

diphenyl-ketoxime, nitromethane, bismuth chloride, cadmium iodide, calcium chloride, chromic chloride, lithium chloride, lithium nitrate, lead nitrate, mercuric chloride, methyl-mercuric chloride, mercuric iodide, and silver nitrate.—A. S.

*Reversible reactions among organic acid derivatives.* J. Biehringer and W. Borsum. Ber., 1906, **39**, 3348—3356.

THE qualitative conditions are discussed under which a number of simple interactions of derivatives of organic acids take place in either direction. Thus, in sealed tubes at 150° C., benzoic acid and acetyl chloride form benzoyl chloride and acetic acid, but at 120° C., under ordinary pressure, change proceeds in the contrary direction. Whereas the interaction of benzoic acid and acetamide takes place in one direction only, ethyl acetate and benzamide yield acetamide and ethyl benzoate when heated for six hours under pressure at 260° C., whilst the reverse change takes place on heating under pressure from 270°—290° C. Phenyl benzoate and ammonia interact in sealed tubes at 150° C., whilst benzamide and phenol yield phenyl benzoate on heating. Other cases considered, are the interaction of oxalic acid and acetamide, of benzoic acid and acetanilide, and of acetanilide and benzoyl chloride.—E. F. A.

## Trade Report.

### PATENT LAW REFORM.

*Cham. of Com. J., Nov., 1906.*

A DEPUTATION from the Associated Chambers of Commerce waited upon the President of the Board of Trade on Oct. 18, in continuation of the larger deputation on April 9, on the subject of Patent Law Amendment. Although the proceedings were private, it is understood that the Government intend to introduce a Bill into Parliament at an early opportunity, dealing with the grievances of the manufacturing and commercial community in regard to the present working of the Patents Act.

### AUSTRALIAN COMMERCE ACT REGULATIONS.

*Cham. of Com. J., Nov., 1906.*

WITH reference to the new Australian Commerce Act, the following is the text of Part II. of the (Amended) Provisional Regulations relative to imported goods, and which become operative on Jan. 1, 1907:—

5. (1) The importation of the goods enumerated in this regulation is prohibited unless there is applied to the goods a trade description in accordance with this Part.

(2) The goods to which this regulation applies are as follows:—

(a) Articles used for food or drink by man, or used in the manufacture or preparation of articles used for food or drink by man;

(b) Medicines or medicinal preparations for internal or external use;

(c) Manures, including all articles for use as fertilisers of the soil, except farmyard or stable manures, and crude materials for the manufacture of manures;

(d) Apparel (including boots and shoes), and the materials from which such apparel is manufactured;

6. (1) The trade description to be applied in accordance with this Part shall comply with the following provisions:—

(a) It shall be in form of a label or brand affixed in a prominent position to the goods, or to the coverings containing the goods; and

(b) The label or brand shall set out in legible characters a true description of the goods, and the name of the country or place in which the goods were made or produced; and

(c) In cases where any weight or quantity is set out, the label or brand shall specify whether the weight or quantity so set out is gross or net.

(2) In the case of the following goods, the trade description shall, in addition, comply with the following provisions:—

(a) In the case of medicines prepared ready for use, and containing 10 per cent. or more of ethyl alcohol, if the average dose recommended exceeds one teaspoonful (60 minims), the trade description shall set out the proportion or quantity of alcohol in the medicine.

(b) In the case of medicines prepared ready for use, and containing any of the following drugs (or the salts or derivatives thereof), viz.:—Opium, morphine, cocaine, heroin, stramonium, nux vomica, cannabis indica, bromides, sulphonal, trional, veronal, paraldehyde, or any synthetic hypnotic substance, phenazonum, phenacetinum, or acetanilidum, or any allied synthetic substance, chloral hydrate, belladonna, cotton-root, ergot, or any abortifacient, the trade description shall set out the names of all such drugs so contained.

(c) In the case of manures, the trade description shall set forth the principal active constituent thereof.

(g) In the case of leather containing any loading of any mineral or other weighting substance, the trade description shall state the name of the loading or other weighting substance contained in the leather, and the percentage thereof.

## New Books.

**THE CYANIDE PROCESS.** An Introduction to the Cyanide Process, including the Determination of the Applicability of the Process to an Ore. By Alfred S. Miller. Second Edition, revised and enlarged. John Wiley and Sons, New York. Chapman and Hall, Ltd., London, 1906. Price 4s. 6d. net. ‡

SMALL 8vo volume, containing 89 pages of subject matter, 29 illustrations, table of atomic weights, and the alphabetical index. The text is subdivided as follows:— I. General description of the cyanide process. II. Interfering substances. III. Chemistry of the cyanide process. IV. Determining the applicability of the cyanide process to an ore. V. Notes as to strengths of solutions, and general processes. VI. Special descriptions of some cyanide processes. VII. Volumetric methods.

**THE MINERAL INDUSTRY DURING 1905: ITS STATISTICS, TECHNOLOGY, AND TRADE.** Founded by RICHARD P. ROTHWELL. Edited by W. R. INGALLS. Vol. XIV. Engineering and Mining Journal, New York and London, 1906. Price, £1 0s. 10d., or 5 dollars.

LARGE 8vo volume, containing 728 pages of subject matter, and the alphabetical index. There is a staff of 51 contributors, the names of whom, with their subjects, are given on the first page. The subjects treated of, after an introduction setting forth the methods pursued in the volume, are the following:—I. Aluminium. II. Antimony. III. Arsenic. IV. Asbestos. V. Asphaltum. VI. Barytes. VII. Bauxite. VIII. Bismuth. IX. Borax. X. Bromine. XI. Carborundum. XII. Cement. XIII. Chromium and Chrome Ore. XIV. Coal and Coke. XV. Copper. XVI. Copperas. XVII. Corundum and Emery. XVIII. Fluorspar. XIX. Fuller's Earth. XX. Garnet. XXI. Gems and Precious Stones. XXII. Gold and Silver. XXIII. Graphite. XXIV. Gypsum. XXV. Iron and Steel. XXVI. Lead. XXVII. Limestone. XXVIII. Magnesite. XXIX. Manganese. XXX. Mica. XXXI. Molybdenum. XXXII. Monazite. XXXIII. Nickel and Cobalt. XXXIV. Petroleum. XXXV. Phosphate Rock. XXXVI. Platinum. XXXVII. Potassium Salts. XXXVIII. Mercury. XXXIX. Salt. XL. Sodium, and Soda Salts. XLI. Sulphur and Pyrites. XLII. Tale and Soapstone. XLIII. Tin. XLIV. Tungsten. XLV. Zinc. XLVI. Progress in Ore-dressing and Coal-washing in 1905. XLVII. Improvements in Sampling and Assaying. XLVIII. Statistics of Production and Commerce.

**MINES AND QUARRIES: GENERAL REPORT AND STATISTICS FOR 1905.** Part II.—Labour. [Cd. 3179.] Wyman and Sons, Fetter Lane, London, E.C. Price, 10d.

This publication contains a general report and statistics relating to persons employed, and accidents at mines and

quarries in the United Kingdom, and to the enforcement of the Mines and Quarries Acts. According to these statistics the total number of persons employed at mines and at the quarries under the Quarries Act in the United Kingdom and the Isle of Man during the year 1905 was 982,343, of whom 887,524 were employed in or about mines, and 94,819 in or about quarries. Compared with the preceding year, there is an increase of 10,467 persons employed at mines. In 1905, 1103 separate fatal accidents occurred in or about mines and quarries, causing the loss of 1304 lives, showing a decrease of 55 in the number of fatal accidents and an increase of 102 in the number of lives lost as compared with 1904.

**CHURCH'S LABORATORY GUIDE.** A Manual of Practical Chemistry for Colleges and Schools, specially arranged for Agricultural Students. Revised and partly rewritten by EDWARD KINCH, F.I.C., &c., Professor of Chemistry in the Royal Agricultural College, Cirencester, &c. 8th Edition. Gurney and Jackson, 10, Paternoster Row, London, E.C. Oliver and Boyd, Edinburgh. 1906. Price, 6s. 6d. net.

Small 8vo volume, containing 336 pages of subject matter, with 42 illustrations. The subject matter is subdivided as follows:—I. Chemical Manipulation. II. Qualitative Analysis. III. Quantitative Analysis, which includes: (i.) Sampling and Analysis of Manures; (ii.) Analysis of Soils; (iii.) Analysis of Waters; (iv.) Analysis of Foods.

**DIE ELEKTROCHEMISCHEN DEUTSCHEN REICHPATENTE.** [Monographien über angewandte Elektrochemie, XXIV Band.] Auszüge aus den Patentschriften gesammelt, geordnet und mit Hinweisen versehen von Dr. P. FERCHLAND und Dr. P. REHLÄNDER. Wilhelm Knapp's Verlag, Halle a. S. 1906. Price, M. 10.

8vo volume, containing 230 pages of subject-matter, with 124 illustrations. The text is distributed under the following heads:—PART I. INORGANIC ELECTROCHEMISTRY.—I. Light Metals. II. Alkalies and Halogens. III. Hypochlorites ("Bleaching Liquor"). IV. Oxygenated Salts. V. Alkaline Earths. VI. Carbides. VII. Water Decomposition. VIII. Ozone. IX. Nitrogen Compounds. X. Heavy Metals. XI. Compounds of the Heavy Metals. XII. Apparatus. XIII. Furnaces. PART II. ORGANIC ELECTROCHEMISTRY.—I. Aniline. II. Benzidine and its Intermediate Products. III. Paraminophenols. IV. Dyestuffs and Intermediate Products. V. Pharmaceutical Products. APPENDIX.—Brief Abstracts of Patents granted during period from Jan. 1, 1905, to May, 1906. Also Patents which were still in force in May, 1906.

**PROBENAHME UND UNTERSUCHUNG VON KOKS, KOHLEN, UND BRIQUETTS.** Taschenbuch für Chemiker, Hütteningenieure, Kohlen- und Zechenlaboratorien und Gasanstalten. Von Dr. ADOLF BERTHOLD. G. D. Baedeker, Verlagsbuchhandlung, Essen-Ruhr. 1906. Price, M. 2.

Small volume of pocket-book size, containing 61 pages with 37 illustrations, and an alphabetical index. The text is subdivided as follows:—I. Investigation of Cokes, including Sampling. II. Investigation of Coals and Briquettes, inclusive of Sampling.

**PRODUCER GAS.** By J. EMERSON DOWSON and A. T. LARTER, B.Sc., &c. Longmans, Green, and Co., 39, Paternoster Row, London, New York, and Bombay. 1906. Price, 10s. 6d.

8vo volume, containing 270 pages of subject matter, including two Appendixes, filling 24 pages, and the alphabetical index. There are 73 illustrations. The subject matter is subdivided as follows:—I. Theory of Producer Gas. II. Furnace Work. III. Heating Work. IV. Engine Work. V. Suction Plants. VI. Gas from Bituminous Coal for Engine Work. VII. Stand-by Losses. VIII. Comparison of Gas and Steam Power. IX. Fuel. X. Analysis of Fuel and of Producer Gas.

**XI. Calorific Power of Solid and Gaseous Fuels. XII. Practical Notes. XIII. (Appendix) Theoretical Explanations and Reference Data.**

**SMALLER CHEMICAL ANALYSIS.** By G. S. NEWTH. Demonstrator in the Royal College of Science, London, &c. Longmans, Green, and Co., 39, Paternoster Row, London, New York, and Bombay. 1906. Price, 2s.

Small 8vo volume, containing 144 pages of subject matter, with 16 illustrations, and the alphabetical index. It is "practically an abridged edition of the qualitative section of" the author's "Manual of Chemical Analysis," and designed for students taking a less advanced stage than those for whom the latter and larger work was intended.

**MINES AND QUARRIES: GENERAL REPORT AND STATISTICS FOR 1905. PART III.—OUTPUT.** [Cd. 3196.] Wyman & Sons, Fetter Lane, London, E.C. Price 1s. 6d.

This return, which is prepared annually by the Home Office, contains statistics as to the quantity and value of various minerals raised in the United Kingdom. The value of the mineral output of the United Kingdom in 1905 was £95,870,723, a decrease of £1,606,916 as compared with the preceding year.

**IMPERIAL INSTITUTE. Indian Section. Annual Report for the year 1905-6.** [Cd. 3216.] Wyman & Sons, Fetter Lane, London, E.C. Price 2½d.

This report deals with the work of the Indian Section of the Imperial Institute during the year ended 31st March last. To the statement of the Indian Committee of the Imperial Institute is appended a report by Professor Wyndham Dunstan, F.R.S., on the Indian work of the Imperial Institute, together with a detailed account by Mr. C. E. Jones, superintendent of the Indian Section, on the work of the section during the year. A report by Mr. B. J. Rose on the Indian Trade Inquiry Office at 73, Basinghall Street, E.C., is also appended.

**COLONIAL IMPORT DUTIES RETURN.** [Cd. 3195.] Wyman & Sons, Fetter Lane, London, E.C. Price 2s. 6d.

This is a new issue of the return, showing the rates of import duty levied in the British Colonies, Possessions, and Protectorates, upon the principal and other articles of trade, which is prepared annually in the Statistical Department of the Board of Trade. The present issue contains a statement of the duties in force in 1906. The duties leviable in British Protectorates are, for the first time, incorporated in the body of the return, with the exception of those enforced in the Federated Malay States, British North Borneo, Sarawak, and Zanzibar, which are given as appendices.

**FOREIGN IMPORT DUTIES, 1906.** [Cd. 2340.] Wyman & Sons, Fetter Lane, London, E.C. Price 2s. 10d.

This return, which has been prepared in the Commercial Department of the Board of Trade, contains a statement of the rates of import duty, with their equivalents in English weights and currency, which are leviable in the principal European countries, the United States, China, Japan, Egypt, Persia, and Mexico, upon textiles, manufactures of iron and steel and other metals, earthenware, glass, leather and india-rubber wares, paper, stationery and books, paints, chemicals, articles of food, and numerous other articles of trade when imported from the United Kingdom. The changes observable on a comparison of this return with that issued a year ago [Cd. 2797] are numerous and important, owing mainly to the enforcement during the current year of new tariffs in Switzerland, Bulgaria, Russia, Germany, Austria-Hungary, Roumania, Spain, and Japan, while important alterations have also been made in the tariffs of Italy, France, Sweden, Belgium, and Greece. Particulars as to Mexico are included for the first time. A table is included showing the equivalent in English weights and currency of unit rates of duty expressed in various foreign weights and currency.