

Canadian and similar petroleum, the same being composed of two or more of the oxidizing oxides in a finely divided form, substantially as and for the purposes described. 4th. The herein described new composition for removing or destroying the sulphur compounds in Canadian and similar petroleum, the same being in a finely divided form or powder, composed of lead oxide in conjunction with the oxide of a metal whose affinity for sulphur is greater at a low temperature than is the affinity of lead therefor at such temperature, substantially as and for the purposes described. 5th. The herein described new composition for removing or destroying the sulphur compounds in Canadian and similar petroleum, the same being the roasted and oxidized sulphur compounds of one or more metals of the oxidizing oxides and hydrocarbon in chemical combination or molecular union therewith, substantially as and for the purposes described. 6th. The herein described new composition for removing or destroying the sulphur compounds in Canadian and similar petroleum, the same being the roasted and oxidized sulphur compounds of one or more metals of the oxidizing oxides, in combination with a less active or inactive pulverulent substance, such as iron oxide, plaster or other refractory substance, substantially as and for the purposes described. 7th. The herein described new composition, consisting of sulphur and one or more of the metals of the oxidizing oxides, in chemical combination or molecular union with hydrocarbon, substantially as and for the purposes described. 8th. The herein described new composition, said composition being in a finely divided form or powder, the grains of which contain sulphur and one or more of the metals of the oxidizing oxides, together with hydrocarbon and containing also a less active or inactive or unsulphured refractory substance, substantially as and for the purposes described. 9th. The herein described new composition containing a sulphur compound of lead, and a metal having at a low temperature a greater affinity for sulphur than lead has at such temperature, substantially as and for the purposes described. 10th. The herein described new sulphur removing composition for purifying petroleum, consisting of a metallic oxide (such as the oxide of lead, or of copper) deposited in a finely divided or extended form on or in particles of a comminuted carrier or vehicle, substantially as and for the purposes described. 11th. The herein described new sulphur removing composition for purifying petroleum, consisting of a metallic oxide (such as the oxide of lead or of copper) deposited in a finely divided or extended form on or in particles of a comminuted carrier (such as plaster of paris or iron oxide) while subjected to the oil during the purifying process, and afterwards roasted and oxidized and reduced to a finely divided condition, substantially as and for the purposes described. 12th. The finely divided composition for purifying Canadian and similar petroleum containing in each grain or granule a compound of lead, of copper and of iron, substantially as and for the purposes described. 13th. For use in the decomposition of sulphur compound in the process of purifying Canadian and similar petroleum oils, wherein they are subjected to the action of an oxidizing oxide or oxides, a new composition of matter consisting of a powder composed of roasted, reoxidized and pulverized sedimentary residuum from such process, substantially as and for the purposes described. 14th. The hereinbefore described method of preparing a revived material for use in the process of purifying Canadian and similar petroleum oils, wherein they are subjected to the action of an oxidizing oxide or oxides, which consists in burning the sedimentary residuum of such process, (containing sulphur compounds of metal, and hydrocarbon) and exposing them to an oxidizing atmosphere, the exposure being continued after the hydrocarbon has been burned, substantially as and for the purposes described. 15th. The method hereinbefore described of preparing a material for removing or destroying the sulphur compounds in Canadian and similar petroleum by burning a sulphur compound or compounds of one or more of the oxidizing oxides, having hydrocarbon therewith, and exposing these burning compounds to an oxidizing atmosphere, the exposure being continued after the hydrocarbon has been burned off, substantially as and for the purposes described. 16th. The hereinbefore described method of preparing a material for use in the process of purifying Canadian and similar petroleum oils, which consists in combining a sulphurless refractory substance with a sulphur compound of the metal of an oxidizing oxide, and then roasting and oxidizing the same; substantially as and for the purposes described. 17th. The hereinbefore described method of preparing a revived material for use in the process of purifying Canadian and similar petroleum oils, wherein they are subjected to the action of an oxidizing oxide or oxides which consists in burning the residuary deposits of such process (containing sulphur compounds of metal, and hydrocarbon) and passing the products of such combustion together with an oxidizing atmosphere over a portion of the deposits from which the hydrocarbon has been consumed, substantially as and for the purposes described. 18th. The improvement in roasting and oxidizing sulphur compounds of lead by mixing or combining therewith a metal or compound of a metal having at a low temperature a greater affinity for sulphur than lead has, and then roasting and oxidizing the mixture or combination, substantially as described. 19th. The hereinbefore described method of oxidizing sulphur-containing metallic compounds which consists in mixing hydrocarbon therewith and then burning the mixture and subjecting it to an oxidizing atmosphere, substantially as and for the purposes described. 20th. The process of preparing a material for removing the sulphur compounds from Canadian and similar petroleum, by forming the sulphur compounds of one or more metals of the oxidizing oxides in the presence of the hydrocarbon vapors, and roasting and oxidizing these sulphur compounds, substantially as described.

No. 37,272. Purification of Petroleum.

(*Purification du pétrole.*)

The Solar Refining Company, Lima, assignees of Herman Frasch, Cleveland, both in Ohio, U.S.A., 1st September, 1891; 5 years.

Claim.—1st. The process of purifying Lima and similar petroleum of the character described, consisting in mixing the same with a metallic purifier, in divided particles, and maintaining a condition of agitation and suspension of the purifier in the oil under

treatment, substantially as and for the purposes described. 2nd. The process of purifying Lima and similar petroleum of the character described, consisting in distilling the same with a metallic purifier in divided particles, and maintaining during the distillation a condition of agitation and suspension of the purifier in the oil, substantially as and for the purposes described. 3rd. The process of purifying Lima and similar petroleum of the character described, consisting in distilling the oil when mixed with a metallic purifier in finely divided particles in excess of the amount necessary to bind the sulphur contained in the charge of oil under treatment, removing from the still at the end of the distillation a portion only of the sedimentary residuum and adding thereto an amount of metallic purifier sufficient, with the unspent purifier remaining in the sedimentary residuum, to form a new charge for the next distillation, substantially as and for the purposes described.

No. 37,273. Art of Purifying Petroleum.

(*Art de purifier le pétrole.*)

The Solar Refining Company, Lima, assignees of Herman Frasch, Cleveland, both in Ohio, U.S.A., 1st September, 1891; 5 years.

Claim.—1st. The process of preparing inodorous petroleum of the Canadian and Lima class, by treating the same in the liquid state with oxidizing agents other than arsenic, substantially as described. 2nd. The process of deodorizing petroleum, undistilled and distillate, of the Canadian and Lima class, by treating the same in the liquid state with one or more of the following oxidizing agents, to-wit, the oxides and decomposable salts of metals precipitable from their solutions by hydrogen sulphide and the highly oxidized decomposable compounds of metals and non-metals, substantially as described. 3rd. The process of deodorizing petroleum undistilled and distillate, of the Canadian and Lima class, by treating the same in the liquid state with solid oxidizing agents, substantially as described. 4th. The process of deodorizing petroleum, undistilled and distillate, of the Canadian and Lima class, by treating the same in the liquid state with solid, dry oxidizing agents, substantially as described. 5th. The process of deodorizing petroleum, undistilled and distillate, of the Canadian and Lima class, by treating the same in the liquid state, with solid anhydrous oxidizing agents, substantially as described. 6th. The process of deodorizing petroleum, undistilled and distillate, of the Canadian and Lima class, by treating the same in a liquid state with solid, dry, anhydrous oxidizing agents, substantially as described. 7th. The process of deodorizing petroleum, undistilled and distillate, by treating the same in the liquid state with non-alkaline oxidizing agents, substantially as described. 8th. The process of deodorizing petroleum, undistilled or distillate, of the Canadian and Lima class, by keeping in suspension in said liquid, for a suitable time, a finely divided mass or powder composed or comprising in solid form one or more of the oxides or decomposable salts of the metals which are precipitated from solution by hydrogen sulphide or other oxidizing agent, and afterwards separating the liquid oil from the solid residuum, substantially as described. 9th. The process of deodorizing petroleum of the Canadian and Lima class, by treating the same in the liquid state, at an elevated temperature of about 400° F., with oxidizing agents, substantially as described. 10th. The process of deodorizing petroleum of the Canadian and Lima class, by treating the same in a liquid state, at an elevated temperature of about 400° F., with one or more of the following oxidizing agents in a solid sub-divided form, to-wit, the oxides and decomposable salts of the metals which are precipitated from solution by hydrogen sulphide, and the solid highly oxidized compounds in general, substantially as described. 11th. The process of deodorizing petroleum of the Canadian and Lima class, by treating the same at an elevated temperature, in a close vessel, with agitation with oxidizing agents, substantially as described.

No. 37,274. Thill Coupling for Sleighs.

(*Armon de limonière pour traîneaux.*)

Richard Eccles, Auburn, New York, U.S.A., 1st September, 1891; 5 years.

Claim.—A thill coupling, comprising a bar vertically apertured and provided with transversely apertured and spaced ears, each extended to form a brace, one of which is curved upwardly and the other downwardly, substantially as described. 2nd. In a thill coupling, a bar having a flat top portion 13, vertically apertured at 14, and provided with the spaced collars 15, connected by the curved web 17, apertured at 18, and with the oppositely curved braces 19, and 20, projecting from the collars, substantially as herein shown and described.

No. 37,275. Draw Bar for Passenger Cars.

(*Barre d'attelage pour chars de passager.*)

David Wylie, Detroit, Michigan, U. S. A., 1st September, 1891; 5 years.

Claim.—1st. In a draw-bar, the combination of the web, the hook jointly engaged therewith, and a locking-pin constructed with an angular-shaped head extending angularly across the web at the rear of the hook, substantially as described. 2nd. In a draw-bar, the combination of a web provided with a tongue, a hook recessed to receive said tongue and jointly engaged therewith, a headed locking pin engaged in the web at the rear of said hook, and an operating lever to raise the bolt, substantially as described. 3rd. In a draw-bar, the combination of a web, a hook jointly engaged therewith and provided with a shoulder *c*, a locking-pin located in said web at the rear of said hook, and an operating lever connected with said pin, the construction and arrangement being such that when the bar is in an unlocked position said shoulder *c* will ride under the head of said bolt and support the pin in a position to permit the coupling of the hook, substantially as set forth. 4th. In a draw-bar, the combination of the web, the swinging hook, the operating lever,