Abstracts of Patents Relating to Chemistry.

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

May 6th, 1884.

297,971.—Manufacture of artificial stone and marble.—H. A. Daniels.

A mixture of incompatible substances.

297,988.—Apparatus for manufacturing illuminating gas.—A. O. Granger.

A body of coal in a furnace is heated by a blast of air, and the resulting products are burned in a fixing chamber, whereby it is heated. Steam is then decomposed by passage through the heated coal, forming carbonic oxide and hydrogen, which are stored in a holder. They are thence passed to and carbureted in a separate auxiliary hydrocarbon-vaporizer, and the carbureted gas is fixed by passing it through the said heated fixing chamber.

298,026.—Method of manufacturing artificial stone.—M. B. Randle and B. E. Turner.

A partially hardened mass of cement, sand and lime, is subjected to a rubbing operation of cement, lime and water for filling the pores, etc. The stone is finally saturated with lime water.

298,057.—Gas generator and 298,058 Carbureter.—L. C. Beebe.

Hydrogen is evolved from aciduated water and iron scraps, and passed through gasoline or other hydrocarbon.

298,072.—Insulating material.—D. H. Dorsett.

Composed of coal tar, paraffine, silicious sand, and pulverized coal ashes and cinders, black oxide of manganese, and ammonium chloride.

298,101.—Process for the purification of water.—A. R. Leeds.

The water is saturated with oxygen or ozone, by causing it to come in contact, while under artificial pressure and in motion, with compressed air in a system of pipes and air chambers, permitting both air and water to enter under pressure, to move through said system while under pressure, and to be discharged into a suitable reservoir.

298,149.—Process of dissolving metals in ammoniacal solutions.—C. R. A. Wright.

Consists in subjecting fragments of copper, etc., to the action of water, ammonia and a stream of air.

298,165.—Apparatus for extracting cane juice.—G. B. Boomer. Improvement on patent No. 269,628 to same inventor.

The cane is cut into short lengths and submitted to the fumes of burning sulphur, then steamed in a closed tank and finally pressed.

298,175.—Galvanic battery.—C. L. Clarke.

A galvanic cell having an oxide of mercury as the depolarizing agent, and a solution of potassic or sodic hydrate as the exiting fluid.

298,256.– Process of obtaining soda.—J. Townsend.

Kainit is mixed with silica or silica and alumina, the mixture heated and air or steam passed through it, whereby chlorine or hydrochloric acid is evolved. Carbonacious material is mixed with the residue to reduce the sulphates into sulphides. The solutions resulting from the lixiviation of the latter are treated with carbonic acid to form carbonates.

298,281.—Asbestus compound and articles made therefrom.—C. F. Brigham.

Asbestus and magnesia paper pulp incorporated and made plastic to be molded.

298,282.—Fire and waterproof material for roofing.—C. F. Brigham.

Asbestus board or paper treated with silicate of soda and with chloride of calcium.

May 13th, 1884.

298,365.—Metallic alloy for safes.--J. Farrel.

Tin plate scrap, iron and franklinite iron.

298,366.—Rendering goods and fabrics water-proof.—R. S. Forbes.

The goods are soaked in a waterproofing solution composed of vegetable or mineral wax or paraffine dissolved in a light hydrocarbon, dried, steamed, subjected to the action of sulphuric acid, and then washed and neutralized by means of an alkaline solution.

298,426.—Furnace for the manufacture of metals direct from the ore.—J. A. Stearns.

298,462.—Apparatns for generating and carbureting hydrogen gas.—L. S. Groves.

Hydrogen is evolved from iron clippings and carbureted by passing through gasoline.

298,617 and 618.—Method and process of treating cotton seed.—J. F. O'Shaughnessy.

Relates to mechanical processes for separating the fiber from the pulverized hulls.

298.640.—Separating liquid from solid matter and mechanism therefor.—H. Warden.

A filtering press in which successive charges of the liquid are subjected to filtration and pressure.

298,663.—Process and apparatus for extracting gold and silver from their ores.—C. P. Bonnett.

An amalgamation process with electrified mercury.

298,669.—Retort for ammonia ice-making apparatus.—M. S. Conly.

A series of pipes and partitions whereby aqua ammonia is caused to flow in one direction through the retort, and hot water is caused to flow in the other direction, thus subjecting the aqua ammonia to a constantly increasing heat.

298,712.—Apparatus for reducing, refining and separating hydrocarbon oils.—E. W. Strain.

May 20th, 1884.

298,734.—Apparatus for reducing sulphur.—F. Dickert.

A vertical cylinder furnished with strainers and surrounded by a steam jacket.

298,758.—Filter press.—S. H. Johnson.

Suitable projections upon the drainage surface of the press plates cause the one to support the other.

298,816.—Separating the oil from the earth used in refining oils or fats.—M. A. Beal.

Consists in subjecting the fat-saturated earth to boiling in a relatively large body of water and then removing the fat from the surface of the water.

298,941.—Paint.—L. Brown.

Sublimated zinc powder and whiting or other suitable coloring matter and a vehicle.

298,983.—Process of purifying molten iron and steel.—H. Keeler.

Consists in combining them while in a molten state with a mixture formed of pure copper filings and pulverized resin.

298,997.—Electric battery.—O. Millard.

Employs a mixture of lumps of carbon and lead chromate as an electrolyte in connection with an alkaline solution.

298,998.—Obtaining brown dyes from the aromatic diamines.—P. Monnet.

Consists in saturating the material in a bath composed of chlorhydrate of paraphenylene-diamine, or its specified equivalent, sulphuric acid, and water, then wringing, and then treating the material in an oxydizing-bath for developing the color.

299,088.—Composition of matter to be used as a fire and water protective paint.—F. L. Putt and J. B. Stratton.

Coal-gas tar, chloride of sodium, Wisconsin mineral paint, Venetian red, sulphur, resin, asphaltum and other substances too numerous to mention.

May 27th, 1884.

299,167.—Process of bleaching, deodorizing, and sweetening benzine. J. Rowsell.

The petroleum benzine is subjected to successive applications of sulphuric acid, alkali, solution of saltpetre and sulphuric acid, solution of sugar of lead and blue copperas, and finally to the chromates or bichromates of potassium sodium or ammonium.

299,198.—Percolator. C. K. Bradford and J. G. Benedict.

A drug percolator, consisting of a vessel provided with a detachable cover in combination with an air-forcing device.

299,324.—Process of purifying or refining petroleum and other distillable oils. R. Baynes and J. Fearenside, Jr.

Consists in adding to the oil, pulverized dry coke or charcoal impregnated with anhydrous chloride of zinc, until it arrives at the consistency of mud, subjecting it to distillation and then condensing the distillate.

299,337.—Apparatus for washing phosphate rock, ores, etc. F. Brotherhood.

Relates to mechanical arrangements for attaining this object.

299,351.—Compound for cleaning paint. A. S. Cluff.

For cleaning painted surfaces of wood, iron, etc., consisting of lime, borax, sal soda, sapolio, Georgia clay, whiting, ammonia, oil of vitriol, and water.

299,372.—Composition of matter for giving a metallic surface to paper. J. Fransecky.

Argentine, vermillion, silver bronze, glue and water.

299,385.—Process of and apparatus for producing heating gas. H. Haug.

From carbonaceous material and steam or carbonic acid, or mixture of both. Not intelligible without the specification and drawing.

299,388.—Apparatus for the manufacture of nitrocellulose. J. W. Hyatt, F. V. Pool, J. Everding, J. H. Stevens, and W. H. Wood.

Consists of settling tanks, storage tanks, fresh acid tanks, weighing or measuring tanks, temperature regulating pots, converting pots, centrifugal machine, etc.

June 2d, 1884.

299,589.—Gas purifier and method of revivifying iron sponge. O. H. Shiras.

Iron sponge used for purifying gas, after having become fouled, is reoxidized and revivified in the purifying box by means of a current of steam and air blown through it.

299,611.—Process of refining petroleum. L. A. Baker.

Separate crude petroleum into its light and heavy constituents by mixing with snow and filtering off the lighter constituent from the cooled mixture.

299,704.—Dressing compound for threads, yarns, etc. J. S. Wattles.

Composed of starch, flour, grease, spirits of turpentine, or its equivalent, alum water, and paraffine wax.

299,774.—Washing and purifying salt. S. S. Garrigues.

Place the salt in storage bins having perforated bottoms and allow a saturated solution of pure salt to percolate through it.

299,810.—Manufacture of artificial stone. B. Lande.

Cement, and pulverized iron slag.

299,830.—Process of obtaining hydrochloric acid from the residues of ammonia soda manufacture. L. Mond.

Produces hydrochloric acid from these residues containing chloride of ammonium and chloride of sodium, by evaporating them, whereby the chloride of sodium salts act, and treats the remaining product with sulphuric acid.

299,857.—Preparation of collodion. E. Schering.
Not intelligible without the specification.

299,860.—Paraffine freezer. W. C. Scofield.
A hollow disc provided with pipes to supply cooling liquid to the chamber in the disc, and provided with suitable means for sprinkling liquid paraffine on the disc and automaticlly removing it when frozen.

299,900.—Manufacture of glucose. L. Barbier.
Applies the carbonation process or treatment with carbonic acid to the impure syrups obtained by the direct saccharification under pressure of the amylaceous or other materials previously cooked, disintegrated and diluted.

299,919.—Gas generator. P. English.

June 10th, 1884.

300,008.—Carbonic acid gas generator. L. W. Puffer.
For the manufacture of mineral waters.

300,018.—Gasometer for washing carbonic acid gas. R. F. Scannell.

300,023.—Antifriction composition. W. W. Smalley.
Graphite, shellac and gum copal.

300,027.—Apparatus for preparing oxygenated air. A. Stamm.
The combination with an air compresser of two strong closed tanks which are filled with liquids that absorb oxygen in comparatively larger proportion than nitrogen, preferably with water having a layer of oil or glycerine (?) on top.

300,035.—Process of and apparatus for electro-depositing copper, brass, etc. W. H. Walenn.
The solution consists of cyanide of potassium and neutral tartrate of ammonium, charged by electrolysis with the metal or alloy to be deposited and perfected by the addition of cupric ammonide.
The process of electro-depositing metals and alloys by subjecting them to the action of an electro-depositing solution in a closed vessel under a pressure exceeding that of the atmosphere at a temperature of from 190° Fahr. up to the boiling point of the solution.

300,133.—Process of and apparatus for producing cold. J. C. Rossé.
Consists in applying to a liquid a chemical that will produce cold while going into solution therein, using the cold solution thus formed to cool a fresh body of liquid, then dissolving a cooling agent in, and thus further reducing the temperature of the second body of liquid.

300,176.—Galvanic element. W. Wenzel.
The negative electrode, zinc, is contained in a dialyzing cell and immersed in an alkaline solution, in combination with a positive electrode of platinum or carbon immersed in nitric acid of 30° to 40° Beaumé contained in a second porous cell, and a conducting liquid, sulphuric acid of from 50° to 70° Bé. to electrically connect the electrodes through the medium of the constant osmotic exchange between the sulphuric and the nitric acid.

300,190.—Fire extingushing compound. N. G. Bartlett.

A fire extinguishing grenade hermetically sealed containing free carbonic acid gas, together with the alkaline chlorides, and an alkaline chloride in solution therein.

300,281.—Explosive compound. W. R. Quinan.

A low-explosive powder composed of a small proportion of nitroglycerine, carbonaceous material, either pulverized or in the form of non-porous small masses or grains, and an explosive salt in the form of non-porous untriturated small masses, grains or crystals.

300,324.—Alloy for coating metals. C. E. Manby.

Lead from sixty to eighty per cent.; zinc from ten to fifteen per cent.; tin from fifteen to twenty per cent., and nickel from six one-hundredths of one per cent. to one per cent.

300,330.—Process of and apparatus for manufacturing gas. J. L. Stewart.

Consists in producing water gas by the decomposition of steam in contact with heated carbon, drawing such gas while hot directly into a vaporizing and mixing conduit by means of a jet of oil under pressure, and thereby forcing the gas into the vaporizer and carbureting it, and then combining and fixing the mixture in heated retorts.

300,331.—Process of and apparatus for manufacturing gas. J. L. Stewart.

Consists in raising a body of fuel to incandescence by combustion thereof with air and decomposing steam in contact with the incandescent fuel by intermittent operations, and periodically raising and breaking up the body of fuel by sudden puffs or blasts of a gaseous or uniform fluid under high pressure greater than the ordinary air blast.

O. H. K.