

AUTHOR INDEX

THE JOURNAL OF INDUSTRIAL AND ENGINEERING CHEMISTRY

VOLUME XI—1919

ACREE, S. F. Use of Standard Dies in Making Ground Glass Joints.....	338	BOVIE, W. T. AND J. BRONFENBRENNER. Studies on Canning. An Apparatus for Measuring the Rate of Heat Penetration.....	568
ADAMS, E. Q., J. K. STEWART, L. E. WISE AND C. H. LUND. Synthesis of Photosensitizing Dyes—Pinaverdol and Pinacyanol.....	460	BRALEY, S. A. Bibliography on the Use of "Cupferron" as a Quantitative Reagent.....	1144
ALDRICH, T. B. Efficient Laboratory Funnel for Filtering Neutral Liquids, Especially the Volatile Organic Solvents.....	139	BREITHUT, F. E. Personnel Section, C. W. S., U. S. A.	516
ALEXANDER, J. Handbook of Colloid Chemistry, by Ostwald. Translated by Fischer, with notes by Hatschek. (Book Review).....	810	BREYER, F. G. The Zinc Industry, by Smith. (Book Review).....	177
ALLISON, V. C. Device for Removing Plugs from Stopcocks.....	468	BRONFENBRENNER, J. AND W. T. BOVIE. Studies on Canning. An Apparatus for Measuring the Rate of Heat Penetration.....	568
AND G. W. JONES. Carbon Tetrachloride, Chloroform and Carbon Hexachloride from Natural Gas.....	639	BROOKS, B. T. Tables of Refractive Indices, Compiled by Kamthack and Edited by Goldsmith. (Book Review).....	614
AND S. H. KATZ. Investigation of Stenches and Odors for Industrial Purposes.....	336	BROWN, C. O. U. S. Chemical Plant for Manufacturing Sodium Cyanide, Saltville, Va.	1010
AND M. H. MEIGHAN. Determination of Methyl Chloride in Gas Mixtures.....	943	BROWNE, C. A. Industrial and Agricultural Chemistry in British Guiana; with a Review of the Work of Prof. J. B. Harrison. Two Hundred and Fiftieth Anniversary of Chemical Industry in America.....	874
ANDERSON, E. Double Salts of Calcium and Potassium and Their Occurrence in Leaching Cement Mill Flue Dust.....	327	BROWNE, F. L. Proximate Analysis of Commercial Casein.....	1019
ANDERSON, R. P. Analysis of Natural Gas and the Calculation and Application of Results.....	299	BRUBAKER, H. W. Study of the Oil from Sumac (<i>Rhus Glabra</i>).....	950
ANDERSON, T. H. Taxing United States Patents. Patent Symposium, Philadelphia Meeting, A. C. S.	938	BRUETT, E. M. Utility of Blanching in Food Canning. Effect of Cold Shock upon Bacterial Death Rates.....	37
ANDREWS, W. W. An International Sugar Scale.....	73	BUC, H. E. Chemicals Received by the Bureau of Chemistry during the War (See Bigelow, 1172).....	1140
ARNY, H. V. Contribution to Symposium on Institute for Drug Research.....	67	BUCK, E. C. Special Library Service in the Barrett Company. Library Symposium, Buffalo Meeting, A. C. S.	588
C. KISH AND F. NEWMARK. Color Standards for Cottonseed Oil.....	950	BURD, J. S. AND G. R. STEWART. Course of Reaction in Explosions of Dilute CS ₂ -Air Mixtures.....	130
ASH, L. H., J. H. NORTHRUP AND R. R. MORGAN. Fermentation Process for the Production of Acetone and Ethyl Alcohol.....	723	BURRELL, G. A. Research Division, Chemical Warfare Service, U. S. A., 93; Correction.....	489
BABINGTON, F. W. AND A. TINGLE. Determination of Small Amounts of Benzene in Ethyl Alcohol.....	555	BUTLER, N. M. Letter Addressed to the Rector of the University of Upsala by President Butler, of Columbia University. Note.....	597
BACON, R. F. Industrial Fellowships of the Mellon Institute. On Wood Charcoal as a Catalyzer and Its Use as an Absorbent in Gas Masks.....	371	BYRON, O. AND A. C. NEISH. Motion Pictures in the Training of the Chemist.....	699
Work of the Technical Division, Chemical Warfare Service, A. E. F. AND W. A. HAMOR. Some Present-Day Problems of Chemical Industry. Symposium on Future of Certain American-Made Chemicals, Buffalo Meeting, A. C. S.	891	CABLE, D. E. AND S. A. MAHOOD. Reaction Products of Alkaline Sawdust Fusion; Acetic, Formic, and Oxalic Acids and Methyl Alcohol.....	651
BACON, W. S. Proving Division, C. W. S., U. S. A.	470	CAIN, J. R. AND L. C. MAXWELL. Electrolytic Resistance Method for Determining Carbon in Steel.....	852
BADGER, W. L. Nitrogen Generator for Laboratory Use.....	513	CALCOTT, W. S. B. HUMISTON AND E. C. LATHROP. Explosibility and Inflammability of Dyes.....	1075
BAEKELAND, L. H. Dr. Hesse's Suggestion of Renewal Fees. Patent Symposium, Philadelphia Meeting, A. C. S.	1052	CAMPBELL, A. A. C. S. Committee Report on Tentative Standard Methods for the Sampling and Analysis of Commercial Soaps and Products. (See Low, 1169).....	785
Reorganization de l'Industrie Chimique en France, by E. and P. Grandmougin. (Book Review).....	938	CAMPBELL, A. A. Data on Platinum Gauze Used as a Catalyzer for the Oxidation of Ammonia.....	468
Report of the Patent Committee to the National Research Council, 250; Correction.....	1002	Wire Cloth and Its Adaptability to the Chemical Industry.....	761
AND W. R. WHITNEY. Naval Consulting Board of the United States.....	380	CAMPBELL, E. D. Some Mix-Crystals of Calcium Ferrite and Aluminum.....	116
BAILEY, D. H. N. HOLMES, F. F. JEWETT AND G. LEAVELL. Anti-Dimming Preparations for Gas Masks.....	248	CAPPS, J. H. AND G. B. TAYLOR. Effect of Phosphine and Hydrogen Sulfide on the Oxidation of Ammonia to Nitric Acid.....	27
BAILEY, H. S. AND G. S. JAMESON. American Tomato Seed Oil.....	1111	CARLETON, P. W. Anti-Dimming Compositions for Use in the Gas Mask.....	1105
BAJDA, J. J. New Reflux Condenser.....	850	CARON, M. H. Treatment of Low Grade Nickel Ores. (See Davis, 644).....	1171
BAKER, N. D. Chemistry in Warfare. Address, Philadelphia Meeting, A. C. S.	52	CASE, H. N. Paper Tearing-Resistance Tester.....	49
Reply to Resolutions Regarding Chemical Warfare Service Transmitted by American Chemical Society. (See Parsons, 788).....	921	CATHCART, W. R. Modern Chemistry and Chemical Industry of Starch and Cellulose, by Chaudhuri. (Book Review).....	390
BANCROFT, W. D. Applications of Electrolysis in Chemical Industry, by Hale. (Book Review).....	66	CHANDLER, C. F. Presentation Address. Perkin Medal Award.....	147
BARBOUR, H. G. Contribution to Symposium on Institute for Drug Research.....	613	CHANAY, N. K., R. E. WILSON AND A. B. LAMB. Gas Mask Absorbents.....	420
BARTLETT, D. K. Chlorination of Water, by Race. (Book Review).....	797	CHOATE, J. H., JR. German Methods and Our Present Situation. Address, Buffalo Meeting, A. C. S.	403
BASKERVILLE, C. Skin Diseases from Certain Lubricants.....	954	CHRISTIANSEN, W. G. O. Determination of Aniline in Dilute Aqueous Solution.....	763
BAUGHMAN, W. F. AND W. W. SKINNER. Determination of Bromide in Mineral Waters and Brines. Determination of Iodide in Mineral Waters and Brines.....	563	CLAMICIAN, G. Acceptance of Honorary Membership in the A. C. S.	789
BEAL, G. D. AND E. A. GLENZ. Composition of the Fruit of the Virginia Creeper, <i>Ampelopsis quinquefolia</i>	959	CLARK, J. M. Solubilities, Separation, and Purification of Anthracene, Carbazol and Phenanthrene.....	204
BECKMAN, J. W. Annual Chemical Directory of the United States, Edited by Lovelace and Thomas. (Book Review).....	178	CLARK, L. F. Permanganate Method for Copper.....	1138
Charecol in Sweden. Relationships in Chemistry.....	1063	CLARKE, H. T. Preparation of Pure Organic Chemicals. Symposium on Future of Certain American-Made Chemicals, Buffalo Meeting, A. C. S.	475
BEISTLE, C. P. Shipping Containers.....	145	AND C. E. K. MEES. New Yellow Dye and Light Filters Made from It.....	454
BELL, J. M. Graphical and Mechanical Computation, by Lipka. (Book Review).....	674	CLARKE, W. F. AND W. D. COLLINS. Lead in Pharmaceutical Zinc Oxide.....	138
AND E. O. CUMMINGS. Studies on the Nitrotoluenes. II—Refractive Indices of Mixtures of <i>p</i> -Nitrotoluene, 1,2,4-Dinitrotoluene and 1,2,4,6-Trinitrotoluene.....	390	CLEVENGER, C. B. Rapid and Convenient Method for the Preparation of Conductivity Water.....	964
AND C. H. HERTY, JR. Studies on the Nitrotoluenes. III—Binary Systems of the Components: <i>p</i> -Nitrotoluene, 1,2,4-Dinitrotoluene, and 1,2,4,6-Trinitrotoluene.....	1028	CLOWES, G. H., G. SR. J. PERROTT, B. GORDON AND E. L. GREENSFELDER. Effect of Moisture Content on the Permeability of Fabrics to Mustard Gas.....	1016
Studies on the Nitrotoluenes. IV—The Three Component System: <i>p</i> -Nitrotoluene, 1,2,4-Dinitrotoluene, and 1,2,4,6-Trinitrotoluene AND J. P. SAWYER. Studies on the Nitrotoluenes. I—Binary Systems of a Nitrotoluene and Symmetrical Trinitrometaxylene.....	1128	COLLINS, W. D. Acid Test on Enamel Ware.....	757
BELL, M. L. AND C. E. NESBITT. Interesting Facts Concerning Refractories in the Iron and Steel Industry. Refractories Symposium, Philadelphia Meeting, A. C. S.	1025	AND W. F. CLARKE. Lead in Pharmaceutical Zinc Oxide.....	138
BENTON, A. F. Gas Flow Meters for Small Rates of Flow.....	1149	COOK, R. V. AND R. H. UHLINGER. Manufacture of Methylidichlorarsine, 105; Correction.....	380
BEROLZHEIMER, D. D. Bibliography on Carbonyl Chloride (Phosgene) and Its Derivatives. Gases Used in Warfare.....	623	COTTON, W. J. Examination of the College Trained Chemist for Government Service.....	1142
BEYER, G. F., J. R. EOFF AND W. V. LINDE. Production of Glycerin from Sugar by Fermentation.....	263	COTTRELL, F. G. Address of Acceptance. Perkin Medal Award.....	148
BIGELOW, W. D. Specifications for Reagents. (See Buc, 1140).....	256	CRAIG, A. Analysis of Alloys of Tin.....	750
BJERREGAARD, A. P. Method for Bringing Elementary Sulfur into Solution for Analysis.....	1172	CRANE, E. J. Are you Interested in Chemical Spellings, Names and Pronunciations?.....	797
BOGERT, M. T. Chemical Warfare Service Assists in Securing Employment. Note.....	1055	Chemical Nomenclature.....	72
BOHN, R. T., G. L. KELLEY, J. A. WILEY AND W. C. WRIGHT. Determination of Vanadium in Steels by Electrometric Titration. The Selective Oxidation of Vanadyl Salts by Nitric Acid in the Presence of Chromic Salts.....	254	Chemical Research in the Various Countries of the World. Note. Novel Method of Removing Metal from an Eye.....	378
	632	CRAWFORD, A. C. Contribution to Symposium on Institute for Drug Research.....	892
		CROSSLEY, T. L. Melting Point of Rosin.....	52
		CULBERTSON, W. S. American Chemical Industries and the Tariff Commission. Address, Buffalo Meeting, A. C. S.	400
		CUMMINGS, E. O. AND J. M. BELL. Studies on the Nitrotoluenes. II—Refractive Indices of Mixtures of <i>p</i> -Nitrotoluene, 1,2,4-Dinitrotoluene and 1,2,4,6-Trinitrotoluene.....	1028

CUSHMAN, A. S. High Explosives: A Practical Treatise, by Colver. (Book Review).....	177	GREENMAN, E. D. Functions of the Industrial Library. Library Symposium, Buffalo Meeting, A. C. S.	584
DAHM, H. L. Some Notes on Acetylsalicylic Acid.....	29	Librarians for Special Libraries. (See Smith, 599).....	701
DAVIS, C. E. AND M. T. HARVEY. Determination of the Freezing-Point Curves and Densities of Denatured Alcohol-Water Mixtures.....	443	Selective Bibliography on Waste Utilization as Affected by the War.....	1171
DAVIS, C. W. Reduction of Tungstic Oxide.....	201	GREENSFELDER, F. L., G. H. CLOWES, G. ST. J. PERROTT AND B. GORDON. Effect of Moisture Content on the Permeability of Fabrics to Mustard Gas.....	1016
Treatment of Low-Grade Nickel Ores, 644; (See Caron, 1171) Correction.....	798	GRIFFIN, R. C. Estimation of Fibers in Paper.....	968
DAVISON, B. S. Scrubber for Ammonia Distillations.....	465	GUPPY, C. M. New Publications.....	1183
AND J. T. PARSONS. Determination of Total Nitrogen Including Nitric Nitrogen.....	306	GUREVICH, L. J. AND E. WITCHERS. Comparative Tests of Palau and Rhotanium Ware as Substitutes for Platinum Laboratory Utensils.....	570
DEWEY, B. Production of Gas Defense Equipment for the Army.....	185	HAAS, E. University Chemistry Clubs. Note.....	1094
DIETER, L. V. AND M. A. POZEN. Disinfection with Formaldehyde. The Practical Efficiency of Some Substitutes for the Permanaganate-Formalin Method.....	448	HALL, W. T. Manual of the Chemical Analysis of Rocks, by Washington. (Book Review).....	1001
DOHME, A. R. L. Contribution to Symposium on Institute for Drug Research.....	59	HAMOR, W. A. AND R. F. BACON. Some Present-Day Problems of Chemical Industry. Symposium on Future of Certain American-Made Chemicals, Buffalo Meeting, A. C. S.	470
DORE, W. H. Proximate Analysis of Wood.....	556	Outlines of Industrial Chemistry, by Thorp and Lewis. (Book Review).....	1182
DORSEY, F. M. Development Division, C. W. S., U. S. A.	281	HARRINGTON, J. W. Laboratory and Newspaper Shop. A. C. S. News Service. Note.....	164
DOWELL, C. T. AND W. G. FRIEDEMANN. Presence of Acetyl methyl-carbinol in Saccharin Sorghum Silage.....	129	Philadelphia Meeting, A. C. S. to Hail Dawn of New Era.....	784
AND P. MENAUL. Modification of the Phenylhydrazine Method of Determining Pentosans.....	1024	HARVEY, M. T. AND C. E. DAVIS. Determination of the Freezing-Point Curves and Densities of Denatured Alcohol-Water Mixtures.....	443
DUNNING, H. A. B. Contribution to Symposium on Institute for Drug Research.....	62	HATCHER, R. A. Contribution to Symposium on Institute for Drug Research.....	68
EAKINS, E. E. Decarbonation of Dolomite Limestone in the Rotary Kiln.....	340	HAWLBY, L. F. AND O. KRESS. Recovery of Waste Paraffined Paper by Extraction with Volatile Solvents.....	227
EARL, R. Chemistry and the Navy. Address, Philadelphia Meeting, A. C. S.	924	HEARSEY, E. AND C. M. JOYCE. Standard Alkali for Mixed Acid Control.....	594
EASTMAN, A. S. Oxidation in the Manufacture of Trinitrotoluene.....	1124	HEIDENHAIN, H. Colorimetric Determination of Organic Substances.....	341
EDWARDS, J. D. Preparation and Testing of Hydrogen of High Purity.....	961	HENDRICK, E. Edward G. Love—An Appreciation. Obituary.....	297
AND S. F. PICKERING. Method for Determining the Permeability of Balloon Fabrics.....	966	HERTY, C. H. Presidents' Address, Annual Meeting of the Chemists' Club.....	992
ELLERY, E. Training of the Chemist. Notes.....	375	HERTY, C. H. Gas Offense in the United States. A Record Achievement.....	5
EMERY, W. O. Studies in Synthetic Drug Analysis. VII—Estimation of Monobromated Camphor in Migraine Tablets.....	860	EDITORIALS:	
ENSLOW, L. H. AND A. WOLMAN. Chlorine Absorption and the Chlorination of Water.....	756	A Good Sign.....	1104
EFFO, J. R., W. V. LINER AND G. F. BEYER. Production of Glycerin from Sugar by Fermentation.....	209	Am I My Brother's Keeper?.....	183
EPSTEIN, S. W. AND A. H. SMITH. Determination of Free Carbon in Rubber Goods.....	842	A Mission, A Near Failure, and Ultimate Success.....	1102
EWING, C. O. AND E. C. MERRILL. Laboratory Apparatus for Rapid Evaporation.....	33	Are Your Needs Taken Care of?.....	182
EWING, T. Needs of the U. S. Patent Office.....	230	As Others See Us.....	278
FALK, K. G. Carbohydrates of Fresh and Dehydrated Vegetables. Introduction to the Physics and Chemistry of Colloids, by Hatschek. (Book Review).....	1133	Back to the Colleges and Universities.....	92
FIELDNER, A. C. Description of Pittsburgh Experiment Station Building, U. S. Bureau of Mines.....	906	Beware the Ide(a)s of March!.....	814
G. G. OBERFELD, M. C. TEAGUE AND J. N. LAWRENCE. Methods of Testing Gas Masks and Absorbents.....	1062	Census of Chemical Imports.....	507
G. ST. J. PERROTT AND M. YABLICK. New Absorbent for Ammonia Respirators.....	1036	Channel Buoys.....	507
M. C. TEAGUE AND J. H. YOE. Protection Afforded by Army Gas Masks against Various Industrial Gases.....	176	Chemical Foundation, Inc.	279
FAY, H. Chemical Analysis of Iron, by Blair. (Book Review).....	85	Chlorine Manufacture in Germany.....	90
FIELD, A. L. Deoxidation of Steel by Ferromanganese.....	242	Cornell's Good Fortune.....	719
FINGER, F. Contribution to Symposium on Institute for Drug Research.....	158	Dyestuffs Hearings Reopened.....	718
FERGUSON, J. B. AND P. D. V. MANNING. Equilibrium Studies upon the Bucher Process, 946; Correction.....	1094	Election Results.....	2
FIELDNER, A. C. Description of Pittsburgh Experiment Station Building, U. S. Bureau of Mines.....	622	Fighting Far Behind the Trenches.....	720
G. G. OBERFELD, M. C. TEAGUE AND J. N. LAWRENCE. Methods of Testing Gas Masks and Absorbents.....	1066	First Aid to the Injured.....	508
G. ST. J. PERROTT AND M. YABLICK. New Absorbent for Ammonia Respirators.....	519	From an "Adopted" One.....	182
M. C. TEAGUE AND J. H. YOE. Protection Afforded by Army Gas Masks against Various Industrial Gases.....	1013	Fruits of Service.....	3
FISCHER, R. P. The Chemical Laboratory as a Publicity Factor. Address, Philadelphia Meeting, A. C. S.	629	Future Arms.....	506
FLOWER, A. H. AND G. D. KRATZ. Vulcanization of Rubber at Constant Temperature and by a Series of Increasing Temperatures.....	929	Hot Air—But Why?.....	1104
FOOTE, H. W. Equilibrium in the System $\text{Na}_2\text{SO}_4-\text{CuSO}_4-\text{H}_2\text{SO}_4-\text{H}_2\text{O}$	30	Iceberg Looms Out of the Fog.....	1091
FRANCIS, J. M. Patents and Annual Renewal Fees. Patent Symposium, Philadelphia Meeting, A. C. S.	629	Individual Responsibility.....	280
FRANKEL, E. M., K. G. FALK AND R. H. MCKEE. Low Temperature-Vacuum Food Dehydration.....	937	Measure of Our Dependence.....	91
FRIEDEMANN, W. G. AND C. T. DOWELL. Presence of Acetyl methyl-carbinol in Saccharin Sorghum Silage.....	1036	Needed Reforms in the Patent Office.....	183
FULWEILER, W. H. AND J. H. TAUSSIG. Refractory Problems in the Gas Industry. Refractories Symposium, Philadelphia Meeting, A. C. S.	129	New Declaration of Independence.....	718
GABEL, L. F. U. S. P. Assay of Mercurial Ointment.....	1153	New Triple Alliance.....	506
GAILLARD, D. P. Analytical Method for Determining Efficiency of Ammonia Oxidation.....	960	Notes.....	4, 92, 184, 280, 508
GALLUP, F. L. Library Service in the Chemical Department and Chemical Department Laboratories of E. I. du Pont de Nemours & Co. Library Symposium, Buffalo Meeting, A. C. S.	745	Penny Wise and Pound Foolish.....	91
GARDNER, H. A. Changes in Oils upon Storage.....	588	Post-Doctorate Fellowships.....	278
GARVAN, F. P. Industrial Germany—Her Methods and Their Defeat. Address.....	759	Real Transformation.....	418
GRIBBS, H. D. Phthalic Anhydride. I—Introduction. (See Monroe, 1116, 1119).....	574	Real Victory Meeting.....	394
GILL, A. H. Commercial Oils, Vegetable and Animal, with Special Reference to Oriental Oils, by Laucks. (Book Review).....	1031	Rocks Ahead.....	419
GILLETT, H. W. Utilization of Electric Brass Furnaces.....	1002	Roll of Honor.....	418
GLENZ, E. A. AND G. D. BEAL. Composition of the Fruit of the Virginia Creeper, <i>Ampelopsis quinquefolia</i>	664	Safeguards of Chemical Independence.....	90
GORDON, B., G. H. CLOWES, G. ST. J. PERROTT AND E. L. GREENSFELDER. Effect of Moisture Content on the Permeability of Fabrics to Mustard Gas.....	959	Same Old Story.....	419
GOSS, B. C. Artillery Gas Attack.....	1016	Special Meeting of the Council.....	2
GRASSELLI, T. S. The Graselli Medal.....	829	The Battle Is On.....	1103
GRAVES, J. E. AND C. T. HIRST. Phosphorus, Potassium, and Nitrogen Content of the Waters of the Intermountain Region.....	162	The Soldier, the Sailor, and the Chemist.....	182
GRIMES, H. R. Some Axioms of Service in the Use and Abuse of Special Libraries. Library Symposium, Buffalo Meeting, A. C. S.	451	To Give or to Lend.....	279
		Victory Meeting, A. C. S.	278
		Ways and Means Committee Hearings (including Schweitzer Report).....	618
		Woman Chemist Has Come to Stay.....	183
		HERTY, C. H., JR. AND J. M. BELL. Studies on the Nitrotoluenes. III—Binary Systems of the Components: <i>p</i> -Nitrotoluene, 1,2,4-Dinitrotoluene, and 1,2,4,6-Tetrinitrotoluene.....	1124
		Studies on the Nitrotoluenes. IV—The Three Component System: <i>p</i> -Nitrotoluene, 1,2,4-Dinitrotoluene, and 1,2,4,6-Tetrinitrotoluene.....	1128
		HERSEY, B. C. Our Opportunity. Address.....	341
		SHALL WE HAVE ANNUAL PATENT RENEWAL FEES?.....	697
		HIBBARD, P. L. Alkalimetric Determination of Small Amounts of Magnesium.....	733
		Improved Method for Determination of Carbon by Wet Combustion, Using Barium Hydroxide as Absorbent.....	941
		HILDEBRAND, J. H. Organization and Work of Hanlon Field.....	291
		HILL, E. A. Annual Renewal Fees for U. S. Patents. Patent Symposium, Philadelphia Meeting, A. C. S.	935
		HIRSCHFELDER, A. D. Contribution to Symposium on Institute for Drug Research.....	160
		HIRST, C. T. AND J. E. GREAVES. Phosphorus, Potassium, and Nitrogen Content of the Waters of the Intermountain Region.....	451
		HITCH, E. F. AND I. E. KNAPP. Some Problems in the Identification of Dyes.....	1076
		HOLMES, H. N., F. F. JEWETT, G. LEAVELL AND D. BAILEY. Anti-Dimming Preparations for Gas Masks.....	1111
		Movement to Develop Research in Colloid Chemistry.....	794
		HOPKINS, O. P. Chemical Markets of the West Indies.....	19
		Efficiency and Productivity of Wage and Salary Earners in the Chemical Industries. An Attempt to Obtain an Answer.....	727
		HORN, D. W. Fumigation with Formaldehyde—A Substitute for the Permanganate-Formalin Method.....	126
		HORNE, W. D. Nomon: Sugar Technologists' Edition, by Blake. (Book Review).....	86
		HOSMER, H. R. Some Axioms of Service in the Use and Abuse of Special Libraries. Library Symposium, Buffalo Meeting, A. C. S.	582

HOUGH, G. J. Improved Automatic Burette.....	229	E. Q. ADAMS AND J. K. STEWART. Synthesis of Photosensitizing Dyes—Pinaverdol and Pinacyanol.....	460	
Some Notes on Paint Analysis.....	767	LYNN, C. J. Contribution to Symposium on Institute for Drug Research.....	59	
HOWE, H. E. Division of Industrial Chemists and Chemical Engineers, A. C. S. Announcements, 796, 797; Minutes of Sessions, Philadelphia Meeting.....	988			
HOWE, R. M. Work of the Technical Division of the Refractories Manufacturers' Association. Refractories Symposium, Philadelphia Meeting, A. C. S.....	1145	MACARDLE, D. W. Simple Weighing Burette.....	670	
HUBBARD, P. Asphalt and Allied Substance, by Abraham. (Book Review).....	614	MACK, H. F. Chemical Literature. Address.....	881	
HUFF, W. J. Some Applications of Physical Chemistry in the Coal-Tar Industry. (<i>See This Journal</i> , 10 (1918), 1016) Correction.....	167	MAHER, S. W. Convenient Stoichiometrical Calculation.....	574	
HUMISTON, B., W. S. CALCOTT AND E. C. LATHROP. Explosibility and Inflammability of Dyes.....	1075	MAHIN, E. G. Inclusions and Ferrite Crystallization in Steel.....	739	
HUNT, R. Contribution to Symposium on Institute for Drug Research.....	64	MAHOOD, S. A. AND D. E. CABLE. Reaction Products of Alkali-Sawdust Fusion: Acetic, Formic, and Oxalic Acids and Methyl Alcohol.....	651	
HUNTER, A. C. AND C. THOM. Aerobic Spore-Forming Bacillus in Canned Salmon.....	655	MAIER, C. G. Flotation Process, by Megraw. (Book Review).....	1000	
ILLINGWORTH, C. B., G. L. KELLEY AND F. B. MYERS. Determination of Uranium in Alloy Steels and Ferro-Uranium.....	316	MALCOLMSON, J. D. Webb Paper Tester—A New Instrument for Testing Corrugated Fiber Boards.....	133	
ITTNER, M. H. Fatal Ether Fire.....	490	MANNING, P. D. V. AND J. B. FERGUSON. Equilibrium Studies upon the Bucher Process, 946; Correction.....	1094	
JACKSON, D. E. Contribution to Symposium on Institute for Drug Research.....	161	MARCO, J. Production Costs of Chilean Nitrate.....	780	
JAMIESON, G. S. Determination of Zinc and Copper in Gelatin.....	323	MARSHALL, E. K., JR. Contribution to Symposium on Institute for Drug Research.....	64	
Gravimetric and Volumetric Determination of Mercury Precipitated as Mercury Zinc Thiocyanate.....	296	MASE, R. P. AND G. G. OBERFELL. Automatic Compensating Flow Meter.....	294	
AND H. S. BAILEY. American Tomato Seed Oil.....	850	MASON, W. P. Boiler Chemistry and Feed Water Supplies, by Paul. (Book Review).....	906	
JAYNE, D. W. Treasures of Coal Tar, by Findlay. (Book Review).....	85	MATHEWS, S. M. Internal Publicity as an Aid to the Laboratory. Library Symposium, Buffalo Meeting, A. C. S.	486	
JEWETT, F. F., H. N. HOLMES, G. LEAVELL AND D. BAILEY. Anti-Dimming Preparations for Gas Masks.....	1111	MAXWELL, L. C. AND J. R. CAIN. Electrolytic Resistance Method for Determining Carbon in Steel.....	810	
JOHNSON, C. M. Determination of Phosphorus in Vanadium Steels, Ferrovaniadium, Nonvanadium Steels, and Pig Iron.....	113	MCBRIDE, R. S. Government Publications.....	852	
JOHNSON, T. B. Colour and Its Relation to Chemical Constitution, by Watson. (Book Review).....	86	Spirit of the Exposition. Chemical Exposition.....	1178	
JONES, G. W. AND V. C. ALLISON. Carbon Tetrachloride, Chloroform and Carbon Hexachloride from Natural Gas.....	639	McCLELLAND, E. H. Public Library in the Service of the Chemist. Library Symposium, Buffalo Meeting, A. C. S.	973	
AND M. H. MEIGHAN. Sodium Pyrogallate Solution as an Absorbent for Oxygen.....	311	McCONNELL, R. E. Production of Nitrogenous Compounds Synthetically in the United States and Germany.....	578	
JOYCE, C. M. AND E. HEARSEY. Standard Alkali for Mixed Acid Control.....	341	McDONNELL, J. B. Washington Letter. (<i>See Wooton</i> , 990, 1095, 1172)	837	
KATZ, S. H. AND V. C. ALLISON. Investigation of Stenches and Odors for Industrial Products.....	1049	McGUGAN, H. Contribution to Symposium on Institute for Drug Research.....	67	
KEITT, T. E. AND H. E. SHIVER. Further Study of the DeRode Method for Determining Potash.....	316	McHARGUE, J. S. Effect of Manganese on the Growth of Wheat. A Source of Manganese for Agricultural Purposes.....	332	
KELLEY, G. L., F. B. MYERS AND C. B. ILLINGWORTH. Determination of Uranium in Alloy Steels and Ferro-Uranium.....	552	New Form of Distilling Bulb.....	670	
J. A. WILEY, R. T. BOHN AND W. C. WRIGHT. Determination of Vanadium in Steels by Electrometric Titration. The Selective Oxidation of Vanadyl Salts by Nitric Acid in the Presence of Chromic Salts.....	61	MCKEE, R. H. Annual Reports of the Society of Chemical Industry on the Progress of Applied Chemistry. (Book Review).....	1181	
KILMER, F. B. Contribution to Symposium on Institute for Drug Research.....	950	Back to the Colleges and Universities. (<i>See Editorial</i> , 92; Letter, 378).....	255	
KISH, C. H., V. ARNY AND F. NEWMARK. Color Standards for Cottonseed Oil.....	632	K. G. FALK AND E. M. FRANKEL. Low Temperature-Vacuum Food Dehydration.....	1036	
KLOTZ, J. R. M. Coal-Tar Distillation and Working Up of Tar Products, by Warnes. (Book Review).....	1000	MCMILLAN, A. Foreign Industrial News.....	1157	
KNAPP, I. E. AND E. F. HITCH. Some Problems in the Identification of Dyes.....	1076	MCPEHRON, W. Gas and Flame in Modern Warfare, by Auld. (Book Review).....	613	
KOHMAN, E. F. Rapid and Accurate Method for Butter Analysis, Suitable for Factory Control Work.....	36	MEES, C. E. K. Report on the Production of Synthetic Organic Chemicals in the Research Laboratory of the Eastman Kodak Company for the Year 1918-1919.....	1141	
KOPELOFF, N. AND L. KOPELOFF. Deterioration of Manufactured Cane Sugar by Molds, 845; Correction.....	1094	AND H. T. CLARKE. New Yellow Dye and Light Filters Made from It.....	454	
KRATZ, G. D. AND A. H. FLOWER. Vulcanization of Rubber at Constant Temperature and by a Series of Increasing Temperatures.....	30	MEGRAN, H. A. Mill and Cyanide Handbook, by Allen. (Book Review).....	613	
KRESS, O. AND L. F. HAWLEY. Recovery of Waste Paraffined Paper by Extraction with Volatile Solvents.....	552	MEIGHAN, M. H. AND V. C. ALLISON. Determination of Methyl Chloride in Gas Mixtures.....	943	
LADD, R. M. Studies on the Official Method for Pyridine in Ammonium Nitrate.....	552	AND G. W. JONES. Sodium Pyrogallate Solution as an Absorbent for Oxygen.....	311	
LAMB, A. B., R. E. WILSON AND N. K. CHANEY. Gas Mask Absorbents.....	552	MENAU, P. AND C. T. DOWELL. Modification of the Phenylhydrazine Method of Determining Pentosans.....	1024	
LATHROP, E. C., B. HUMISTON AND W. S. CALCOTT. Explosibility and Inflammability of Dyes.....	552	MERRILL, C. G. Contribution to Symposium on Institute for Drug Research.....	61	
LAWRENCE, J. N., A. C. FIELDNER, G. G. OBERFELL AND M. C. TEAGUE. Methods of Testing Gas Masks and Absorbents.....	552	MERRILL, D. R. AND C. C. SCALIONE. Tannin Content of Redwood.....	643	
LEAVELL, G., D. BAILEY, H. N. HOLMES AND F. F. JEWETT. Anti-Dimming Preparations for Gas Masks.....	552	MERRILL, E. C. AND C. O. EWING. Laboratory Apparatus for Rapid Evaporation.....	230	
LEE, G. W. Library Service in the Industrial Laboratory. Library Symposium, Buffalo Meeting, A. C. S.	587	MERZ, A. R. AND W. H. ROSS. Nature of the Recombined Potash in Cement Mill Dust.....	39	
LEWARS, L. H. Explosion in the Dye Plant of the California Ink Company.....	701	MESERVE, S. B., G. G. OBERFELL AND S. D. SHINKLE. Testing Natural Gas for Gasoline Content.....	197	
LEWIS, H. F. Review of the American Patent Literature on Arsphenamine (Salvarsan) and Other Arsenicals.....	141	MIKESKA, L. A., J. K. STEWART AND L. E. WISE. Intermediates Used in the Preparation of Photosensitizing Dyes. I—Quinoline Bases.....	456	
LEWIS, P. A. Contribution to Symposium on Institute for Drug Research.....	1111	MILLARD, E. B. Lecture Demonstrations in Physical Chemistry, by van Klooster. (Book Review).....	1181	
LILLY, J. K. Contribution to Symposium on Institute for Drug Research.....	158	MILLER, R. J. Apparatus for Rapid Gastric Analysis together with a Method for the Preservation of Starch Solution.....	963	
LINDER, W. V., J. R. EOFF AND G. F. BEYER. Production of Glycerin from Sugar by Fermentation.....	158	MILNE, W. D. Chemical Fire Hazards. Fire Hazards in Dyestuff Storage and Mixing.....	701	
LITTLE, A. D. Argument against Annual Patent Renewal Fees in the U. S. Patent Symposium, Philadelphia Meeting, A. C. S.	938	MINER, H. S. Definition of the Term "F. O. B. New York." Note. Shall We Have Annual Patent Renewal Fees?.....	489	
Report of Omnibus Committee, A. C. S.	63	MOHLMAN, F. W. Deoxygenating Effect of the Effluent from the Miles Acid Process of Sewage Treatment. Sewage Disposal, by Kinnicutt, et al. (Book Review).....	1094	
LLOYD, J. U. Contribution to Symposium on Institute for Drug Research.....	1169	MONROE, K. P. Phthalic Anhydride. II—The Melting Point of Pure Phthalic Anhydride. The System: Phthalic Anhydride—Phthalic Acid. (<i>See Gibbs</i> , 1031).....	697	
Patents—American and Foreign. Patent Symposium, Philadelphia Meeting, A. C. S.	456	937	PHthalic Anhydride. III—The System: Naphthalene—Phthalic Anhydride.....	1116
LOBB, J. Contribution to Symposium on Institute for Drug Research.....	456	MOODY, H. R. Annual Report of the Bureau of Employment of the Chemists' Club for the Year Ending April 30, 1919.....	1119	
LOW, W. H. Some Remarks on Standard Methods of Soap Analysis. (<i>See Campbell</i> , 785).....	158	MOORE, H. C. Division of Fertilizer Chemistry, A. C. S. Minutes of Business Session, Philadelphia Meeting.....	395	
LUBS, H. A. Method for the Purification of Certain Azo Dyes.....	938	Results of Further Co-operative Work on the Determination of Sulfur in Pyrite.....	988	
Paracymene. II—The Utilization of Cymene for the Preparation of Photographic Developers.....	63	MORGAN, R. R., J. H. NORTHRUP AND L. H. ASH. Fermentation Process for the Production of Acetone and Ethyl Alcohol.....	45	
AND R. C. YOUNG. Paracymene. III—Preparation of 2 Cl, 5,6-Dinitrocymene.....	1130	MORGAN, W. V. Colorimetric Determination of Lead Dioxide in Litharge.....	723	
LUKES, C. S. Alkali, etc., British Works Regulation Act, 1906. Technical Index to the Alkali Reports with Appendix, 1894 to 1917. (Book Review).....	810	MORK, H. S. The Future of Cellulose Acetate. Symposium on Future of Certain American-Made Chemicals, Buffalo Meeting, A. C. S.	1055	
LUND, C. H. AND L. E. WISE. Intermediates Used in the Preparation of Photosensitizing Dyes. II—Quaternary Halides.....	458	MOUNT, G. Association of British Chemical Manufacturers. Note. MULLINIX, R. D., H. I. SCHLESINGER AND S. POPOFF. Studies on Manganates and Permanganates—I.....	474	
		MURRAY, B. L. Contribution to Symposium on Institute for Drug Research.....	317	
			157	

MURRILL, P. I. TNT and Other Nitrotoluenes, by Smith. (Book Review).....	390	QUINN, R. J. \$100,000 Fire.....	701
MYERS, F. B., G. L. KELLEY AND C. B. ILLINGWORTH. Determination of Uranium in Alloy Steels and Ferro-Uranium.....	316	REDMAN, L. V. Should We Have Annual Renewal Fees? Patent Symposium, Philadelphia Meeting, A. C. S.....	933
NEILL, W. L. Work of the Library of the Solvay Process Company. Library Symposium, Buffalo Meeting, A. C. S.....	588	REES, C. L. Back to the Colleges and Universities. (See Editorial, 92; Letter, 378).....	255
NEISH, A. C. AND O. BYRON. Motion Pictures in the Training of the Chemist.....	699	Introductory Remarks, Dye Section, A. C. S., Philadelphia Meeting.....	1071
NESBITT, C. E. AND M. L. BELL. Interesting Facts Concerning Refractories in the Iron and Steel Industries. Refractories Symposium, Philadelphia Meeting, A. C. S.....	1149	REISSMAN, G. Kodak Park Library. Library Symposium, Buffalo Meeting, A. C. S.....	583
NEWMARK, F., H. V. ARNY AND C. KISH. Color Standards for Cottonseed Oil.....	950	RICHARDS, B. Fire Protection in Chemical Plants.....	490
NICHOLS, W. H. Back to the Colleges and Universities. (See Editorial, 92; Letter, 378).....	255	RICHARDS, J. W. Industrial Electrometallurgy, by Rideal. (Book Review).....	1182
Future of the American Dye Industry. Research and Application. President's Address, Philadelphia Meeting, A. C. S.....	53	Report, 35th Meeting American Electrochemical Society.....	483
The Chemist and Reconstruction. Address, Buffalo Meeting, A. C. S.....	917	RICHARDSON, W. D. A. C. S. Committee Reports on the Analysis of Commercial Fats and Oils.....	1161
NORRIS, J. F. Manufacture of War Gases in Germany.....	399	ROCHOW, W. F. Selection of Refractories for Industrial Furnaces. Refractories Symposium, Philadelphia Meeting, A. C. S.....	1146
NORTHRUP, Z. Anaerobic Culture Volumeter. (See THIS JOURNAL, 10 (1918), 624) Correction.....	817	ROORBACK, G. B. More Detailed Statistics of Chemical Commodities.....	257
NOYES, H. A. Accurate Determination of Soil Nitrates by Phenol Disulfonic Acid Method.....	723	ROSE, R. E. Foreign Dye Patents, Their Relation to the Development of the American Dye Industry.....	379
Soil Acidity—The Resultant of Chemical Phenomena.....	167	ROSS, B. B. Preparation of Substances Important in Agriculture: A Laboratory Manual of Synthetic Agricultural Chemistry, by Peters. (Book Review).....	1073
NOYES, W. A. Positive and Negative Valence. Abstract of Willard Gibbs Medal Address.....	213	ROSS, W. H. AND A. R. MERZ. Nature of the Recombined Potash in Cement Mill Dust.....	612
Report of the Committee on Co-operation between the Universities and the Industries.....	1040	RUDNICK, P. Corrosion Tests on Commercial Calcium Chloride Used in Automobile "Anti-Freeze Solutions".....	39
OBERFELL, G. G., A. C. FIELDNER, M. C. TEAGUE AND J. N. LAWRENCE. Methods of Testing Gas Masks and Absorbents.....	598	RUSSELL, B. Should Granted Patents be Subjected to Annual Fees? (See Patent Symposium, 930).....	668
AND R. P. MASE. Automatic Compensating Flow Meter.....	519	RUSSELL, G. A. Effect of Fertilizers on the Composition of Hops.....	1092
S. D. SHINKLE AND S. B. MESERVE. Testing Natural Gas for Gasoline Content.....	294	SCAMMIS, J. L. Improvement in Casein Making.....	764
OHLIGER, W. Contribution to Symposium on Institute for Drug Research.....	197	SAWYER, J. P. AND J. M. BELL. Studies on the Nitrotoluenes. I—Binary Systems of a Nitrotoluene and Systemmetrical Trinitromethylenes.....	1025
O'LEARY, J. W. Industrial Patriotism. Address, Chemical Exposition.....	157	SCALES, F. M. Cuprous Chloride-Iodine Method for Reducing Sugars Simplified.....	747
OLSEN, J. C. Reports of American Institute of Chemical Engineers Meetings: 11th Annual Meeting, Chicago, January 15 to 18, 1919. 11th Semi-Annual Meeting, Boston, June 18 to 21, 1919.....	976	SCALIONE, C. C. AND D. R. MERRILL. Tannin Content of Redwood. SCHIEFFELIN, W. J. Contribution to Symposium on Institute for Drug Research.....	643
OSBORN, S. J. The Mohr and the Metric Milliliter. Note.....	599	SCHLESINGER, H. I., R. D. MULLINIX AND S. POPOFF. Studies on Manganates and Permanganates—I. SCHOLL, C. E. Rapid Method for Determining Uranium in Carnotite. SCHRAMM, E. Determination of Cadmium by the Hydrogen Sulfide Method.....	60
PALMER, A. M. Report of the Alien Property Custodian on the Chemical Industry.....	352	SCOTT, W. Application of Rotating Reductors in the Determination of Iron.....	317
PALMER, C. S. Study of Engineering Education, by Mann. (Book Review).....	175	SCOVILLE, W. L. Scammony and Its Substitutes.....	842
Wool Grease. Ahren's "Sammlung Chemischer und Chemisch-Technischer Vortrage".....	798	SEIDELL, A. Building for the American Chemical Society.....	110
PARR, S. W. Fusion Bomb for Sulfur Determination in Coal. Needle Valve with Delicate Adjustment for High Pressure Gases.....	230	SHEPPARD, E. J. Effect of Exposure on Raw Linseed Oil.....	1135
PATTERSON, C. L. Commercial Oxidation of Ammonia to Nitric Acid. Edward G. Love—His Relation to the American Chemical Society. Obituary.....	768	SHINKLE, S. D., G. G. OBERFELL AND S. B. MESERVE. Testing Natural Gas for Gasoline Content.....	335
Report of A. C. S. Committee on War Service for Chemists. American Chemical Society: Advisory Committee Meetings. 1918 Directory. 13,000 Members. 14,000 Members for 1920.....	541	SHIVER, H. E. AND T. E. KEITT. Further Study of the DeRoode Method for Determining Potash.....	693
PARSONS, J. T. AND B. S. DAVISON. Determination of Total Nitrogen Including Nitric Nitrogen.....	992	SHOFF, P. S. AND J. W. TURRENTINE. Potash from Kelp: Experimental Plant of the United States Department of Agriculture. Preliminary Paper.....	637
PATTERSON, A. M. A Bureau of Chemical Intelligence. (See Patent Committee Report, 250). Decennial Index as An Aid to Organic Research. Note. PEARCE, W. T. Methods of Varnish Analysis. Study of the Fatty Acids Obtained from Varnish Oils and from Varnishes.....	413	SHRADER, J. H. Possibility of Commercial Utilization of Tomato Seed and Grape Seed.....	197
PERROTT, G. ST. J., G. H. CLOWES, B. GORDON AND E. L. GREENSFELDER. Effect of Moisture Content on the Permeability of Fabrics to Mustard Gas. A. C. FIELDNER AND M. YABLICK. New Absorbent for Ammonia Respirators. AND A. E. PLUMB. Effect of Exposure to Weather on Rubber Gas Mask Fabrics.....	988	SHREVE, R. N. American Chemical Society Dye Section. Manufacture of Intermediate Products for Dyes, by Cain. (Book Review).....	1049
PERSHING, J. J. Chemical Warfare Service Overseas. Note. PETERKIN, A. G. Phenol. Symposium on Future of Certain American-Made Chemicals, Buffalo Meeting, A. C. S.....	73	SIBERT, W. L. Chemical Warfare. Dedicatory Address of the Chemistry Hall, University of Nebraska. SILL, T. W. Dyestuff Plants and Their War Activities. (See Editorial, 1103).....	864
PHelps, E. B. Stream Pollution and Its Relation to the Chemical Industries. Address, Philadelphia Meeting, A. C. S.....	371	SIMPSON, R. M. Platinum Theft. SINGMASTER, J. A. Reconstruction in the Zinc Industry. SKINNER, W. W. AND W. F. BAUGHMAN. Determination of Bromide in Mineral Waters and Brines. Determination of Iodide in Mineral Waters and Brines.....	509
PICKEL, J. M. Fat Extraction Apparatus. PICKERING, S. F. AND J. D. EDWARDS. Method for Determining the Permeability of Balloon Fabrics. PLUMB, A. E. AND G. ST. J. PERROTT. Effect of Exposure to Weather on Rubber Gas Mask Fabrics.....	899	SLOSSON, E. F. Don't for Would-Be Writers of Scientific Articles for the Public Press.....	487
POPE, F. Condition of Chemical Plants in Germany. (See Editorial, 1103). POPOFF, S. H. I. SCHLESINGER AND R. D. MULLINIX. Studies on Manganates and Permanganates—I. PORTER, H. C. Manufacture of Sulfate of Ammonia and Crude Ammonia, by Calvert. (Book Review).....	200	SMITH, A. H. AND S. W. EPSTEIN. Determination of Free Carbon in Rubber Goods.....	146
POTSDAMER, L. S. Data of Interest in the Barium Industry. Notes on Sodium Prussiate. POWER, F. B. An Institute for Cooperative Research as an Aid to the American Drug Industry. (See Symposium, 59, 157). Distribution and Characters of Some of the Odorous Principles of Plants.....	1016	SMITH, B. H. Tincture of Vanilla of the National Formulary. SMITH, E. F. The American Spirit in Chemistry. Address, Buffalo Meeting, A. C. S.....	954
POZEN, M. A. AND L. V. DIESTER. Disinfection with Formaldehyde. The Practical Efficiency of Some Substitutes for the Permanaganate-Formalin Method.....	1013	SMITH, J. F. Librarians for Research Libraries. (See Greenman, 701) Note. Functions of a Research Library in the Dyestuff Industry. Library Symposium, Buffalo Meeting, A. C. S.....	563
PRICE, W. B. Relation of the Chemist to the Brass Industry. PRINDLE, E. J. An Answer to the Proposal of Annual Patent Renewal Fees. Patent Symposium, Philadelphia Meeting, A. C. S.....	438	SMITH, R. C. Manufacture of Arsenic Trichloride. SMOLL, A. E. Recovery of Platinum and Alcohol from the Potash Determination. SOLLMAN, T. Contribution to Symposium on Institute for Drug Research.....	599
PURDY, R. C. Superior Refractories. Refractories Symposium, Philadelphia Meeting, A. C. S.....	344	SPEARS, H. D. Convenient and Efficient Digestion Apparatus for the Determination of Crude Fiber. SPEED, B. An Appreciation of Dr. Cottrell. Perkin Medal Award. SPENCE, D. Crude Rubber and Compounding Ingredients, by H. C. Pearson. (Book Review).....	584
STANLEY, F. Polariscopes and International Saccharimetric Scale. Note. STEINKOENIG, L. A. Relation of Fluorine in Soils, Plants, and Animals. STENIUS, J. A. Solvent Action of Dilute Citric and Nitric Acids on Rock Phosphate. STEWART, G. R. AND J. S. BURD. Course of Reaction in Explosions of Dilute CS ₂ -Air Mixtures. STEWART, J. K., L. E. WISE, C. H. LUND AND E. Q. ADAMS. Synthesis of Photosensitizing Dyes—Pinaverdol and Pinacyanol. L. E. WISE AND L. A. MIKESKA. Intermediates Used in the Preparation of Photosensitizing Dyes. I—Quinoline Bases. STIGGLITZ, J. Back to the Colleges and Universities. (See Editorial, 92; Letters, 255).....	317	STEVENSON, A. C. S. Report by the Committee on Publication of Compendia of Chemical Literature. A. C. S.....	109
STINCHFIELD, R. L. Annual Patent Fees in the United States. Patent Symposium, Philadelphia Meeting, A. C. S.....	448	STINCHFIELD, R. L. Annual Patent Fees in the United States. Patent Symposium, Philadelphia Meeting, A. C. S.....	466
1151	770	930	934

STRACHAN, E. K. Place of Physical Chemistry in Dyestuff Research.....	1080	WEBER, F. C. AND J. B. WILSON. Formation of Ammonia and Amines in Canned Sardines during Storage.....	121
STREETER, E. D. Continuous Vacuum Still for Mustard Gas.....	292	WEBSTER, J. C. First Gas Regiment.....	621
SUTHERLAND, L. T. The Soldier, the Sailor, and the Chemist. (See Editorial, 182).....	485	WEDGER, W. L. Reports from the Chemical Laboratory of the Massachusetts District Police.....	893
TAFEL, L. A. Library Service of the New Jersey Zinc Company. Library Symposium, Buffalo Meeting, A. C. S.	586	WEIDLEIN, E. R. Chemicals Division, War Industries Board.....	1006
TAUSSIG, F. W. Problems of the Dyestuff Industry.....	55	WESSON, D. Catalytic Hydrogenation and Reduction, by Maxted. (Book Review).....	1002
TAUSSIG, J. H. AND W. H. FULWEILER. Refractory Problems of the Gas Industry. Refractories Symposium, Philadelphia Meeting, A. C. S.	1153	Production and Treatment of Vegetable Oils, by Chalmers. (Book Review).....	612
TAYLOR, F. O. Pharmaceutical Chemist and the Scope of His Work. Hygroscopic Properties of Black Powder.....	239	Some Chemical Needs of the Vegetable Oil Industry.....	970
TAYLOR, G. B. Heat of Reaction of Ammonia Oxidation.....	1121	WHEELER, H. J. Problems and Methods in Agricultural Research, 1056; Correction.....	1172
AND J. H. CAPPS. Effect of Phosphine and Hydrogen Sulfide on the Oxidation of Ammonia to Nitric Acid.....	1032	WHITE, A. H. Present Status of Nitrogen Fixation.....	231
TEAGUE, M. C., A. C. FIELDNER, G. G. OBERFELL AND J. N. LAWRENCE. Methods of Testing Gas Masks and Absorbents.....	27	WHITE, H. L. Modification of the Composition of Vegetable Oils, with Special Reference to Increasing Unsaturation.....	648
A. C. FIELDNER AND J. H. YOE. Protection Afforded by Army Gas Masks against Various Industrial Gases.....	519	WHITMORE, F. C. Bibliography of the Literature of Organic Mercurials.....	1083
THOM, C. AND A. C. HUNTER. Aerobic Spore-Forming Bacillus in Canned Salmon.....	622	WHITNEY, W. R. Patent Renewal Fees. Patent Symposium, Philadelphia Meeting, A. C. S.	936
THOMPSON, G. E. Temperature-Time Relations in Canned Foods during Sterilization.....	655	AND L. H. BAEKELAND. Naval Consulting Board of the United States.....	248
THOMPSON, G. W. Metallurgy of Lead, by Hofman. (Book Review).....	657	WICHERS, E. AND L. J. GUREVICH. Comparative Tests of Palau and Rhotanum Ware as Substitutes for Platinum Laboratory Utensils.....	570
THOMSON, E. Arguments against Annual Patent Renewal Fees. Patent Symposium, Philadelphia Meeting, A. C. S.	1182	WILEY, J. A., G. L. KELLEY, R. T. BOHN AND W. C. WRIGHT. Determination of Vanadium in Steels by Electrometric Titration. The Selective Oxidation of Vanadyl Salts by Nitric Acid in the Presence of Chromic Salts.....	632
TINGLE, A. Ammoniacal Silver Oxide Solutions. Note.....	932	WILLIAMS, R. S. Chemical Calculations, by Ashley. (Book Review).....	1181
AND F. W. BABINGTON. Determination of Small Amounts of Benzene in Ethyl Alcohol.....	974	WILSON, J. B. AND F. C. WEBER. Formation of Ammonia and Amines in Canned Sardines during Storage.....	121
TSUJIMOTO, M. Highly Unsaturated Hydrocarbon in Shark Liver Oil. (See THIS JOURNAL, 8 (1916), 889) Correction.....	62	WILSON, R. E., N. K. CHANEY AND A. B. LAMB. Gas Mask Absorbents.....	420
TURRENTINE, J. W. AND P. S. SHOAFF. Potash from Kelp: The Experimental Plant of the United States Department of Agriculture. Preliminary Paper.....	379	WISE, L. E., E. Q. ADAMS, J. K. STEWART AND C. H. LUND. Synthesis of Photosensitizing Dyes—Pinaverdol and Pinacyanol. AND C. H. LUND. Intermediates Used in the Preparation of Photosensitizing Dyes. II—Quaternary Halides.....	460
UHLINGER, R. H. AND R. V. COOK. Manufacture of Methyldichlorarsine, 105; Correction.....	555	J. K. STEWART AND L. A. MIKESKA. Intermediates Used in the Preparation of Photosensitizing Dyes. I—Quinoline Bases.....	458
VAIL, J. G. Some Properties of Commercial Silicate of Soda.....	1029	WITHROW, J. R. Prompt Action by Chemists Needed on Prohibition Legislation.....	456
VAN ALSTINE, E. Absorption Pipette.....	51	WITZERMANN, E. J. Explosions with Ammoniacal Silver Oxide Solutions.....	253
VAN ARSDALE, G. D. Metallurgists' and Chemists' Handbook, by Liddell. (Book Review).....	86	WOLMAN, A. AND L. H. ENSLOW. Chlorine Absorption and the Chlorination of Water.....	893
VANDERALDE, A. J. J. A Letter from Belgium. Note.....	167	WOODMAN, A. G. Beverages and Their Adulterations, by Wiley. (Book Review).....	209
VANDERKLEED, C. E. Contribution to Symposium on Institute for Drug Research.....	159	WOOTON, P. Washington Letter, 74, 168, 266, 380, 491, 600, 702, 799, WRIGHT, W. C., G. L. KELLEY, J. A. WILEY AND R. T. BOHN. Determination of Vanadium in Steels by Electrometric Titration. The Selective Oxidation of Vanadyl Salts by Nitric Acid in the Presence of Chromic Salts.....	1001
VASSAR, H. S. Simplified Signal Device for Thermometric Readings—Coal Calorimeters.....	467	YABLICK, M., G. ST. J. PERROTT AND A. C. FIELDNER. New Absorbent for Ammonia Respirators.....	895
WADDELL, J. Modifications of Pearce's Method for Arsenic.....	939	YODER, L. Adaptation of the Mohr Volumetric Method of General Determinations of Chlorine.....	755
WAGNER, T. B. Back to the Colleges and Universities. (See Editorial, 92; Letters, 378).....	255	YOS, J. H., A. C. FIELDNER AND M. C. TEAGUE. Protection Afforded by Army Gas Masks against Various Industrial Gases.....	622
RENEWAL FEES ON PATENTS. Patent Symposium, Philadelphia Meeting, A. C. S.	938	YOUNG, R. C. AND H. A. LUSS. Para Cymene. III—Preparation of $2\text{Cl}_1, 5,6\text{-Dinitrocymene}$	1130
WALKER, S. S. Use of Nickel Crucibles for the J. Lawrence Smith Fusion in Determining Soil Potassium.....	1177	ZANETTI, J. E. Interallied Organizations for Chemical Warfare, 721; Correction.....	892
WATKINS, W. H. Observations on the Estimation of the Strength of Dyestuffs.....	1139	ZERBAN, F. W. Color Changes of Sugar Cane Juice and the Nature of Cane Tannin.....	1034
WAYNICK, D. D. Simplified Wet Combustion Method for the Determination of Carbon in Soils.....	1079	ZUCKER, R. D. Germany's Industrial Position.....	777
WEAVER, E. R. Bibliography of Helium Literature.....	634		
	682		