

Abstracts of American Patents Relating to Chemistry.

(From the U. S. Patent Office Gazette.)

(Issued October 6th, 1891.)

460,570.—Manufacture of photographic film. Benjamin J. Edwards, London, Eng.

460,595.—Arc lamp pencil. Isaiah L. Roberts, Brooklyn, N. Y.

A pencil for arc lamps, composed of a metal associated with a substance containing chromium, or a metal tube filled with chromate of iron and hydrate of sodium.

460,621.—Process of giving a matte surface to albuminized silver-paper photographs. James D. Wriggleworth and Frederick C. Binns, Wellington, New Zealand.

460,629.—Apparatus for making artificial silk. Hillaire de Chardonnet, Besancon, France.

460,683.—Apparatus for testing mine gases. Thomas Shaw, Philadelphia, Pa.

460,685.—Apparatus for coating plates with tin. Henry F. Taylor and William B. Struse, Briton Ferry, Eng.

460,697.—Hydraulic lime. John H. Wright, Louisville, Ky.

Crude potash, crude soda ash, alum, sulphate of lime and water are combined with unslaked lime.

460,722.—Apparatus for washing and separating gold and silver from their ores. William J. Tanner, London, Eng.

460,732.—Ore separator. Horace H. Taylor, Fresno, Cal.

460,733.—Ore feeder. James Tulloch, Angel's Camp, Cal.

460,814.—Concentrator. Gustav Lang, San Francisco, Cal.

460,842.—Composition of matter for soles of shoes. George E. Brown and John W. Blackwell, Wrentham, Mass.

A composition of rubber, litharge, whiting, flour of sulphur, lamp black, and a gritty substance.

460,861.—Preserving compound. James M. Gillihan and Thomas J. Gillihan, Olathe, Kans.

Nitrate of potassium, sulphur and salicin are the preservatives used.

460,985.—Process of making sodium or potassium. Curt Netto, Dresden, Saxony, Germany.

Process for the production of potassium or sodium from their hydroxides in a continuous operation, which consists in bringing the caustic alkali into contact with the reducing carboniferous matter at such a low temperature that only the caustic alkali is reduced to a metallic state, while the alkali carbonate simultaneously formed remains undecomposed

and is withdrawn out of the reach of the reducing carboniferous matter without interruption of the reducing process or the admission of air to the reducing vessel or retort during the reducing operation.

460,989.—Process of preparing wort. Carl Rach, Chicago, Ill.

A mash of malt is first made and separated into thin liquid and a thick mash; second, the thick mash is cooked at the boiling point; third, making a mash of natural cereals mixed with a small per cent. of malt and stirred and cooked under pressure; fourth, mixing, cooling and stirring the two thick mashes above referred to; fifth, cooling this mixture and the thin liquid above referred to to about 158° F., and mixing half of the thin liquid with the mash; sixth, letting the mash stand until the erythrodextrine reaction has ceased; seventh, raising the temperature of the remaining thin liquid to boiling point and then mixing it with the mash so as to raise the temperature of the whole to 176° to 178° F.; eighth, drawing off the wort in the ordinary way.

461,010.—Process of removing lime from hides. Charles W. Cooper, Brooklyn, N. Y.

The said materials are subjected in a bath of water to carbonic acid gas.

461,024.—Composition for electric batteries. Daniel M. Lamb, Boston, Mass.

461,026.—Compound for electric batteries and method of preparing the same. D. M. Lamb, Boston, Mass.

461,034.—Process of making quick malt. Martin L. Mowrer, Dayton, O.

Malt is soaked in water of a temperature of 100 to 150° F. for a period of about six hours, then slowly drained for about the same length of time, then crushed and dried.

461,050.—Crushing machine. Wilhelm Schranz, Laurenburg, Germany.

461,086.—Blue azo dye. Gustav Schulz, Berlin, Germany.

Hexa azo dyes derived from one molecule of tolnidine or anisidine, one molecule of alpha-naphthylamine, and two molecules of an alpha-naphthol disulpho acid. The dyes are insoluble in alcohol, readily soluble in water and sulphuric acid, and are not readily affected by air and light.

461,108.—Process of tanning. Robert W. Turner, Dublin, Tex.

The hides are subjected first to a weak solution and then to a strong solution of an infusion of the plant *Amphiachyris Draconculoides*.

461,164.—Process of making fertilizer from stick. Joseph Van Ruymbeke, Chicago, Ill.

The stick is first treated with sulphates in the usual way, then dissolved in sulphuric acid, and then mixing therewith tribasic phosphate of lime and allowing the mass to lie until apparently dry.

461,235.—Device for feeding chemicals to filters. Thomas H. Butler, Baltimore, Md.

461,251.—Art or method of galvanizing metal. Henry K. Swinscoe, Clinton, Mass.

461,260.—Hemp or flax decorticating machine. Augustus E. Ellinwood, Akron, O.

461,343.—Method of and apparatus for producing from coal smokeless flame for heating. William A. Koneman, Chicago, Ill.

461,365.—Process of preserving timber. James McKeon, Oakland, Cal.

461,372.—Jelly extractor. Rose Smith, Grand Rapids, Mich.

461,394.—Process of and apparatus for manufacturing gas. James M. Rose, Alleghany, Pa.

(Issued October 20th, 1891.)

461,416.—Process of obtaining alumina from bauxite. Joseph A. Bradburn and John D. Pennock, Syracuse, N. Y.

The process consists in oxidizing the iron and organic matter by treatment with a hypochlorite and carbonic acid gas, then treating the oxidized bauxite with caustic soda solution, filtering out the liquor, precipitating the hydrate of aluminum, and calcining it.

416,425.—Ore concentrator. Frederick M. Eudlich, Ouray, Col.

416,429.—Mining sulphur. Herman Frasch, Cleveland, Ohio.

The process consists in liquefying the sulphur in the mine by fusion and removing the melted sulphur.

461,430.—Apparatus for mining sulphur. Herman Frasch, Cleveland, Ohio.

461,431.—Mining sulphur. Herman Frasch, Cleveland, Ohio.

A sulphur solvent is used to remove the sulphur from the underground deposit.

461,467.—Composition of matter for insulating purposes. Marcus O. Farrar and Charles C. Howe, Bristol, N. H.

461,513.—Lubricant. Adolph Sommer, Berkeley, Cal.

A fluid or unctuous lubricant, consisting of a mineral lubricating substance and compounds of chloride of sulphur with fats or fatty oils.

461,542.—Process of making concrete tombstones. Neill C. Cameron, Magnolia, Ark.

461,550.—Drying, dessicating and roasting apparatus. Carl Salomon, Brunswick, Germany.

461,664.—Construction of apparatus for softening and purifying water. Richard S. Brownlow, Manchester, Eng.

461,665.—Process of producing hydrofluosilicic acid. Thomas W. Cappon, Brooklyn, N. Y.

Fluoride of silicon is passed into an aqueous solution containing hydrofluoric acid.

461,675.—Process of and apparatus for refining cotton seed oil. William A. Grant, Houston, Tex.

461,681.—Process of purifying bromine. Jacob C. Kautz, Mason, W. Va.

The bromine is passed in a gaseous form, before condensing, through a solution of the bromide.

461,684.—Process of mashing. Leopold Mandl, Buda-Pesth, Austria-Hungary.

The raw material is introduced into a body of water, heated to not over 100° C., heat is then discontinued, and the mash subjected to air under high pressure for a desired time.

461,692. }
461,693. } Concentrators. Bryon Tyson, Washington, D. C.

461,774.—Process of making yeast. Akos Von Sigmund and Rudolf Genge, Klansenburg, Austria-Hungary.

The yeast is manufactured from starch-containing substances by "treating the raw material with acid, holding the matter under steam pressure until the formation of dextrose is completed, then neutralizing the excess of acid in the mash, adding a second protein-containing mash produced by steaming raw material mixed with acidulated water until it is saccharified, mixing this second mash with the first mash, filtering the entire mash to obtain a clear wort, fermenting the clear wort by an addition of yeast while simultaneously passing clarified or ozonized air through the wort, and finally separating the yeast from the fermented wort."

461,783.—Coffee roaster. Adolphus D. Goodwin, Salem, Va.

461,789.—Crushing and grinding mill. James W. Winchell, Springfield, Ohio.

(Issued October 27th, 1891.)

461,823.—Secondary battery electrode. Justus B. Entz, New York, William A. Phillips, Brooklyn, N. Y.

461,858.—Secondary battery. Montgomery Waddell and Justus B. Entz, New York, N. Y.

461,888.—Process of manufacturing artificial stone, etc. George Richardson, Washington, D. C.

461,889.—Machine for solidifying concrete mixtures. George Richardson, Washington, D. C.

461,890.—Concrete block and method of making the same. George Richardson, Washington, D. C.

461,893.—Ore concentrator. Charles E. Seymour, Hurley, Va.

461,965.—Galvanic battery. Calvin N. Southern, Chicago, Ill.

461,973.—Process of manufacturing compressed cakes of soap. Edward G. Brown, Brooklyn, N. Y.

461,980.—Manufacture of enameled brick. Wenzel A. Miksch, Philipsburg, Pa.

A coating of enamel is applied to a green brick, then exposed to a temperature sufficient to simultaneously burn the brick and fuse the enamel, and after cooling the brick, coating its surface with a fusible

colored glazing compound of low melting-point and reheating the brick to melt the glaze.

461,982.—Apparatus for manufacturing gas. Trent T. Prosser and Chas. H. Wilder, Boston, Mass.

462,021.—Gas retort furnace. William H. Snow, Holyoke, Mass.

462,035.—Furnace for burning garbage. Miles L. Davis, Lancaster, Pa.

462,085.—Sulphur candle. Stephen B. Morss, Rahway, N. J.

462,095.—Process of extracting juice from sugar scum. August Hamelberg, San Domingo, San Domingo.

The scum previously obtained from cane juice is distributed over the shredded or partially pressed canes, and then subjected to another pressing operation.

462,103.—Ore crusher. Percy R. Shill, East Dulwich, Eng.

462,118.—Refrigerating apparatus. Jacob Erney, Philadelphia, Pa.

462,120.—Vulcanizer. James Fergus, Philadelphia, Pa.

462,137.—Process of revivifying gas purifying agents. • Charles W. Jones, Milan, Italy.

462,161.—Manufacturing of gas. Trent T. Prosser and Chas. H. Wilder, Boston, Mass. J. F. G.