

## Abstracts of American Patents Relating to Chemistry.

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

*Patents issued March 31, 1891.*

**449,104.**—Process of coloring and finishing fabrics. Victor G. Bloede, Baltimore, Md.

The fibre is impregnated with starch or a mixture of starch and coloring matter and then treating the impregnated fibre with a solution of caustic lime or other equivalent compound which has the power of rendering the starch insoluble.

**449,152.**—Artificial stone. Louis Enricht, New York, N. Y.

Prepared from magnesium oxide, calcium oxide, magnesium chloride, sodium silicate, and water.

**449,214.**—Manufacture of artificial stone. Louis Enricht, New York, N. Y.

A magnesia cement similar to the above.

**449,271.**—Filter for syrups and juices in sugar works. Karl Proks, Prague, Austria-Hungary.

**449,292.**—Ore concentrator. Frank B. Morse, Murphy's, Cal.

**449,339.**—Shoe blacking. George P. Tipton, Hot Springs, Ark.

Arkansas graphite (graphitic shale) is incorporated with the oils and acids of an ordinary shoe blacking.

**449,356.**—Manufacturing chains by electric welding process. Elihu Thomson, Lynn, Mass.

**449,437.**—Tanner's oil. William B. Davis, Newport, N. Y.

An oil mixture consisting of stearine, tallow, raw linseed oil, and oil of citronella.

**449,454.**—Process for degumming and preparing. Walter R. Wade, Brooklyn, N. Y.

Fibre is boiled in an alkaline solution of potash or soda containing saponine.

**449,455.**—Ditto.

The fiber is boiled in an alkaline solution containing quillain bark, or a decoction or extract thereof.

**449,508.**—Process of brewing malt liquors. Basil W. Valentine, Birmingham, Eng.

The unhopped wort, after it has left the mash-tun, is heated to a temperature of about 180° Fahrenheit to coagulate certain nitrogenous substances, and then quickly cooling the wort to a temperature of 150° F., after which the wort is sprayed and filtered through the grain.

**449,510.**—Process of manufacturing cement. George Williams, Winnipeg, Canada.

Carbonate of lime and silicate of soda are treated by steam under pressure and to the resulting compound alumina and silic acid and a thin paste of chloride of calcium, unslaked lime and warm water are added, the mass molded into convenient forms, then burned to a white heat, after which the mass is ground to a fine condition.

**449,520.**—Benzo-rhodamine. Maurice Ceresole, Neuville, France.

A red dye stuff. Soluble in cold water, more soluble in hot water. Readily soluble in water containing a little hydrochloric acid, readily soluble in alcohol, the red solution showing the striking yellowish-orange fluorescence, insoluble in ether and benzine, soluble in conc. sulphuric acid with orange-yellow color, and in hydrochloric acid giving a scarlet red solution.

**449,530.**—Bengal light compound. Charles Gerhard, Jersey City, N. J.

A compound for Bengal lights consisting of copal, ether, alcohol, strontium, nitrate and potassium chlorate with or without shellac or varnish.

**449,547.**—Composition for use in the manufacture of steel. James Mackintire, Sheffield, England.

A compound consisting of calcium carbonate and phosphate, black oxide of manganese, tannic acid or tannin, vegetable root, animal charcoal or bone black and tar.

**449,551.**—Dihydroxynaphthalene. Eugene Mentha, Ludwigshafen-on-the-Rhine, Germany.

Dihydroxynaphthalene melts at 160°–161° C., is slightly soluble in cold water, readily soluble in hot water, alcohol, ether, fusel oil, slightly soluble in benzine and petroleum ether, and yields an intensely blue coloration with ferric chloride solution.

**449,552.**—Settling and amalgamating pan for machinery for extracting gold and other precious metals. William A. Merralls, Kansas City, Mo.

**449,586.**—Art of producing ground wood pulp. Edward F. Millard, Jackson, Mich.

**449,603.**—Apparatus for making extracts. Stephen C. Thrall, Elk Rapids, Mich.

**449,610.**—Magnetic separator. Richard R. Moffatt, New York.

**449,619.**—Artificial stone or cement. L. Enricht, New York, N. Y.

A magnesia cement.

**449,629.**—Black dye. Jakob Schmid, Basle, Switzerland.

A dark brown powder derived from monoalkylized derivatives of beta-naphthylamine and a diazo compound of the formula



which is easily soluble in water, difficultly soluble in alcohol, insoluble in benzene. Its aqueous solution is not changed by the addition of caustic alkalies, but is precipitated by addition of mineral acids.

*April 7th, 1891.*

**449,675.**—Illuminated embossed paper and process of producing the same. Philipp Hake, Hoboken, N. J.

**449,687.**—Process of and apparatus for making explosives. Hiram S. Maxim, Crayford, England.

**449,726.**—Process of and apparatus for separating ores magnetically. Clinton M. Ball, Troy, N. Y.

**449,737.** } Paper building material. Silas H. Hamilton, Philadelphia,  
**449,738.** } Pa.

**449,741.**—Composition for treating seeds. John Johann, Harrison, Wis. To prevent the destruction of seeds by insects. The seeds are treated with a solution containing saltpeter and salt, with or without blue vitriol.

**449,747.**—Apparatus for extracting sugar from saccharine materials. George E. Patrick, Ames, Iowa.

**449,750.**—Art of making ornaments, etc., from hair, and composition for use in the same. Margaret I. Waldron, St. Joseph, Mo.

**449,758.**—Process of collecting the aromatic and volatile substances from coffee. Nicholas L. Le Turcq des Rosiers, Etain, France.

**449,783.**—Process of making metallic composition. Elizabeth J. Rollings, Mobile, Ala.

Anti-friction alloys are made by melting the metallic charge and then combining therewith a powdered mixture of plumbago, alum and charcoal.

**449,794.**—Method of preparing flour. Eli H. Dunn, Elma, Iowa.

**449,803.**—Crucible for the manufacture of steel. George Nimmo, Allegheny, Pa.

**449,809.**—Apparatus for the manufacture of gas. Charles Teller, Paris, France.

**449,813.**—Apparatus for extracting gold or silver from ores. Joseph Cragg, Baltimore, Md.

**449,814.**—Lixiviation process of and apparatus for the extraction of gold or silver. Samuel W. Cragg, Baltimore, Md.

**449,815.**—Process of extracting gold or silver from ores. Joseph Cragg, Baltimore, Md.

**449,836.**—Method of electric welding. Elihu Thomson, Swanipscott, Mass.

**449,839.**—Process of preparing pepsin. Joseph L. R. Webber, Detroit, Mich.

Animal's stomachs are macerated in acidulated water and to the resultant solution sulphurous acid is added, after which at a suitably high temperature the solution is precipitated and clarified by the addition of sodium sulphate. The precipitated pepsin is dissolved in dilute hydrochloric acid and the sodium sulphate removed by dialysis and crystallization.

**449,850.**—Coffee roaster. Olof Hammarström, Worcester, Mass.

**449,853.**—Device for drawing steam beer. Constant Harthl. Willows, Cal.

**449,874.**—Manufacture of decorative relief material. Louis Enricht, New York, N. Y.

**449,890.**—Apparatus for electroplating small articles. Frederick W. Zingsem, New York, N. Y.

**449,976.**—Apparatus for lixiviating sugar. Carl Steffen, Vienna, Austria-Hungary.

**449,998.**—Process and apparatus for hardening hollow articles of steel. Henri A. Brustlein, Unieux, France.

**450,013.**—Ore concentrator. Walter J. Hammond and John Gordon, Rio de Janeiro, Brazil.

**450,020.**—Dyeing machine. Joseph Hussong, Camden, N. J.

**450,037.**—Black dye. Hermann Reisenberger, Höchst-on-the-Main, Germany.

A quinoline compound derived from amido-purpurine, which is a black basic dye or paste, soluble in soda lye with violet red color subliming on heating in small green needles, and, when heated quickly in a tube with twenty parts of zinc dust, converted into the anthraquinoline described by Graebe.

**450,052.**—Apparatus for burning gas tar or other liquid fuel. William Bliss and Enoch Bradbury, etc., Birmingham, Eng.

**450,063.**—Ore concentrating machinery. Calvin M. Fitch, Chicago, Ill.

**450,099.**—Method of producing light by incandescence. Otto B. Fahnehjelm, Stockholm, Sweden.

**450,103.**—Electrolytic apparatus. Ernest A. Le Suem, Ottawa, Canada.

**450,104.**—Electrolytic cell. Ernest A. Le Suem, Ottawa, Canada.

**450,119.**—Process of manufacturing imitation horse hair from palmetto. Constantine B. Warrand, Bluffton, S. C.

**450,120.**—Process of extracting palmetto fiber. Constantine B. Warrand, Bluffton, S. C.

**450,121.**—Process of and composition for tanning. Constantine B. Warrand, Bluffton, S. C.

The hides are subjected to a series of baths containing a compound extracted from the leaves of the saw palmetto (*sabal serrulata*).

**450,123.**—Incandescent light. Otto B. Fahnehjelm, Stockholm, Sweden.

**450,522.**—Fumigating compound. Charles F. Morris and Thomas Chenevat, Blencoe, Iowa.

A mixture consisting of sulphur, white sugar, charcoal, wood ashes, salt, and with or without saltpeter.

**450,531.**—Phosphatic fertilizer. Jacob Reese, Philadelphia, Pa.

Consists of muriate of potash and pulverized calcareous phosphatic slag.

**450,534.**—Apparatus for extracting hops. John Schneider, Cleveland, Ohio.

**450,591.**—Apparatus for making dope for explosives. John C. Schraeder, Dover, N. J.

*April 14th, 1891.*

**450,199.**—Ice freezing machine. Charles C. Smith, Brooklyn, N. Y.

**450,201.**—Brick or tile machine. John C. Titus, New Bremen, Ohio.

**450,232.**—Boiler cleaning compound. Edw. J. Hoffman, Sioux City, Iowa.

A compound consisting of gum of japonica, oak bark, borax, calcined magnesia, carbonate of soda and water.

**450,243.**—Process of clarifying liquids. Carl Liesenberg, Halle-on-the-Saale, Germany.

The process consists in adding to the liquid to be clarified a solution containing a phosphate and sulphurous acid.

**450,253.**—Ammoniated phosphate. Jacob Reese, Pittsburg.

**450,254.**—Phosphatic fertilizer. Jacob Reese, Pittsburg.

**450,255.**—Phosphatic fertilizer. Jacob Reese, Pittsburg.

**450,264.**—Varnish. Edmond W. Todd, Newark, N. J.

A solvent consisting of a distillate of fusel oil, benzine and acetic acid.

**450,280.**—Ore concentrator. Louis W. Young, New York, N. Y.

**450,287.** } Art of making plaster casts. Louis Enricht, New York, N. Y.

**450,288.** }

**450,304.**—Art of making filaments for electric lighting. Silvanus F. Van Choate, Boston, Mass.

**450,391.**—Centrifugal butter extractor. Adolph Wahlin, Stockholm, Sweden.

**450,404.**—Preparing ozone water. Julius C. Ditrich, New York, N. Y.

Water containing a phosphite or hypophosphite is charged with ozone.

**450,425.**—Heat annunciator. Adolph Reinemann, New York, N. Y.

**450,437.**—Feed water purifier. Henry Warden, Philadelphia, Pa.

**450,492.**—Continuous automatic machine for the manufacture of starch. John A. Ostenberg, Des Moines, Iowa.

**450,501.**—Method of recovering vaporized solvents. James R. Whiting, New York, N. Y., and William A. Lawrence, Waterville, N. Y.

**450,887.**—Process of obtaining eegonine. Carl T. Liebermann Berlin, and Fritz Giesel, Brunswick, Germany.

**450,890.**—Ore crusher. William L. Morris, Cleveland, Ohio.

**450,930.**—Process for removing lime from hides. Wilhelm Dieterle, Feuerbach, Germany.

The lime is neutralized with an "aqueous solution of oxnaphthoic and cresotinic acids."

**450,998.**—Tanning material. Wilhelm Dieterle, Feuerbach, Germany.

A tanning extract or liquor containing cresotinic acid or its soluble salts.

*April 21st, 1891.*

**450,616.**—Method for burning fuel in furnaces. Ellis F. Edgar, Woodbridge, N. J.

**450,666.**—Machine for welding metals. Herbert E. Fowler, New Haven, Conn.

**450,702.**—Process of reproducing oil paintings. Louis Mayer, London, Eng.

**450,750.**—Process of manufacturing hydraulic cement. James B. Speed, Louisville, Ky.

**450,756.**—Ore washer. William S. Hull and James C. Anderson, Sheffield, Ala.

**450,834.**—Method of making plates of secondary batteries. Stanley C. C. Currie, Philadelphia, Pa.

The method "consists in fusing the salt or salts of a metal, casting and attaching the fused mass to and between a woven envelope and a core, forming a matrix in said mass by removing the core, and attaching the mass to a support by casting fused metal into the matrix and reducing the cast salt or salts to the metallic state by eliminating the acid radical."

**450,840.**—Galvanic battery. Charles Willins, Baltimore, Md.

J. F. G.