

PATENTS OF INTEREST TO CHEMISTS.

EDITED BY ALBERT H. WELLES.

Ore Separators, etc.—508,679, November 14, Carter, C., stamp mill and amalgamator. 508,008, November 7, Gelien, G. A., ore grinder. 508,542, November 14, Greer, R. C., ore roasting furnace. 508,381, November 7, Giroux, J. L., smelting furnace. 509,450, November 28, Rushforth, A. P., cupola or blast furnace. 509,439, November 28, Mace, G. A., lime-kiln. 509,550, November 28, Nickerson, T. K., lime-kiln. 508,282, November 7, Clancy, W., apparatus for screening and concentrating ores. 509,818, November 28, Lockhart, W. S., washing and separating minerals, jiggling apparatus.

Gold and Silver.—509,289, November 21, Bohm, W. D., apparatus for separation of gold from ores. 509,368, November 28, Engelhardt, E. C., treatment of ores; bromine, hydrochloric acid, and sodium carbonate are reagents used.

Lead.—508,115, November 7, Noad, J., white lead and colored pigments; float lead is treated with a solution of glycerol and acetic acid and carbon dioxide is admitted. 509,057, November 21, Waller, E., white lead; native lead carbonate heated with ammonium acetate solution is distilled, ammonium carbonate is condensed, and solutions of this and lead acetate are mixed. 509,058, November 21, Waller, E., and Sniffin, C. A.; argentiferous lead carbonate ores are concentrated by dissolving lead in acetic acid and boiling neutral acetate solution to convert into basic lead acetate, while silver is concentrated in the insoluble residue. 509,059, November 21, Waller, E., and Hinman, B. C.; white lead is precipitated from a basic lead acetate solution by dissolving carbon dioxide in water under pressure and forcing basic acetate into tanks.

Copper.—509,619, November 28, Helbig, P., hardening copper; melted copper is treated with glass and subcarbonate of iron and antimony is added. 509,633-634, November 28, Tuttle, D. K., and Whitehead, C.; slimes from refined copper are treated with dilute acid then with sulphuric acid or silver sulphate.

Aluminum.—508,796, November 14, Ackerman, W., aluminum fluoride; aluminum silicate is treated with hydrofluoric acid.

Antimony.—509,478, November 28, Mayer, T.; antimony oxide is dissolving in thirty-three per cent. hydrochloric acid and sixty-seven per cent. hydrofluoric acid and an alkali sulphate is added forming 2SbF_3 , M_2SO_4 , readily soluble in water.

Acids and Alkalies.—509,664, November 28, Howard, H., automatic regulator for concentrating sulphuric acid. 508,804, November 14, Blackmore, H. S., electrolysis of salts of alkalies. 508,915, November 21, Carozo, D. P. F., manufacture of salt; jets of air are forced into brine to concentrate it, the liquid is then transferred to another tank to deposit im-

purities, and then to a third tank and evaporated by air. 508,241, November 7, Richardson, J. C., electrolytic apparatus for the fixed caustic alkalis from sodium and potassium chlorides. 509,163, November 21, Helmer, N., ozone; prepared by adding hydrogen peroxide to a potassium carbonate solution.

Fertilizers.—508,220, November 7, Greenstreet, C. J.; nitrogenous fertilizer; tank water or stock is combined with a salt of manganese or iron.

Sanitary Chemistry.—509,560, November 28, Sprague, A. V. M., sterilizing apparatus.

Brewing and Distilling.—508,882, November 14, Hornbostel, C.; fermented and distilled liquors are treated with kieselguhr. 508,913, November 21, Burkhardt, A. G., apparatus for distilling and rectifying.

Bleaching and Dyeing.—508,261, November 7, Weldon, L., apparatus for dyeing. 507,995, November 7, Clegg, C. T., apparatus for bleaching and dyeing. 509,431, November 28, Graemiger, A. and J., apparatus for dyeing. 508,592, November 14, Austen, P. T., friable coloring matter obtained from dye-wood extracts by incorporating ammonium carbonate. 509,703, November 28, Taylor, A., extract from red-wood tree by treating with water and caustic alkali, neutralizing and precipitating solid matters. 509,635, November 28, Ulrich, M., and Bammann, J., brown tetrazo dye. 509,623, November 28, Lauch, R., brown dye, $C_{11}H_5N_2O_6$; made by treating with nitrous acid the compound resulting from action of diazotized amido hydroxy carbonic acid on resorcinol, or orcinol.

Tanning.—508,281, November 7, Chailly, F., tanning apparatus.

Organic Compounds.—509,087, November 21, Majert, W., piperazine. 509,055, November 21, Thoms, H., salicylate of orthotolyl dimethylpyrazolon, $C_{12}H_{14}N_{20}C_2H_4O_2$. 509,520, November 28, Fritsch, Paul, salicylic ester of acetol; made by heating a salicylate of an alkali and monohalogen acetone and separating the alkali chloride from acetol formed. 508,124, November 7, Turgard, H. D., denitrating nitro-cellulose by immersing in ammonium hydrosulphate and a metallic sulphide.

Sugar.—509,749, November 28, Morrell, J. A., process of and apparatus for evaporating cane juice. 508,747, November 14, Pellegrini, J. E., synthetic sugar; four parts of carbon dioxide, four parts of ethylene, and three parts of water are united by osmose.

Oils and Varnishes.—508,479, November 14, Kayser, A., hydrocarbon oils are deodorized by treating dried vapors with anhydrous nitric acid.

Plaster and Cement.—508,033, November 7, Mohle, A., artificial stone; sulphuretted slag, brick dust, waste sandstone, sand, cement, and sodium carbonate are used. 508,731, November 14, Majewski, H. A., artificial marble made from calcium sulphate, potassium sulphate, and a solution of alum. 509,428, November 28, Edison, T. A., composition brick; powdered rosin and petroleum are added to ore and heated to expel petroleum, while part of the rosin combines with the metallic oxide to form a resinate.

Miscellaneous.—509,396, November 28, Pennington, John C., retting bath for flax, composed of water, caustic potash, ammonia, sodium phosphate, magnesium sulphate, and manganese chloride. 508,015, November 7, Hoffman, H., removing bitterness from kola powder by treatment with hydrogen peroxide. 509,617, November 28, pharmaceutical compound; made from three parts of iodine and one part of meta cresotinic acid. 508,608, November 14, Etheridge, R. L., rosin, made by distilling crude turpentine and bluing. 509,209, November 21, Draper, J., scale is removed from boilers by a composition of water, mercury, sodium, or potassium, and sodium carbonate under heat and pressure. 509,280, November 21, Ash, T. M., to coat non-metallic articles; first cover, with a carrying medium and finely divided metal then treat with silver nitrate. 508,560, November 14, Briersdorf, P. C., treatment of gutta percha, treating with solvent to obtain uniform qualities. 509,460, November 28, Weinrich, M., revivifying spent bone black by impregnating with hot solution of gelatin, drying and charring. 509,589, November 28, Watel, E., process for purifying fatty matters, remaining after essential oils are extracted. 508,469, November 14, Cross, A. K., crayon for polished surfaces; composed of "ozokerite, coloring matter, glycerol, aga aga, and soapy materials." 508,777, November 14, Stearns, T. C., toilet soap; made from soap stock with sufficient almond meal to neutralize free alkali. 509,049, November 21, Schicht, J., soap; caustic alkali is heated to 135°C., fat is heated separately to 100°C., and the heated fat is injected into the hot alkali in fine jets and agitated.

NEW BOOKS.

A SELECT BIBLIOGRAPHY OF CHEMISTRY, 1492-1892. BY HENRY CAR-
RINGTON BOLTON. (Smithsonian Miscellaneous Collections, Vol. 36.)
Octavo, pp. XIII, 1212.

It is not too much to say of this book that one of greater usefulness to the chemist has not appeared within the last twenty-five years. The titles are given under the following heads: I, Bibliography, pp. 1-37; II, Dictionaries and Tables, including Nomenclature, pp. 38-84; III, History of Chemistry, pp. 84-170; IV, Biography, including Bibliographies of Individuals, pp. 171-257; V, Chemistry, Pure and Applied, pp. 258-942; VI, Alchemy, pp. 943-1067; VII, Periodicals, pp. 1068-1164; Addenda and Subject-Index, pp. 1165-1212. Titles in twenty-five languages are catalogued. Of these the titles of German books are most numerous; then come English, French, Latin, Italian, Dutch, Russian, Spanish, and Swedish. The other languages