

## Abstracts of American Patents relating to Chemistry.

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January 22, 1884.

**292,236.**—Process of mixing and consuming hydrocarbons with pulverized earth.—J. Leede.

**292,237.**—Apparatus for feeding and consuming fine fuel.

The hydrocarbons are mixed with granular material or pulverulent fuel and the mixture blown into a furnace and burned while in suspension.

**292,260.**—Utilizing waste calcium chloride and sulphate produced in the manufacture of acetic acid from acetate of lime.—C. Semper. Not intelligible without the specification.

**292,269.**—Composition for sizing yarn. J. W. Wattles (see also Nos. 186,435 and 172,216). A sizing or dressing composed of acetic acid, starch and grease or oil.

**292,341.**—Purification of coal gas.—J. T. McDougall. Impregnates sawdust, tanners' waste or other light material with a soluble salt of iron, decomposes the salt by an alkaline reagent whereby oxide of iron is deposited in the pores of the material which can then be used for the purpose stated above.

**292,394 and 292,395.**—Gas producers.—J. Zellweger.

**292,417.**—Apparatus for refining asphaltum for paving.—E. J. De Smedt.

The fumes and gases evolved from the heated asphaltum contained in covered melting kettles are withdrawn by means of an ejector and burned under a steam boiler.

January 29, 1884.

**292,470.**—Fertilizer.—D. R. Castleman. Ground tobacco stems and ordinary phosphates.

**292,515.**—Photometer.—T. O'C. Sloane.

*Claim 2.*—In an apparatus for determining the illuminating power of gas, a differential thermometer constructed as described, and balanced and arranged so as to indicate changes in the relative quantity of radiant heat developed by a flame of gas, and transmit such changes to a recording mechanism substantially as shown and described.

**292,540.**—Process of tinning sheet copper.—A. A. Cowles.

Protects side not intended to be tinned with silicate of soda.

**292,605.**—Art of extracting gold by means of alkaline sulphides.—C. P. Williams.

Heats the gold bearing material with carbon and an alkaline sulphate, leaches the cooled mass with water to dissolve out the sulphides from which the gold is recovered by precipitation.

**292,622.**—Apparatus for producing gas.—G. W. Billings.

**292,669.**—Process of solidifying liquid or semi-liquid fatty acids.—W. F. C. McCarty.

Improvements on Nos. 282,547 and 283,003. Obtains a product of high melting point by successively treating liquid or semi-liquid fatty acids with steam, air, nitric acid, starch, alkalies and sulphuric acid. The mixture is continuously agitated and heated and cooled at different stages of the process. The product is finally distilled in a vacuum.

**292,696.**—Apparatus for the manufacture of carbon black.—G. G. Shoemaker.

Liquid fuel is burned under rotating hollow cones kept cool by means of water distributed over their outer side.

**292,753.**—Process of making spongy lead for the manufacture of white lead.—J. K. Kessler. Passes an electric current, by means of a lead anode, through a solution of an alkaline acetate..

*February 3, 1884.*

**292,788.**—Apparatus for deoxidizing iron ores.—J. Bridgford.

**292,891.**—Process of treating fibrous rubber waste.—A. O. Bourn.

The cotton fibre is destroyed by boiling the chopped waste in a 3 or 4 per cent. solution of sulphuric acid.

**292,944.**—Desulphurizing furnace.—H. E. Parson and G. V. Northey.

**292,980.**—Soap.—C. F. Broadbent.

Consists of ordinary soap, water, hyposulphite of soda, borax and ammonia.

**293,002.**—Roasting furnace.—N. A. Foss and J. M. Gray.

**293,010.**—Building compound.—L. Haas. Furnace slag and mortar combined in suitable proportions with an additional cementing mortar made of powdered flint, sodium silicate, sand and clay.

**293,023.**—Coking furnace.—A. R. Hiltawski.

**293,045.**—Mixed Paint.—H. Little. Coal tar thinned by a light oil and wood ashes.

**293,107.**—Gas-retort furnace.—I. N. Stanley.

**293,157.**—Process of roasting and amalgamating gold and silver ores.—E. O. and C. Francke.

Consists in salting and roasting the same at a low temperature for conversion of certain sulphides into sulphates without disturbing other metallic salts, and afterward treating the same in a pulp with common salt and quicksilver, under the influence of heat and in the presence of metallic copper, whereby, through a series of reactions, the silver is reduced to a metallic state and amalgamated.

**293,207.**—Artificial stone.—R. C. Wittmann.—Carbonate or silicate of magnesia, carbonate of lime and muriatic acid, applied to pasteboard, wood, muslin, etc., and pressed.

*February 12, 1884.*

**293,335.**—Vacuum press percolator.—C. R. Knapp.

**293,344.**—Process of extracting glycerine from fatty matters.—E. F. and E. N. Michaud. Consists in placing the fatty matters, with water and a zinc preparation (known as "zinc-powder" and consisting, principally of finely divided metallic zinc and zinc oxide), and in the absence of calcareous or alkaline substances, in a closed vessel, subjecting the same to steam pressure for a sufficient time, and separating the water containing the glycerine from the resulting fatty acids.

**293,376.**—Process and apparatus for bleaching vegetable fibres, threads and fabrics.—J. B. Thompson.

First boil them in a solution of potassium or sodium cyanide, then subject them to alternate baths of a solution of chloride of lime and of carbonic acid gas in a closed vessel, and lastly passes them through a solution of triethylrosaniline and oxalic acid.

**293,409.**—Defacating saccharine liquids.—G. B. Boomer.

A train of vessels closed at the top and provided with heating mediums and so connected with adjustable overflow spouts that the clear liquid can be withdrawn from a point below the scum at the top and the sediment at the bottom.

**293,430.**—Apparatus for revivifying boneblack.—E. P. Eastwick.

The coolers under the kiln are surrounded by a casing for the purpose of confining a current of air. The heated air thereby obtained is forced by means of a blower through the wet boneblack contained in the drier placed over the kiln.

**293,560.**—Hydrocarbon furnace.—W. H. Brooks.

*February 19, 1884.*

**293,740.**—Method of purifying water.—I. S. Hyatt.

Consists in introducing into the water simultaneously with its passage to or into the filter, a substance (see next patent) which will sufficiently coagulate or separate the impurities to facilitate their arrest and removal by the filter bed, thus obviating the necessity of employing settling basins.

**293,741.**—Filtering material.—I. S. Hyatt.

*Claim.*—A filter bed, consisting essentially of an inert material and metallic iron in comminuted form thoroughly commingled.

**293,742 to 293,750 and 293,882-883.**—Filters and art of filtration.—J. W. Hyatt.

Various substances employed in different ways are claimed for mechanically retaining the impurities contained in water. Also arrangements to prevent clogging and to remove the deposited impurities without disconnecting the apparatus.

**293,782.**—Apparatus for evaporating and clarifying syrups.—D. D. Powers.

Consists in passing streams or jets of heated and ordinary air alternately through the material.

**293,827.**—Alloy and process for the manufacture of silicious copper and silicious bronze.—L. Weiller.

*Claim 1.*—Sodium bronze as a new combination of matter.

*Claim 4.*—In the manufacture of silicious bronze, the improvement consisting in adding tin and sodium together with potassium fluosilicate to the melted copper or bronze.

**293,838.**—Process and apparatus for extracting crystallized sugar from bagasse.—T. B. Yale.

Consists in subjecting the crushed saccharine material in a closed vessel to the action of steam, and then extracting the juice and dissolved crystallized sugar from the saccharine material by means of a vacuum.

**293,854.**—Apparatus for the manufacture of illuminating gas.—W. H. Douglass.

A hydrocarbon gas generator.

**293,884.**—Condenser-scrubber for gas.—C. W. Isbell.

Causes both the gas and the scrubbing liquor to pass in contact with artificially cooled surfaces.

**293,886.**—Alloy for coating metals.—J. B. Jones.

Consists of lead, tin and zinc, with metallic sodium added.

**293,909.**—Process and apparatus for preparing beer and other fermented liquids for the market.—C. Pfaundler. Consists in holding such beer or other liquid during fermentation under a controllable hydrostatic pressure and carrying off the barm which rises from the fermenting mass by a current of liquid.

**293,936.**—Amalgamator.—T. H. Becker.