemporaries. William Foster.....	891		
Meats, Use of Sodium Nitrite in Curing. W. L. Lewis, R. S. Vose, and C. D. Lowry, Jr.....	652		
MEDAL AWARDS:	1243		
Chandler, to E. C. Kendall. Influence of Thyroid Gland on Oxidation in the Animal Organism.....	525		
Grasselli, to B. D. Saklatwalla. Fundamentalism in Ferrous Metallurgy.....	202		
Perkin, to H. K. Moore. Complexity of Industrial Chemist.....	1286		
Medical and Safety Departments, Co-operation of. O. F. W. Cromwell.....	223		
Medical, Chemicco, Research Institute of. Editorial.....	1295		
"Medicaments, Organic, and Their Preparation," by Fourneau, translated by Silvester. Note on Book Review. W. A. Silvester, G. W. Raiziss.....	96		
Medicines, Prepared, Series Ready for Distribution by Department of Commerce.....	1036		
Menthols, Synthetic.....	362		
Mesquite Gum. <i>See</i> Gum.	98		
Metallurgy, Ferrous, Fundamentalism in. Grasselli Medal Award. B. D. Saklatwalla.....	348		
METALS:	521		
Acid Corrosion of. Effect of Oxygen and Velocity. Corrosion Symposium. W. G. Whitman and R. P. Russell.....	1142		
Action of Ultra-Violet Light in Various Gases on.....	909		
Amalgamating Metal Used in Molding Asphalt. L. J. Catlin.....	34		
Commercial, New X-Ray Studies of the Ultimate Structures of. G. L. Clark, E. W. Brugmann, and S. D. Heath.....	363		
Corrosion of Certain—by Carbon Tetrachloride. F. H. Rhodes and J. T. Carty.....	641		
Liquid and Solid, Vapor Pressures of. R. W. Millar.....	980		
Oxygen Distribution as a Factor in Corrosion of. Corrosion Symposium. U. R. Evans.....	763		
(<i>See also under kind of metal.</i>)			
METHANOL:			
Acetone and—and Their Mixtures, Effect of Nitrogen and Carbon Dioxide Dilutions on Explosion Limits of. H. Crouch and E. K. Carver.....	1212		
Investigation by Tariff Commission.....	1212		
Is Poisonous. Reid Hunt. (<i>See also page 427.</i>)	1212		
METHANOL, SYNTHETIC:			
Controversy. Badische Anilin und Soda Fabrik; Georges Patart Developments. Editorial.....	859		
Editorial.....	772		
Industrial Production of. Charles Lormand.....	430		
Liquid Fuels of the Future. Editorial.....	334		
Make Haste Slowly. Editorial.....	662		
Manufacture of. Patent Specification.....	981		
Temporary Expedient. Editorial.....	552		
Trusting False Gods. Editorial.....	332		
Wood Distillers and. L. F. Hawley.....	763		
Microchemistry as an Industrial Economy. W. H. Gesell and M. A. Dittmar.....	808		
Micrographs, Size of.....	744		
Microorganisms, Imperfections in Leather Caused by. J. A. Wilson and Guido Daub.....	1212		
Microplastometer. Henry Green and G. S. Haslam.....	700		
Microscope, Cold Light for. Alexander Silverman.....	573		
Microscope, Indirect Illumination for. Alexander Silverman.....	43		
Microtome from a Microscope and Sectioning Razor. E. B. Spear and R. L. Moore.....	894		
Milk Powders, Whole and Skimmed—as Food. Observations on a New Vitamin for Reproduction. L. T. Anderegg and V. E. Nelson.....	451		
Milkweed, Seed Hairs of. A. W. Schorger.....	642		
Mill, New Laboratory. S. W. Wiley.....	304		
Mineral Industry, Development of Chemical, Metallurgical, and Allied Industries in Canada in Relation to. New Publication.....	118		
Mine Rescue Contest Announced.....	908		
MINES, BUREAU OF:			
Graduate Fellowships.....	358		
Reorganized.....	828		
Transferred to Hoover.....	750		
Work of—Discussed in Annual Report.....	56		
Modesty in Science. Editorial.....	993		
Moisture in Wheat and Flour, Determination of. Part III. Harry Snyder and Betty Sullivan.....	311		
Moisture, Preliminary Notes on Direct Determination of. G. L. Bidwell and W. F. Sterling.....	147		
Molasses, Alcohol Motor Fuel from. I—Use of Cane Molasses for Manufacture of Motor Fuel. E. C. Freeland.....	615		
II—Use of Alcohol and Alcohol-Ether Mixtures as Motor Fuels. E. C. Freeland and W. C. Harry.....	717		
Molasses as a Source of Vitamin B. V. E. Nelson, V. G. Heller, and E. I. Fulmer.....	199		
Molybdenum in Steel, Rapid Determination of. O. L. Maag and C. H. McCollam.....	524		
Monel Metal Bombs, Determination of Heating Value of Coal in. G. C. Geniesse and E. J. Soop.....	1197		
Monel Metal Kettles, Comparison of—with Copper Kettles in Boiling Linseed Oil. C. Fichandler.....	478		
Morphine, Synthetic, Prize for. Chemistry in International Relations. Editorial.....	554		
Moths and Green Dye. Editorial.....	223		
Motion Pictures, Better, Film Standardizer to Help Make.....	736		
Motor Design and Fuel Economy. C. F. Kettering.....	1115		
Motor Fuel. <i>See</i> Fuel, or kind of fuel.			
MUSCLE SHOALS:			
Ammonium Nitrate, Destruction of—by Fire and Explosion. C. E. Munroe.....	819		
Cost of Nitrogen. Editorial.....	664		
Editorial.....	4		
What Is? Editorial.....	443		
NAPHTHA, Gasoline, Benzene, etc., Import Duty on—Increased... Naphtha Solutions of Sulfur and Sulfur Compounds, Corrosion Effect of. A. E. Wood, Clyde Sheely, and A. W. Trusty.....	798		
Naphthalene. Elimination of Soluble Tar from Sulfonation Masses. J. A. Ambler and D. F. J. Lynch.....	598		
National Directory of Commodity Specifications.....	1036		
National Research Council. Division of Chemistry and Chemical Technology Officers.....	1027		
Naval Stores Series Ready for Distribution by Department of Commerce.....	1295		
Netherlands, Rayon Trade of.....	1036		
New Books.....	1036		
New Jersey Chemical Society Becomes Section of A. C. S. Unity in Chemistry. Editorial.....	1295		
Nickel-Copper Alloys. <i>See</i> Alloys.	1295		
Nickel Table Tops for Laboratories. O. B. J. Fraser.....	1295		
Nitrates, Modification of Scales' Method for Determination of. P. L. Hibbard.....	1295		
Nitric Acid, Vapor Pressure of Aqueous Solutions of. G. B. Taylor.....	1295		
NITROGEN:			
Agricultural Value of Some of the Newer Nitrogenous Fertilizers. J. G. Lipman and H. C. McLean.....	1295		
Cost of. Editorial.....	1295		
Effect of—and Carbon Dioxide Dilutions on Explosion Limits of Acetone and Methanol and Their Mixtures. H. Crouch and E. K. Carver.....	1295		
Fixation. Vision. Editorial.....	1295		
(<i>See also Ammonia, Synthetic.</i>)			
Mineral, Determination of—in Fertilizers. J. E. Breckenridge.....	1295		
Organic, Quality of—in Fertilizers. F. E. Bear.....	1295		
Solubility of a Mixture of Hydrogen and—in Liquid Ammonia. A. T. Larson and C. A. Black.....	1295		
Nitrogen Oxides in Sulfuric Acid. E. M. Jones.....	1295		
Nitrogen Oxides, Recovery of—from Gas Mixtures by Adsorption on Silica Gel. J. A. Almquist, V. L. Gaddy, and J. M. Graham.....	1295		
Nomenclature, Organic and Inorganic. Picture of International Committees on.....	1295		
Norit, Identification of—and Other Wood Charcoals. H. G. Tanner.....	1295		
NOTES AND CORRESPONDENCE.....	1295		
OBITUARIES:			
Campbell, Edward J. DeMille. A. H. White, 1204; Editorial.....	1295		
Chandler, Charles Frederick. Ellwood Hendrick, 1090; Editorial.....	1295		
Hillebrand, W. F. Editorial.....	1295		
Thorpe, Sir Edward.....	1295		
Officials, Attitude of—toward Science. The Public Official's Attitude. Editorial.....	1295		
OIL:			
Burning and Oil-Burning Equipment in Industrial and Chemical Plants. W. F. Schaphorst.....	1295		
Carbocal. Formula Weights of Low-Temperature Phenols. J. J. Morgan and M. H. Meighan.....	1295		
China Wood, Catalytic Effect of Lead and Manganese on the Drying of. G. E. Ludwig.....	1295		
Chinese Wood, Oxidation of. F. H. Rhodes and T. T. Ling.....	1295		
Cod-Liver Oils, Vitamin Potency of. XI—Butter Fats Produced on Summer Feeds. A. D. Holmes.....	1295		
XIII—Vitamin A Potency of Dogfish Liver Oil. A. D. Holmes and M. G. Pigott. (Chapman, Holmes, 764).....	1295		
Crank-Case:			
Automobile, Reclamation of. Charles Van Brunt and P. S. Miller. (Correction, 543).....	1295		
Better Crank-Case Draining Service. C. M. Larson.....	1295		
Effect of Crank-Case Dilution. D. P. Barnard, 4th.....	1295		
Used Automobile, Deterioration and Reclamation of. A. E. Flowers, F. H. McBerty, and Ronald Reamer.....	1295		
Used, Reclamation of Lubricating Oil from. F. H. Rhodes and H. H. Haon, Jr. (Van Brunt, 213).....	1295		
Crude, Surface Tension of. E. H. Harvey.....	1295		
Drying, Control Method for Boiling. J. S. Long and J. G. Smull.....	1295		
Evolution of Hydrogen Peroxide by Oils on Exposure to Light. G. F. A. Stutz, H. A. Nelson, and F. C. Schmutz.....	1295		
Fuel, Made Dutiable in Antigua.....	1295		
Gas and—Power Week. Editorial.....	1295		
Gasoline. <i>See</i> Gasoline.			
Hydrogas. Formula Weights of Low-Temperature Phenols. J. J. Morgan and M. H. Meighan.....	1295		
Linseed:			
Comparison of Monel and Copper Kettles in Boiling. C. Fichandler.....	1295		
Determination of Free Fatty Acid in Bodied—and Varnishes. L. M. Larsen and W. J. Young.....	1295		
Effect of Yellow and Brown Iron Oxide Pigments upon the Rate of Oxidation of. F. H. Rhodes and J. D. Cooper, Jr.	1295		
Rate of Molecular Weight Increase in the Boiling of. J. S. Long and Graham Wentz.....	1295		
Lubricating, Density of—at Temperatures from -140° to $+20^{\circ}$ C. H. K. Griffin.....	1295		
Marine Oils. Heterogeneous Catalysis. II—Hydrogenation of. A. S. Richardson, C. A. Knuth, and C. H. Milligan.....	1295		
Petroleum. <i>See</i> Petroleum.			
Production, Conference on.....	1295		
Production of—from Cigar Box Waste.....	1295		
Refining, Special Corrosion Problems in. Corrosion Symposium. R. E. Wilson and W. H. Bahlike.....	1295		
Tar Oils:			
Extraction of Phenols from—by the Caustic Soda Process. J. J. Morgan and M. H. Meighan.....	1295		
Formula Weights of Low-Temperature Phenols. J. J. Morgan and M. H. Meighan.....	1295		
Improved Methods for Determination of Phenols in. J. J. Morgan and M. H. Meighan.....	1295		
Transformer Oils, Methods of Testing. H. C. Staeger.....	1295		
Turbine—Deposit. A. G. Blakeley.....	1295		
Water-Gas Light, Carbureted, Influence of Operating Practice on Composition of. R. L. Brown and H. G. Berger.....	1295		
Oleoresin of Douglas Fir, Composition of. H. K. Benson and D. F. McCarthy.....	1295		
Organic Chemicals. <i>See</i> Chemicals.			
Organic Chemistry, National Symposium on.....	1295		
Organic Solutions. <i>See</i> Solutions.			
Orthophosphoric Acid. <i>See</i> Phosphoric Acid.			
Osborne, Thomas B. American Contemporaries. E. H. Jenkins.....	1295		
OXYGEN AGING TEST, SYMPOSIUM ON:			
Further Developments and Applications of the Bierer-Davis Oxygen Aging Test. J. M. Bierer and C. C. Davis. (Correction, 1197)	1295		

Discussion:

- Aging of Rubber Goods in Oxygen at Atmospheric Pressure. A. A. Somerville.....
 Aging with and without Antioxidants. H. A. Winkelmann.....
 Application to Factory Control of Stocks. J. D. Morron and H. E. Webster.....
 Application to Tire and Tube Stocks. H. B. Pushee.....
 Behavior of Tire Stocks by Various Aging Methods. W. W. Vogt. (Correction, 1197).....
 Low-Temperature Combustion Method for Oxidation of Rubber. W. N. Jones.....
 Use in Control of Rubber Stocks. W. E. Glancy.....
 Value in Testing Rubber Tubing and Rubberized Fabrics. H. L. Thomson.....
 Oxygen as a Factor in Corrosion. *See* Corrosion Symposium.
 Oxygen, Use of—in Manufacture of Water Gas. F. E. Vandaveer with S. W. Parr.....

- PACKAGES,** Small, Filling and Labeling. Tools of the Chemical Engineer—V. D. Killeffer.....

PAINT:

- "Aluminum," Some Special Properties of. J. D. Edwards and R. I. Wray.....
 Effect of Yellow and Brown Iron Oxide Pigments upon Rate of Oxidation of Linseed Oil. F. H. Rhodes and J. D. Cooper, Jr.
 Lithopone, Determination of Asbestine in. F. G. Germuth.....
 Microplastometer. Henry Green and G. S. Haslam. (See also Varnish)

- Palladium, New Method of Determining. H. E. Zschiegnert.....
 Paper, Kraft—from Lumber Waste. Vision. Editorial.....
 Paper-Making Materials, Peru Reduces Duty on Quantity Imports
 Paraffin Wax, Crystallizing Point of. A. P. Bjerregaard.....
 Parr, Samuel Wilson. American Contemporaries. Edward Bartow
 Pastes, Zinc Oxide and Lithopone, Rapid Method to Distinguish. E. O. Dunkley.....
 Oxy-Calorimeter. Principle and Application to the Determination of Energy Values of Fuels, Foods, and Excretory Products. F. G. Benedict and E. L. Fox.....

PATENTS:

- Buy from the Owner. Editorial.....
 Columbian's Patent Policy. Editorial.....
 Filing Foreign Patent Applications in Canada.....
 Some Interesting Chemical—Issued during the Past Year to American Inventors. E. A. Hill and F. B. Leech.....

- Peace, Chemistry and. Editorial.....
 Pease, Frederick Noah. American Contemporaries. M. E. McDonnell.....

- Pectin, Manufacture of. C. P. Wilson.....
 Pectin, Requirements of—for the Commercial Jelly-Maker. Eloise Jameson.....

- Pennsylvania State College Scholarship Day. Recognition of Scholarship. Editorial.....

- PERFUME:**
 Agencies in Canada Combine.....
 Detection of Diethylphthalate in. Frederick Breithut and P. M. Apfelbaum.....
 French—Research Center.....
 Perkin Medal Award. H. K. Moore. Complexity of Industrial Chemist.....

- Peroxide Fusions, Explosion Method for. W. F. Muehlberg.....
 Peru Reduces Duty on Quantity Imports of Paper-Making Materials.....

- PETROLEUM:**
 Chemical Problems in Water Driving of—from Oil Sands. P. G. Nutting.....
 Chemistry of "Sweetening" in—Industry. J. C. Morrell, G. L. Wendt. [See THIS JOURNAL, 16, 1113 (1924)].
 Distribution of Sulfur in the Fractions Derived from Crude Petroleum. A. P. Bjerregaard.....
 Gasoline. *See* Gasoline.

- Measurement of Absolute Viscosity of Light Distillates with Saybolt Thermo-Viscometer. A. R. Fortsch and R. E. Wilson.....
 Motor Fuel. K. G. Mackenzie.....
 Naphtha Distillates, Reduced Import Duty on.....
 Oil, Arsenated—as a Wood Preservative.....

- Relation between Boiling Point and Some Other Properties of—Products. J. B. Hill and S. W. Ferris.....
 Sulfuric Acid Absorption and Iodine Values of Various—Products and Cracked Distillates Obtained Therefrom. J. C. Morrell and Gustav Egloff.....

- Thermal Expansion of California—Oils. E. H. Zeitfuchs.....
 Vacuum Assay Distillation Test. A. G. Peterkin, Jr., and S. W. Ferris.....

- PHARMACOPEIA,** Tenth Revision of—Available.....

- PHENOLS:**
 Determination of Minute Amounts of—in Polluted Natural Waters. L. R. Vorce.....
 Extraction of—from Tar Oils by the Caustic Soda Process. J. J. Morgan and M. H. Meighan.....

- Low-Temperature, Formula Weights of. J. J. Morgan and M. H. Meighan.....

- Improved Methods for Determination of—in Tar Oils. J. J. Morgan and M. H. Meighan.....

- Phenol Resins and Resinoids. L. H. Baekeland and H. L. Bender. Phenol-Water and Phenol-Cresol Systems, Vapor Composition Relationships in. F. H. Rhodes, J. H. Wells, and G. W. Murray. *p*-Phenylenediamine, Aminosalicylic Acid, Succinic Acid, and Hydrocinnamic Acid, Electrolytic Preparation of. J. F. Norris, and E. O. Cummings.....

- Phosgene, Manufacture of—at Edgewood. Should the Arsenal Manufacture? Editorial.....

- PHOSPHATES:**
 Acid, Free Acid in. Its Determination and Value. P. McG. Shuey. Causes of Errors in the Analysis of High-Grade Phosphatic Materials. R. J. Caro and E. L. Larison.....

- Chemical Changes Occurring in Calcium Cyanamide-Acid Phosphate Mixtures. K. D. Jacob and J. M. Graham. Phosphoric Acid, Ortho-, Specific Gravity of Concentrated Solutions of. W. H. Ross and R. M. Jones.....
 Phosphoric Acid, Purification of—by Crystallization. W. H. Ross, R. M. Jones, and C. B. Durgin.....

- Phosphorus, Lipoid, Estimation of—in Cereal Products. O. S. Rask and I. K. Phelps.....
 Phosphorus, Rapid Determination of—in Bronze. W. E. Baulieu, Jr.

Photography, Color, Simplified—Revealed to French Academy.....	938
Phthalic Anhydride, Preparation of 2-Aminoanthraquinone from— and Chlorobenzene. Max Phillips.....	721
Physiology, Institute of, Rockefeller Foundation Establishes—at Copenhagen.....	20
Piperidinium Pentamethylenedithiocarbamate. Vulcanization Accelerators—I. G. S. Whitby and H. E. Simmons.....	931
Plasticizers, Use of—in Lacquers. A Brief Survey. B. K. Brown. (Correction, 873).....	568
Plastometer, Measurement of Cup Grease Consistency by Use of. P. K. Porter and W. A. Gruse.....	953
Platinum Theft, \$1800.....	309
Platinum Thefts. Editorial.....	224
Poison Gas. <i>See</i> Chemical Warfare.	
Poisoning, Industrial, by Aromatic Compounds. D. H. Killeffer.....	820
Politics, Institute of. Editorial.....	1102
POTASH:	
Alsatian, Outlook for—Production Brighter.....	706
Discovery of—in Crane County, Texas.....	186
From Greensand (Glaucosite). J. W. Turrentine, C. W. Whittaker, and E. J. Fox.....	1177
Potassium Chlorate, Assay of. A Comparison of Methods. Laboratories of Lehn and Fink.....	1277
Potassium Chlorate. Evaluation of Chlorates. E. C. Wagner.....	1183
Potentials, Electrode, Graphic Comparison of Potential Scales and. L. J. Birchler.....	622
Powder, Smokeless, Transformations of Diphenylamine during the Aging of. T. L. Davis and A. A. Ashdown.....	674
Power, Gas and Oil—Week. Editorial.....	224
Powers-Weightman-Rosengarten Company. American Chemical Industries.....	99
Precision in Chemical Specifications. Cook Book Chemistry.....	740
Pressure-Temperature Charts: Extended Ranges. George Calingaert and D. S. Davis.....	1287
Pressure-Temperature Charts for Organic Vapors. D. S. Davis.....	735
Priestley Home, Restoration of. Editorial. (See In 1926, 112).....	223
Printing Trades, Hygienic Conditions in.....	1141
Prize Essay Contest. <i>See</i> American Chemical Society.	
Prizes, Hugh Hill Offers—in Chemistry. "And Some Fell into Good Ground." Editorial.....	442
Procter and Gamble Company. American Chemical Industries.....	872
Professors, Exchange. Editorial.....	774
PROGRESS:	
In Chemical Equipment. Reported through Chemical Equipment Association by Its Members.....	1002
In Domestic Manufacture of Dyes and Other Synthetic Organic Chemicals during 1924. W. N. Watson.....	1018
Recent Additions to Tools for Research. A Report of Developments by Members of Association of Scientific Apparatus Makers of U. S. A.	1014
Some Interesting Chemical Patents Issued during the Past Year to American Inventors. E. A. Hill and F. B. Leech.....	1022
Ten Years of Sugar Refining. L. A. Wills.....	1028
Twelve Months of. A Chemical Review of the Year. D. H. Killeffer.....	995
Twenty-Five Years of Rubber Chemistry. W. C. Geer.....	1024
Public and Chemistry.....	1193
Publicity, Premature and Inaccurate. Laboring under Difficulties. Editorial.....	3
PUMP:	
Filter, New Technical Uses for. E. A. Vuilleumier.....	1278
Laboratory Circulating—for Corrosive Vapors. H. C. Kremer.....	298
Used Laboratory. D. H. Cameron.....	585
PYRITES:	
Pyrites, Production and Imports of—Continue Downward Trend in 1924.....	290
Pyrrole from New Sources—Some Uses. Joseph Michelman.....	471
QUARTZWARE, Laboratory, Elimination of Surface Devitrification on. F. C. Vilbrandt.....	835
RADIATION from Nonluminous Flames. R. T. Haslam, W. G. Lovell, and R. D. Hunneman.....	272
Radio, Constructive Broadcasting. Editorial.....	3
Raisin Industry, Example of Earning Power of Research in.....	396
RAYON:	
Du Pont—Company Extends Acreage of Tennessee Plant.....	847
Editorial.....	774
New Invention for Italian—Industry.....	1249
Trade of the Netherlands.....	702
(See also Silk, Artificial.)	
Reagents, Guaranteed, Report of Committee on, 780; Recommended Specifications for Analytical Reagent Chemicals. W. D. Collins, chairman.....	756
Rectifying Column Calculations, Graphical. E. V. Murphree.....	980
Rectifying Column Calculations. With Particular Reference to N Component Mixtures. E. V. Murphree.....	747
Reflector, New.....	1042
Refrigeration Brines. <i>See</i> Brines.....	
RESEARCH:	
Academic—and Industry. Address of J. F. Norris, President of A. C. S.	1088
Chemico-Medical, Institute of. Editorial.....	223
Earning Power of. Editorial.....	114
Earning Power of. Sun-Maid Raisin Growers' Association.....	396
Relation between—and Business. Handwriting on the Wall. A. D. Little.....	857
Second Census of Graduate—Students in Chemistry. J. F. Norris	755
Spirit of.....	100
Tools for, Recent Additions to. Report of Developments by Members of Association of Scientific Apparatus Makers of the U. S. A.	
Value of. Trusting False Gods. Editorial.....	332
Resins and Resinoids, Phenol. L. H. Baekeland and H. L. Bender.....	225
Resins, Study of—in Western Coal. H. K. Benson.....	21
Retorts, Continuous Vertical, Notes on. N. H. Memory.....	270
Rhe as Absolute Unit of Fluidity. E. C. Bingham.....	47
Rockefeller Foundation Establishes Institute of Physiology in Copenhagen.....	20
Rosin and Turpentine, Consumption of—by Industries.....	1240
RUBBER:	
Accelerators. Autoclave Not Necessary by Schidrowitz Method. P. Schidrowitz, J. F. Smith. [See THIS JOURNAL, 16, 1024 (1924)].	103

Accelerators, Organic, History of—in Rubber Industry. W. C. Geer and C. W. Bedford.....	393	Sodium Compounds from Natural Salines and Brines, Production of—in U. S. in 1924.....	1053
Accelerators, Vulcanization—I. G. S. Whitby and H. E. Simmons.....	931	Sodium Fluoride, Commercial, Volumetric Methods for Analyzing. H. Flisik.....	307
Crude, Measurement of—Consistency. Tentative Method Proposed by Crude Rubber Committee of Division of Rubber Chemistry. D. F. Cranor, chairman.....	1202	Sodium Fluosilicate as Insecticide, Further Experiments with. F. Tattersfield and C. T. Gimingham. [See THIS JOURNAL, 16, 1249 (1924)].....	323
Determination of—and Inorganic Materials in Soft—Goods. R. T. Meash and N. P. Hanna.....	161	Sodium Nitrite, Use of—in Curing Meats. W. L. Lewis, R. S. Vose, and C. D. Lowry, Jr.	1243
Distribution of Carbon Black in—Stock. E. B. Spear and R. L. Moore.....	936	Sodium Peroxide Fusions, Explosion Method for. W. F. Muchlberg.....	690
Electrodeposition of. S. E. Sheppard and L. W. Eberlin. (Correction, 838).....	711	Sodium Silicate, Relationship between Composition and Boiling Point of Aqueous Solutions of. J. Y. Cann and D. L. Check.....	512
Effect of Humidity in—Testing. R. B. Stringfield.....	833	SODIUM SULFATE:	
Latex Particles. E. P. Wightman and A. P. H. Trivelli. (Correction, 323).....	164	Action of—and Magnesium Sulfate on Calcium Aluminates. G. R. Shelton.....	1267
More Complete Evaluation of Pigment Reinforcement of. W. B. Wiegand.....	939	Action of—and Magnesium Sulfate on Constituents of Portland Cement. G. R. Shelton.....	539
Oxygen-Aging Test, Symposium on. See Oxygen Aging Test.		Disintegration of Portland Cement in Sulfate Waters. Thorbergur Thorvaldson, R. H. Harris, and David Wolochow.....	467
Physical Properties of. Microscopic Examination of. L. B. Sebrell, C. R. Park, and S. M. Martin, Jr.	1173	Sodium Sulfide, Analysis of. W. S. Calcott, F. L. English, and F. B. Downing.....	176
Plantation—Industry in the Middle East.....	720	SOLS:	
Plasticity Control in—Mixing. Paul Beebe and R. B. Stringfield.....	295	Colloidal Complications in the Thiocyanate Method of Estimating Soil Acidity. F. O. Anderegg and R. P. Lutz.....	1163
Relation between Dye Adsorption of Clays and Their Behavior in—Compounds. H. R. Thies.....	1165	Corrosive Action of.....	346
Report of Physical Testing Committee of Division of Rubber Chemistry. W. W. Vogt, chairman.....	535	Improved Tube for Determination of Decolorizing Value of. D. V. Moses and J. H. Griffith.....	901
Resilient Energy Criterion, As Applied to Shape of—Stress-Strain Curve. W. B. Wiegand.....	623	SOLUTIONS:	
Studies of Physical Properties of Balata and. C. R. Park.....	152	Aqueous, Corrosion in. Corrosion Symposium. W. D. Bancroft Alkali, Standard, Automatic Buret and Flask for. H. R. McMillin.....	336
Synthetic, Revival of. Editorial.....	992	Alkaloidal, Automatic Devices for Extracting. S. Palkin, A. G. Murray, and H. R. Watkins.....	592
Twenty-Five Years of—Chemistry. W. C. Geer.....	1024	Organic, Vapor Pressure of. And Application of Dühring's Rule to Calculation of Equilibrium Diagrams. E. H. Leslie and A. P. Carr.....	612
Ultra-Violet Microscope in Study of Vulcanized Latex Globules. Henry Green.....	802	SOLVENTS:	
Russia to Teach Chemical Warfare.....	1262	Automobile Lacquers and. D. B. Keyes.....	558
SABIN, Alvah H. American Contemporaries. G. W. Thompson..	212	Suitability of Various—for Extracting Vanilla Beans—Part III. J. B. Wilson and J. W. Sale.....	506
SAFETY IN INDUSTRY:		Two-Type Lacquer. D. B. Keyes.....	1120
Accident Records and How to Keep Them. C. B. Auel.....	1254	Sources, Original.....	1164
Cooperation of the Medical and Safety Departments. O. F. W. Cromwell.....	902	Spain, Match Factory to Be Built in.....	146
Dust Explosions in Industrial Plants. H. R. Brown.....	553	Specifications, Commodity, National Directory of.....	392
Editorial.....	1127	Spectrometer, Precision X-Ray, for Chemical Investigations. G. L. Clark, H. C. Weber, and R. L. Hershey.....	1147
Fire Hazards of Static Electricity. R. M. Clark.....	555	Spinach, Canned. See Canned Foods.	
Hazard of Carbon Monoxide to Public and to Industry. S. H. Katz.....	1056	Sprout Materials, Selenium Compounds as. F. M. Lougee and B. S. Hopkins.....	456
Hazards in Handling and Transportation of Acid. Safety Factor. M. F. Crass.....	667	Stains, Biological, Report of Commission on Standardization of. J. A. Ambler.....	542
How to Advertise the Safety Idea. R. T. Solensten.....	1275	Standards, Bureau of, Chief Chemist for. Editorial.....	1213
How to Make a Sanitary Survey of Your Plant. C. L. Ferguson.....	820	Standards, Bureau of, Completes over 173,000 Tests. Steam Boilers, Surface Tension as a Factor in the Priming of. E. B. Millard and T. E. Mattson. (French, 970).....	1238
Industrial Poisoning by Aromatic Compounds. D. H. Killeffer.....	827	Steam Generation. Editorial.....	685
Tetraethyl Lead Poison Hazards. Thomas Midgley, Jr.	686	Stearin Industry, Centennial of.....	443
Salesmen's Courses.....		STEEL:	
SALT:		Determination of Arsenic in. A. E. Cameron. (Correction, 1186) Molybdenum in, Rapid Determination of. O. L. Maag and C. H. McCollam.....	965
Spray, Accelerated Corrosion Tests of Copper-Zinc Alloys by. Corrosion Symposium. W. H. Bassett and H. A. Bedworth.....	1162	524	
1924 Statistics on.....		Still, Simple Electric Water. R. W. Gelbach.....	1050
Use—to Kill Barberries.....		String Bean Fibers, Coarse Cloth from.....	809
Salts, Inorganic, Effect of—on Polarization of Sugar Solutions. Preliminary Data. R. J. Brown.....	1035	Submerged Flame Boiler. Steam Generation. Editorial.....	443
Salts, Neutral, Destructive and Preservative Effect of—upon Hide Substance. A. W. Thomas and S. B. Foster.....	1275	Succinic Acid, Hydrocinnamic Acid, <i>p</i> -Phenylenediamine, and Aminosalicylic Acid, Electrolytic Preparation of. J. F. Norris and E. O. Cummings.....	305
Sands, Oil, Chemical Problems in Water Driving of Petroleum from. P. G. Nutting.....	553	SUGAR:	
Sanitary Survey, How to Make a—of Your Plant. C. L. Ferguson.....	857	Beet, Application of Enzymes to—Factory Control. H. S. Paine and R. T. Balch.....	240
Scholarship, Recognition of. Editorial.....	993	Benedict—Method, Effect of Sodium Carbonate Concentration in. A. J. Quick.....	729
Science and Business, Relation between. Handwriting on the Wall. A. D. Little.....	39	Cane, Defecation in—Manufacture. J. D. Bond.....	492
Science, Modesty in. Editorial.....		Cane, Inversion Losses in—Manufacture. C. F. Walton, Jr., M. A. McCalip, and W. F. Hornberger.....	51
Sea Water. See Water.....		Cane Sirup Bulletin.....	1122
Selenium, A Remarkable Property of. E. C. Crocker.....	163	Effect of Some Inorganic Salts on Polarization of—Solutions. Preliminary Data. R. J. Brown.....	39
Selenium Compounds as Spray Materials. F. M. Lougee and B. S. Hopkins.....	456	Formation in a Sulfite Digester. Quick-Cook Process. E. C. Sherrard and C. F. Suhm.....	194
Sewage and Waste Disposal, Chlorine in. J. C. Baker.....	1059	Hydrogen-Ion Concentration as a Basis of Refinery Alkalinity Control. A. A. Blowski and A. L. Holyen.....	1263
Shenandoah, Lessons of. Editorial.....	994	Invertase, Industrial Applications of. H. S. Paine, C. F. Walton, Jr., and M. S. Badollet.....	445
Shiner Filter Tube. E. C. Bingham.....	293	Physical Examination of—Juices. K. R. Lindfors.....	1155
Silica Gel, New Type of. H. N. Holmes and J. A. Anderson.....	280	Soft—Color Standards. H. I. Knowles.....	980
Silica Gel, Recovery of Nitrogen Oxides from Gas Mixtures by Adsorption on. J. A. Almquist, V. L. Gaddy, and J. M. Graham.....	599	Synthesis of. Outdoing Baly. Editorial.....	2
Silicon, Normal Sand-Cast Alloys of Aluminium Containing Small Amounts of. Samuel Daniels.....	485	Temperature and Analytical Changes in—Liquor during Bone Black Filtration. H. I. Knowles.....	1151
SILK, ARTIFICIAL:		Ten Years of—Refining. L. A. Wills.....	1028
New Plant in Breslau for Manufacture of—and Superphosphates With Special Reference to Viscose Process. M. G. Luft.....	714	Sulfates. See kind of sulfate.....	
(See also Rayon.)	1037	Sulfides, Effect of—on Alkaline Hydrolysis of Skin and Hair. H. B. Merrill.....	36
Silver Nitrate and Silver Chloride, Export of.....	432	SULFITE:	
Sirup, Grape, Removal of Sulfurous Acid from. W. V. Cruess and E. W. Berg.....	849	Liquor as a Protective Colloid. E. C. Bingham, G. F. Rolland, and G. E. Hilbert.....	952
Sirup, Sugar-Cane, Bulletin.....	1122	Process, Chemistry of. Studies of the Acid Hydrolysis of Wood. R. N. Miller and W. H. Swanson.....	843
Skin and Hair, Hydrolysis of. See Leather.....		Digester, Sugar Formation in. Quick-Cook Process. E. C. Sherrard and C. F. Suhm.....	194
Sludges, Reburned, Rate of Hydration of Lime from—as Influenced by Its Soluble Salts. A. H. White and R. M. True.....	520	Sulfonation Masses, Elimination of Soluble Tar from. J. A. Ambler and D. F. J. Lynch.....	61
Sludge, Turbine, Examination of. Albert Salatne.....	414	SULFUR:	
Smoke Screen at Fortress Munroe. (Photo).....	514	Corrosion Effect of Naphtha Solutions of—and Compounds. A. E. Wood, Clyde Sheely, and A. W. Trusty.....	798
Smokes, Screening. H. W. Walker.....	1061	Decrease in Production of—in 1924.....	282
SOAP:		Distribution of—in Fractions Derived from Crude Petroleum. A. P. Bjerregaard.....	142
Detergent Efficiencies of, Test for Comparing. R. M. Chapin.....	461	In Coal, Process for. Lead Oxide-Reduced Iron-Iodate Method. W. J. G. Meade.....	497
Fundamental Principles of Detergent Action Revealed by the Graphite Test. R. M. Chapin.....	1187	Oxidation of—as a Factor in Coal Storage. Storage of Coal and Spontaneous Combustion Round Table Discussion. S. W. Parr and E. R. Hilgard.....	117
Silicated, Free Alkali in. W. Edeler.....	196		
Some Effects of Age on Soap Solutions. R. M. Cobb. (Correction, 1295).....	1134		
Sodium Amalgam, Large-Scale Preparation of—in the Laboratory. R. R. Read and Carl Lucarini.....	480		
Sodium Carbonate Concentration, Effect of—in the Benedict Sugar Method. A. J. Quick.....	729		
Sodium Carbonate, Solid, Absorption of Hydrocyanic Acid by. F. V. Bichowsky.....	959		
SODIUM CHLORIDE:			
Effect of—on Hydrogen-Ion Concentration and Stability toward Alkali of Chromic Chlorides. K. H. Gustavson.....	945		
Vapor Pressures of Glycerol-Water and Glycerol-Water—Systems. A. R. Carr, R. E. Townsend, and W. L. Badger.....	643		
(See also Salt.)			

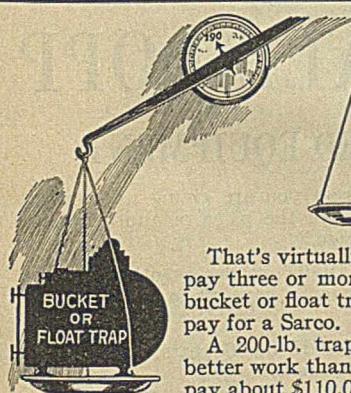
Sulfur Dioxide and Ammonia, Solubilities of—in Water. T. K. Sherwood.....	745	Vapor Pressure. <i>See under substance.</i>
SULFURIC ACID:		VAPORS:
Absorption and Iodine Values of Various Petroleum Products and Cracked Distillates Obtained Therefrom. J. C. Morrell and Gustav Egloff.....		Adsorption of—by Alumina. L. A. Munro and F. M. G. Johnson.....
Manufacture, Contact, Influence of Reaction Rate on Operating Conditions. W. K. Lewis and E. D. Ries.....		Organic, Pressure-Temperature Charts for. D. S. Davis.....
Nitrogen Oxides from. E. M. Jones.....		Same: Extended Ranges. George Calingaert and D. S. Davis.....
Partial Pressure of Water Out of Aqueous Solutions of. C. H. Greenewalt.....		
Sulfurous Acid, Removal of—from Grape Sirup. W. V. Cruess and E. W. Berg.....		VARNISHES:
Sun-Maid Raisin Growers' Association Exemplifies Earning Power of Research.....		Automobile Finishing. W. T. Pearce.....
Superphosphates, Manufacturers des Glaces et Produits Chimiques de St. Gobain to Increase Production.....		Color, Colloid Chemistry of. F. E. Bartell and M. Van Loo.....
Superphosphates, New Plant in Breslau for Manufacture of Artificial Silk and.....		I—Behavior of Surface Films, 925; II—Pitting, Seeding, Silting, and Surface Dulling.....
Surgeon General's Conference. Editorial.....		Insulating Chemical Problems in. H. C. P. Weber.....
Swedish Tariff Revision.....		Linseed, Determination of Free Fatty Acid in Bodied—and Oils. L. M. Larsen and W. J. Young.....
SYMPOSIA:		Value of Cryoscopy in Technical Investigation of. H. E. Hoffmann.....
Corrosion.....		Veneer Glue, Drawback on.....
Flame.....		Violets. <i>See Dyes.</i>
Oxygen Aging Test.....		Viscoloid Company Organized by du Pont.....
Storage of Coal and Spontaneous Combustion. Round Table Discussion.....		Viscoses:
TABLES, International Annual.....		Laboratory Production of. F. D. Snell.....
Table Tops, Nickel, for Laboratories. O. B. J. Fraser.....		Process. <i>See Artificial Silk.</i>
Tanning. <i>See Leather.</i>		Ripening of. George de Wyss.....
TAR:		Viscosity, Absolute, Measurement of—of Light Distillates with the Saybolt Thermo-Viscometer. A. R. Fortsch and R. E. Wilson.....
Examination of Dissolved—from Carbonization of Hard Maple. L. F. Hawley and H. N. Calderwood, Jr.....		WITAMINS:
Oils. <i>See Oil.</i>		In Canned Foods. III—Canned Spinach. W. H. Eddy, E. F. Kohman, and Victoria Carlsson.....
Soluble, Elimination of—from Sulfonation Masses. J. A. Ambler and D. F. J. Lynch.....		Molasses as a Source of Vitamin B. V. E. Nelson, V. G. Heller, and E. I. Fulmer.....
Wood Tars, Water Solubility of. H. N. Calderwood, Jr.....		New Vitamin for Reproduction, Observations on. Whole and Skimmed Milk Powders as Food. L. T. Anderegg and V. E. Nelson.....
Tartrate, Qualitative Test to Show Absence of Citrate or—in Mixtures. J. B. Peterson.....		Vitamin Potency of Cod-Liver Oils. XI—Butter Fats Produced on Summer Feeds. A. D. Holmes.....
TEMPERATURE:		XIII—Vitamin A Potency of Dogfish Liver Oil. A. D. Holmes and M. G. Pigott.....
Measurement of—of a Flowing Gas. R. T. Haslam and E. L. Chappell.....		Wheat Germ Extract, Commercial, Production and Nutritional Value of. Charles Hoffman.....
Pressure—Charts: Extended Ranges. George Calingaert and D. S. Davis.....		Vulcanization. <i>See Rubber.</i>
Pressure—Charts for Organic Vapors. D. S. Davis.....		
Tools of Chemical Engineer. IV—Automatic—Control. D. H. Killeffer.....		
TETRAETHYL LEAD:		
Poison Hazards. Thomas Midgley, Jr.....		WAR Waste, Cloth from.....
Surgeon General's Conference. Editorial.....		Washington Conference on the Limitation of Armament. <i>See Chemical Warfare.</i>
Texas, Discovery of Potash in Crane County.....		Waste Disposal and Sewage, Chlorine in. J. C. Baker.....
TEXTILES:		
Proofing Process, New.....		WATER:
Research. Editorial.....		Boiler, Apparatus for Control of—Treatment Based on Chemical Equilibrium. R. E. Hall, H. A. Otto, and H. A. Jackson.....
(See also kind of textile.)		Boiler Feed, Treatment of—by a Zeolite Softening System. S. T. Powell and J. H. Wolfe.....
Thermometer, Gallium-in-Quartz, Graduated to 1000° C. Sylvester Boyer.....		Boiler, System of—Treatment Based on Chemical Equilibrium. R. E. Hall.....
Thermoregulator. H. J. Wing with T. J. Thompson.....		Circulation Device. R. E. Jefferson.....
Thiocyanate Method of Estimating Soil Acidity, Colloidal Complications in. F. O. Anderegg and R. P. Lutz.....		Constant-Level Devices. <i>See Apparatus.</i>
Thorpe, Sir Edward, Passing of.....		Glycerol—and Glycerol—Sodium Chloride Systems, Vapor Pressures of. A. R. Carr, R. E. Townsend, and W. L. Badger.....
Thyroid Gland, Influence of—on Oxidation in Animal Organism. Chandler Lecture. E. C. Kendall.....		Influence of Curvature on Air Saturation of—and Its Relation to the Air-Binding of Filters. J. R. Baylis.....
Titanium Tetrachloride Smoke Screen. (Photo).....		Partial Pressure of—Out of Aqueous Solutions of Sulfuric Acid. C. H. Greenewalt.....
Titanous Chloride, Analysis of Synthetic Indigo by Means of. F. L. English and W. S. Calcott.....		Phenol—and Phenol-Cresol Systems, Vapor Composition Relationships in. F. H. Rhodes, J. H. Wells, and G. W. Murray.....
Titration, Electrometric. J. C. Brünlich.....		Polluted Natural, Determination of Minute Amounts of Phenols in. L. R. Vorce.....
o-Tolidine Solution, Preparation of—for Estimation of Chlorine. C. E. Roake.....		Sea, Control of—Flowing into Lake Washington Ship Canal. E. V. Smith and T. G. Thompson.....
Tools for Research, Recent Additions to. Report of Developments by Members of Association of Scientific Apparatus Makers of the U. S. A.		Still, Simple Electric. R. W. Gelbach.....
Tools of Chemical Engineer. D. H. Killeffer. IV—Automatic Temperature Control.....		Temperatures.....
V—Filling and Labeling Small Packages.....		Water Gas. <i>See Gas.</i>
Trade, Foreign, in Chemicals in 1924. Otto Wilson.....		Wax, Paraffin. <i>See Paraffin.</i>
Trade Series, Two New—Ready for Distribution by Department of Commerce.....		Weathering Test, A. S. T. M., at Pittsburgh. E. S. Taylerson. (See THIS JOURNAL, 16, 1287 (1924).)
Transformer Oils. <i>See Oil.</i>		Weatherproofing of Gypsum Block.....
Triphenylmethane, Spectrophotometric Identification of Dyes. III—Basic Violets of—Group. W. C. Holmes.....		Welding on Boilers. S. W. Miller.....
Tubes, Hard-Glass Ignition, Substitute for. G. W. Muhleman.....		Wheat and Flour, Determination of Moisture in. Part III. Harry Snyder and Betty Sullivan.....
Tulsa Meeting. <i>See American Chemical Society.</i>		Wheat Germ Extract, Commercial, Production and Nutritional Value of. Charles Hoffman.....
Tungsten, Alloying—with Aluminium Containing Ten Per cent Copper. M. R. Whitmore and F. T. Sisco.....		WOOD:
Turbine Oil. <i>See Oil.</i>		Acetone by Distillation of—with Lime. A. W. Schorger.....
Turbine Sludge, Examination of. Albert Salathe.....		Chemistry of Sulfite Process. Studies of Acid Hydrolysis of Wood. R. N. Miller and W. H. Swanson.....
Turmeric Paper, Double-Reacting. William Brinsmaid.....		Composition of Oleoresin of Douglas Fir. H. K. Benson and D. F. McCarthy.....
Turpentine and Rosin, Consumption of—by Industries.....		Distillate, Fresh, Highly Reducing Substances in. R. J. Williams, P. A. Lasselle, and H. A. Reed.....
Turpentine Cup. Vision. Editorial.....		Distillers, Synthetic Methanol and. L. F. Hawley.....
ULTRA-VIOLET LIGHT:		Distribution of Lignin in. G. J. Ritter.....
Action—in Various Gases on Metals.....		Effect of Presteaming on Hydrolysis of. E. C. Sherrard and J. O. Closs.....
Germ-Killing Effect of—Measured.....		Examination of Dissolved Tar from Carbonization of Hard Maple. L. F. Hawley and H. N. Calderwood, Jr.....
Microscope in Study of Vulcanized Latex Globules. Henry Green		Preservative, Arsenated Petroleum Oil as. W. L. Tanner.....
Unity in Chemistry. Editorial.....		Sugar Formation in a Sulfite Digester. Quick-Cook Process. E. C. Sherrard and C. F. Suhm.....
VACUUM Assay Distillation Test. A. G. Peterkin, Jr., and S. W. Ferris.....		Tars, Water Solubility of. H. N. Calderwood, Jr.....
Vacuum Door. R. F. Mehl and D. F. Smith.....		Wool Scourers' Effluent, Clarification of—and Recovery of Wool Fats. Jean de Raeve.....
Vanadic Acid, Diphenylamine as Indicator in Reduction of. N. H. Furman.....		World Industrially Unbalanced. Editorial.....
Vanadium Corporation of America and Its Predecessor, The American Vanadium Company. American Chemical Industries. B. D. Saklatwalla.....		
Vanilla Beans, Suitability of Various Solvents for Extracting. Part III. J. B. Wilson and J. W. Sale.....		
Vanilla Extracts, Identification of Sources of. C. B. Gnadinger.....		X-RAY Spectrometer, Precision, for Chemical Investigations. G. L. Clark, H. C. Weber, and R. L. Hershey.....
Van Slyke, Lucius L. American Contemporaries. R. W. Thacher.....		X-Ray Studies, New, of the Ultimate Structures of Commercial Metals. G. L. Clark, E. W. Brugmann, and S. D. Heath.....
Vapor-Air Mixtures, Apparatus for Preparing—of Constant Composition. W. P. Yant and F. F. Frey.....		Zeolite Softening System, Treatment of a Boiler Feed Water by. S. T. Powell and J. H. Wolfe.....
		Zinc Action of Calcium Chloride Brines on Galvanized Coatings. A. C. White.....
		Zinc-Copper Alloys. <i>See Alloys.</i>
		Zinc Oxide and Lithopone Pastes, Rapid Method to Distinguish. E. O. Dunkley.....

A Valuable Book Send for it

We have gathered together and put in book form information based on years of experience in Filter Press Work. This catalog is of vital interest to every manufacturer who filters or clarifies any kind of substance. It will help you choose the proper press for your product. Send for it today.

T. SHRIVER & CO.
830 Hamilton Street Harrison, N. J.

SHRIVER FILTER PRESSES



*Do You
Buy Steam
Traps by
the Pound?*

That's virtually what you do when you pay three or more times as much for a bucket or float trap as you would have to pay for a Sarco.

A 200-lb. trap won't do any more or better work than a 10-lb. Sarco. So why pay about \$110.00 for 190 lbs. additional iron in the heavier trap when you could buy that much iron for \$19.00.

Of course you get about thirty-five additional parts in the big trap not found in a

SARCO

STEAM TRAP

But a greater number of parts means more parts to get out of order and to carry in stock.

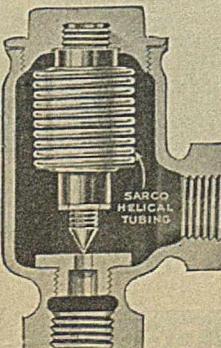
The No. 9 Sarco Steam Trap is of the self-adjusting, balanced-pressure type. Is suitable for any steam pressure from 0 to 100 lbs.

Let us send you a Sarco on 30 days' free trial without obligation on your part. It will only take a few minutes to screw it into your pipe line and give it a trial. And it may be the means of saving you hundreds of dollars.

Write for Booklet D-260

SARCO CO., Inc.

6 Park Place, New York City
Boston Chicago Detroit
Buffalo Cleveland Philadelphia
Peacock Bros., Ltd., Montreal



They Have Some BIG Advantages

IXL Herringbone Gears and Speed Reducers are especially adapted for heavy duty drives, high speeds, continuous service, where high efficiency is an important factor and where vibration and noise are objectionable.

Advantages of Continuous



Generated Teeth with
30 Degree Helix Angle

1. Greater load carrying capacity.
2. Greater strength of tooth.
3. Greater Bearing surface per tooth.
4. No undercutting of teeth.
5. Extreme quietness of action.
6. Narrower faced gears to transmit same HP.
7. Elimination of Backlash.
8. Minimum vibration.

We make single, double and triple speed reduction units. Capacities up to 150 H.P. and Reduction ratios up to 350-to-1.

**FOOTE BROS. GEAR
& MACHINE CO.**

254-264 N. Curtis St. Chicago, Ill.

*Sales offices in all principal
cities in U. S. and Canada.*

We Manufacture
Cut Gears of all
Kinds
Micarta Pinions
Micarta Timing
Gears
Flexible Couplings
Gear Racks
Speed Reducers
Special Machinery

FOOTE BROS. GEAR & MACHINE CO.

254-264 North Curtis Street
Chicago, Illinois



Established 1875

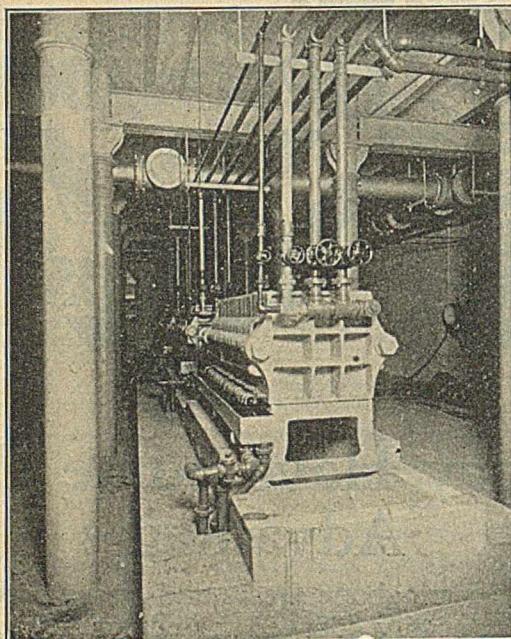
Please send us full information on IXL Herringbone Gears or Speed Reducers to meet our requirements as per the enclosed specifications.

A-128

Address _____

Signed _____

SPERRY FILTER PRESSES



Filtering Syrup

Anheuser-Busch, Inc., of St. Louis have installed ten Sperry Presses for filtering syrup and separating maltose mash.

Sperry Filter Presses have earned an enviable reputation for consistent service combined with minimum operating expense. They are used almost exclusively in modern plants throughout the country.

Twenty years from now these Sperry Presses will still be giving satisfactory service—long service life is one of the characteristics Sperry possesses.

Tell your filter press troubles to

D. R. SPERRY & CO.

*Engineers and Manufacturers
BATAVIA, ILL., near Chicago*

Let us quote on your filter cloth requirements either in sewed cloths or in rolls.

New York Agent:

H. E. JACOBY
95 Liberty St.
New York City

Pacific Coast Agent:

B. M. PILHASHY
627 Merchants Exchange Bldg.
San Francisco, Cal.

NO LEAKS—IF YOU INSTALL DOPP

SEAMLESS—LEAKLESS JACKETED EQUIPMENT

One customer writes: "The 2 kettles which we purchased from you are giving us excellent satisfaction. We purchased both of these to take the place of another make which was giving us continual trouble from leakage."

Another says: "We have experienced no difficulty with the DOPP kettles as otherwise you can readily appreciate it would be impossible for us to have them in use for 22 years without repairing them."

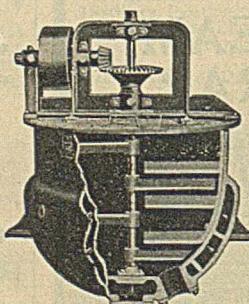
And a third: "We have been using DOPP seamless kettles for 15 or 20 years. The life of the kettles is evidently like Gibraltar. Never Weakens."

It will pay you to learn all about DOPP



KETTLES: 1 to 1000 Gallons

ASK FOR CATALOG VII



MIXERS: 16 Styles Vacuum and Pressure

Pans: 10-2000 Gals.

SOAP CRUTCHERS

1000-4500 lbs. capacity

Branch Offices

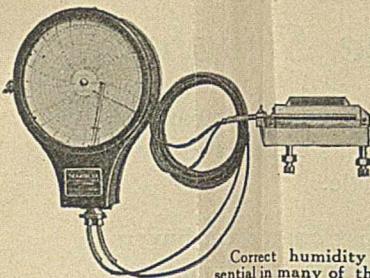
New York
San Francisco

Boston
Toronto

Los Angeles
Montreal

SOWERS MANUFACTURING CO., 1303 Niagara St., Buffalo, N. Y.

ADOPT THE DOPP

In Textile Mills—*Keep
Humidity
Records!*

Correct humidity conditions are essential in many of the operations in the making of cloth.

It is an easy matter to regulate the humidity when you know the exact conditions at all times.

The logical method is to use a Bristol Wet and Dry Bulb Recording Thermometer (or Psychrometer) which automatically records the temperatures at both bulbs. By means of handy tables supplied with the instrument, chart readings are easily translated into relative humidities.

Leading textile mills in both North and South use Bristol Psychrometers exclusively.

TRADE MARK

BRISTOL'S

REG. U.S. PAT. OFFICE.

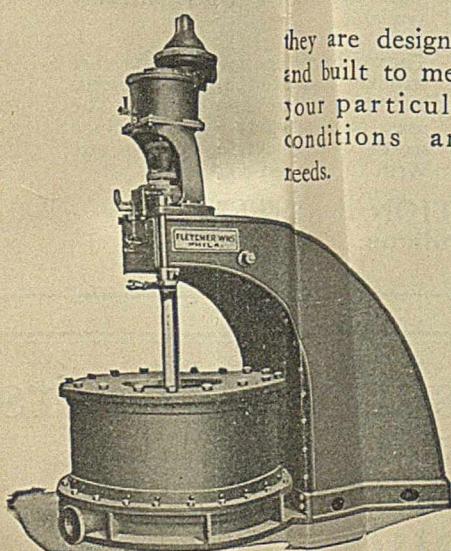
The Bristol Company, Waterbury, Conn.

Bristol Records Control Industry

FLETCHER CENTRIFUGALS FOR CHEMICAL PLANTS

give best results because

they are designed
and built to meet
your particular
conditions and
needs.



Fletcher Cantilever Suspended Steam Turbine
Driven Centrifugal

FLETCHER WORKS

Incorporated
Formerly Schaum & Uhlinger

Glenwood Avenue and Second Street
PHILADELPHIA, U. S. A.

Ready Folded for the Busy Chemist

Time was when a laboratory using pleated filter papers could let a boy spend his spare time preparing them. Today laboratory boys or "technical assistants" are too expensive a luxury to use for such a task, especially when WHATMAN Folded Filters are available. These papers are used in sugar, fertilizer, dye, drug and other laboratories where speed and strength are essential.

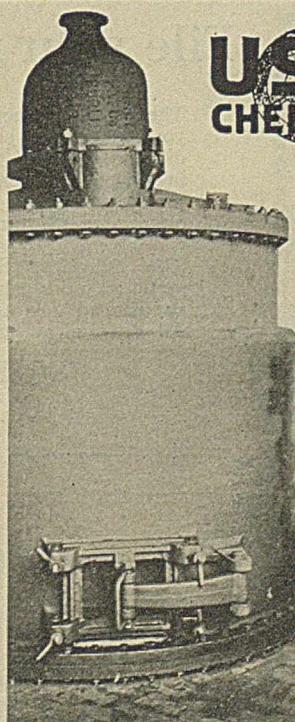
Also available in large sizes with parchmentized points for greater strength.

*Send for usable samples also Folio No.
F. 24, descriptive of all WHATMAN Filter
Papers.*

H. REEVE ANGEL & CO., Inc. 711 Spruce Street
NEW YORK, N. Y.

WHATMAN

High Grade FILTER PAPERS



USICAST CHEMICAL CASTINGS

Modern equipment in our various foundries makes it possible to cast the largest and most intricate chemical castings. A careful laboratory inspection is made of both raw materials and the casting itself and specifications are carefully adhered to.

United States Cast Pipe and Foundry Co.

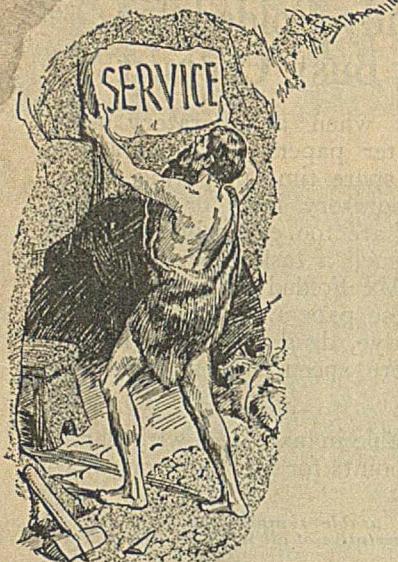
General Office, Burlington, N. J.

SALES OFFICES

Philadelphia
Pittsburgh
Cleveland
Minneapolis

Chicago
Buffalo
Dallas

New York
Birmingham
San Francisco
Kansas City



Wild Promises and Stone Shingles

WILD promises of superior service have been bandied back and forth by manufacturers ever since the first tradesman hung out his stone shingle.

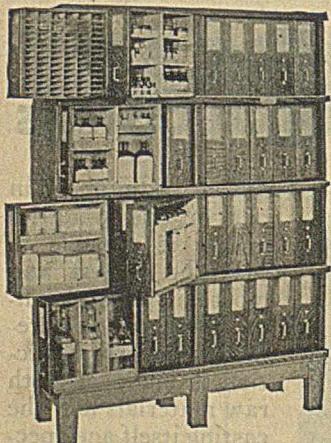
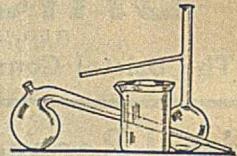
So we are attempting to merit the patronage of our buyers by just selling Glassware and Apparatus which is made as accurately and as good as expert workers and modern methods of manufacture will allow. We want to gain your confidence, not by selling you promises which are mere promises, but by selling you quality which is a fact.

We manufacture Apparatus of all descriptions and distribute complete lines of PYREX Glassware, COORS Porcelain and Standard Laboratory Equipment. Let us be your Laboratory Stockroom.

THE EMIL GREINER COMPANY

Chemical Glassware, Laboratory Supplies and Chemicals

55 VANDAM ST., NEW YORK, N. Y.



File your materials the Schwartz way!

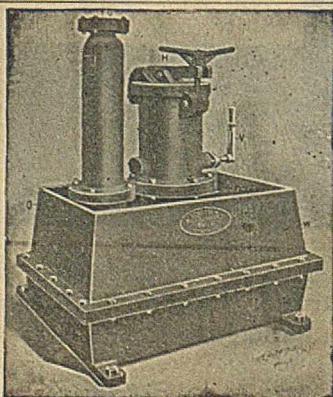
The Schwartz Sectional System keeps your laboratory stock in perfect condition, protecting it from dust, light, breakage and deterioration. It enables you to locate any chemicals, re-agents or specimens instantly.

The Schwartz System consists of sectional unit cabinets with drawers partitioned for articles of all sizes. All drawers swing at any angle, ex-

posing all articles to view the same as if on an open shelf. The alphabetical index makes every article instantly available.

The Schwartz sectional units are strongly constructed of oak or birch, and finished as purchaser desires. The users of the Schwartz System include scores of great industries, colleges, etc. Write for illustrated booklet.

SCHWARTZ SECTIONAL SYSTEM
Indianapolis, Indiana, U. S. A.



Pressure type sulphur burners

have no moving parts and are free from SO₂ leakage

**SCHUTTE
KOERTING**

SULPHUR BURNERS

are operated under pressure. Six sizes—12 to 100 lbs. per hr.

Send for Bulletin 7-S.

SCHUTTE & KOERTING CO., 1160 Thompson St., PHILADELPHIA, PA.

