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INVENTIONS PATENTED.

NOTE .- Patents are granted for 15 years. The term of years for which the fee has been paid, is given after the date of the patent.

No. 37,480. Furnace. (Fournaise.)

John Galt, Toronto, Ontario, Canada, 29th September, 1891; 5 years.

John Galt, Foronto, Ontario, Canada, 22th September, 1821; 5 years. Claim.—1st. A steam or water heating furnace consisting of sections, with means for uniting them and providing circulation of water or steam from section to section, said sections being provided with a fire-chamber in the upper part thereof, with a stratum of water above and around the same, and flues situated beneath said chambers for conducting heated products of combustion therefrom through said section to the outlet, substantially as described. 2nd. A steam or water heating furnace consisting of sections, adapted to circulate water or steam from the base to the top of each section and from section to section, said sections being provided with a fire-chamber in the upper part thereof, with a stratum of water surrounding the same, and flues situated beneath said chamber for conducting heated products of combustion therefrom through said sections to outlet at the base of the furnace, substantially as described.

No. 37,481. Means for Preventing Incrustation in Steam Boilers. (Moyen d'émpêcher les incrustations dans les chaudières à vapeur.)

John Draper, Alfred Holmgren, and John Barnes, all of Brooklyn. New York, U.S.A., and Andrew Houston Morier, of Glasgow, Scotland, 29th September, 1891; 5 years.

Claim.—1st. The hereinbefore described composition composed of the ingredients and in about the proportion set forth. 2nd. The hereinbefore described mode of coating steam boilers and tubes by first mixing with the water contained in the boiler bi-chloride of mercury and then placing therein mercury, the substances being subjected to heat and steam pressure in the boiler. 3rd. The hereinbefore described mode of coating metal surfaces with which the water and steam in a boiler come in contact, consisting of the introduction of bi-chloride of mercury and a composition of mercury and metallic sodium, the whole being subjected to heat and pressure in the boiler. 4th. The means for coating the surface of iron and steel, consisting of mercury, bi-chloride of mercury and metallic sodium, used substantially in the manner and for the purposes set forth. 5th. The combination, with water in a steam boiler, of mercury, bi-chloride of mercury, and metallic sodium or salt, the whole being subjected to heat to receive proper temperature and steam pressure, for the purpose and substantially in the manner set forth. Claim.-1st. The hereinbefore described composition composed of

No. 37,482. Process for Facilitating the Reproduction of Lithographic Pictures, Designs, etc. (Procédé pour faciliter la reproduction des images, dessins, etc., lithographiques.)

Walter H. Cottingham, Montreal, Quebec, Canada, assignee of Louis Bertling, London, England, 29th September, 1891; 5 years.

Claim.-1st. The herein described method or process of preparing Claim—lst. The herein described method or process of preparing lithographic transfers, consisting in first taking an impression from the stone upon transfer paper such as hereinabove described, and then dusting over the impression thus obtained a fine transfer powder composed essentially of the ingredients above specified. 2nd. The transfer composition composed of a mixture of two powders, one of which consists essentially of spermaceti, sperm oil and charcoal, melted together, cooled and crushed or ground, and the other of which consists essentially of resin and lamp black, or similar material melted together, cooled and crushed or ground. substantially as set forth. 3rd. The improved transfer paper consisting of printing paper, having applied thereto coatings of a strong solution of boiled starch and a coating of solution of gum arabic in which a small quantity of sugar has been dissolved, substantially as described. 4th. The improved transferink, consisting essentially of mutton suet, bee's wax white curd soap, shellae, vegetable black, middle litho varnish and spermaceti, substantially as set forth.

No. 37,483. Metal Loop for Harnesses, etc.

(Support métallique pour loupes de harnais.)

Edmund Henry Gulledge, Oakville, Ontario, Canada, 1st October, 1891; 5 years

Claim.—As an article of manufacture, a harness loop com-prising a loop at the lower and attached to a raised shoulder, or in-tegral, and to a flat-ssupporting plate, which is provided with screw or rivet holes or mallcable rivets cast upon the plate, for fastening the said article upon a harness or saddle, substantially as and for the purpose hereinbefore set forth.

No. 37,484. Die for Forging Car Coupler Hooks. (Matrice pour forger les crochets des attelages de chars.)

John Green, William L. Holman, and John McCord, all of Renovo, Pennsylvania, U.S.A., 1st October, 1891: 10 years.

Pennsylvania, U.S.A., 1st October, 1891: 10 years.

Claim.—1st. In dies for forging car coupling hooks, a lower die in two parts each having suitable cavities therein and one of said parts movable from the other in combination with an upper die, 2nd. In dies for forging car coupling hooks, a lower die in two parts having suitable cavities therein separated at an angle to the horizontal plane of the die, and one of said parts movable from the other in combination with an upper die. 3rd. In dies for forging car coupling hooks, a lower die in two separable parts each having suitable cavities therein and means for separating said parts in combination with an upper die. 4th. In dies for forging car coupling hooks, a lower die in two parts having suitable cavities, and one of said parts hinged to the other in combination with an upper die. 5th. In dies for forging car coupling hooks, a lower die in two parts having suitable cavities, and one of said parts hinged to the other in combination with suitable means for raising one of said parts to release the forging and an upper die. 6th. In dies for forging car ooupling hooks, a lower die in two parts having suitable cavities, and one of said parts hinged to the other in combination with a tripping mechanism for raising one of said parts to release the forging and an upper die. 7th. In dies for forging car coupling hooks, a lower die in two parts having suitable cavities, and an angular line of separation between said parts, a hinged joint, a lever, and a pin for raising one of said parts of the die, and an upper die. 8th. A lower die having suitable cavities therein, and an anyil on one end of the die, and an upper die. 8th. A lower die having suitable cavities therein, and an anyil an anone and a hammer surface at one end corresponding with the anvil on the lower die. 9th. A two part lower die having suitable cavities and a hammer surface at one end corresponding with the anvil on the lower die. 9th. A two part lower die having an angular wall and a conext seat on one Claim.-1st. In dies for forging car coupling hooks, a lower die in

No. 37,485. Artificial Foot. (Allonge-pied.)

John Linkert and Henry Arland, both of Hamilton, Ontario, Canada, 1st October, 1891; 5 years.

Claim.—1st. In an artificial foot, the combination of the straps F, F, with the heel piece A, and the instep piece B, as described. 2nd. In an artificial foot, the combination of the strap G, with the instep piece B, and the heel piece A, in the manner herein described, and as and for the purposes set forth. 3rd. In an artificial foot, the combination of the strap G², with the parts B, and C, as described, and as and for the purposes hereinbefore set forth. 4th. In an artificial foot, the strap G², in combination with the parts C, and D, as described, and as and for the purposes hereinbefore set forth. 5th.