SUPPLEMENT

TO THE

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Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 12th April, 1899.

COMPLETE specifications relating to the under-mentioned applications for Letters Patent have been accepted, and are open to public inspection at this office. Any person may, at any time within two months from the date of this *Gazette*, give me notice in writing of opposition to the grant of any such patent. Such notice must set forth the particular grounds of objection, and be in duplicate. A fee of 10s. is payable thereon.

No. 10619.—26th May, 1898.—GEORGE BROUGHAM HUBERT AUSTIN, of 60, Armadale Road, Armadale, near Melbourne, Victoria, Architect. Improved mechanism for assisting in the propulsion of cycles.*

Claims.—(1.) My improved mechanism for assisting in the propulsion of cycles, consisting in the various mechanical devices constructed, combined, and operating substantially as described and explained, and as illustrated in the drawings. (2.) In mechanism for assisting in the propulsion of cycles, a saddle as A, carried by a short tube as a^1, resting upon ball-bearings as a^2 within a larger tube as B, and having a cross-bar as b, passing through slots in said tube B, and a screwed cap as b^1, substantially as described and explained, and as illustrated in Fig. 1 of the drawings. (3.) In mechanism for assisting in the propulsion of cycles, a tube as B, fitting loosely within the downwardly projecting tube, as C, of the frame of the machine, and having slots as b^4, in which work rollers as b^3, removably fixed in said tube C, and either with or without guide-wheels as b^5, substantially as described and explained, and as illustrated in the drawings. (4.) In mechanism for assisting in the propulsion of cycles, a tube as B, actuated by the weight of the rider, and fitted near its lower end with a pallet or rack as B^2, engaging with studs as D^1 or cogs on a wheel as D, gearing directly or indirectly with the crank-shaft or hub of the drive-wheel, substantially as described and explained, and as illustrated in the drawings. (5.) In mechanism for assisting in the propulsion of cycles, a saddle as A, pivoted at its forward end as at A^1, and having its rear end connected to a pair of levers as A^3, fulcrumed on the saddle-support, and having their front ends connected to a tube as B, extending into a downwardly projecting tube of the frame of the machine, substantially as described and explained, and as illustrated in Figs. 13 and 14 of the drawings. (6.) In mechanism for assisting in the propulsion of cycles, a tube as B, actuated by the weight of the rider, and extending into a downwardly projecting tube, as C, of the frame of the machine, and fitted at its lower end with a piston as F, working within a short cylindrical chamber as F^1, having an inlet-valve as F^2 and outlet-valve as F^3 and pipe as F^4, substantially as described and explained, and as illustrated in Fig. 10 of the drawings. (7.) In mechanism for assisting in the propulsion of cycles, a tube or tubes as B, actuated by the weight of the rider, and extending into the downwardly projecting tubes, as CC^1, of the frame of the machine, and connected to a lever or levers as B^4, having a rack as B^2 engaging with gearing leading to the crank-shaft or hub of the drive-wheel, substantially as described and explained, and as illustrated in Figs. 15, 16, and 17 of the drawings. (8.) In mechanism for assisting in the propulsion of cycles, a tube or tubes as B, actuated by the weight of the rider, and extending into the downwardly projecting tube, as C, of the frame of the machine, and gearing at its lower end with a pinion, as D, upon a spindle carrying a quadrant rack gearing with a loose pinion upon the crank-spindle, with which it is connected through the medium of pawls or their equivalent, substantially as described and explained, and as illustrated in Figs. 18 and 19 of the drawings.

(Specification, 12s. 6d.; drawings, £1 7s.)

No. 10715.—21st June, 1898.—P. AND D. DUNCAN, LIMITED, of Christchurch, New Zealand, Implement-manufacturers. Improved levers and riding-gear for ploughs.*

Claims.—(1.) In any plough, a stud as 1, having attached to it a seat, a raising-lever, and a steering-lever, and fixed to the frame by plates and bolts or the like, substantially as and for the purposes described. (2.) In any plough, a bridle as 10, pivoted horizontally to the frame of plough, and having a chain or the like connecting it to the raising-lever, substantially as and for the purposes described. (3.) In any plough, a raising-lever pivoted on a stud—said stud being securely fixed to the plough-frame—having a lug as 18, or the like, to which a chain or other connection from the bridle shall apply the motive-power, or part thereof, for the purposes described. (4.) In any plough, the combination of a stud as 1, carrying raising- and steering-levers as 7 and 8, and seat as 4, with a bridle as 10, pivoted horizontally to the frame, and provided with a chain or the like connecting it to the raising-lever, substantially as and for the purposes described.

(Specification, 5s. 6d.; drawings, 6s.)

No. 10720.—25th June, 1898.—WILLIAM BROMILEY, Miner, and WILLIAM STRONG, Watchmaker, both of 2, Commercial Chambers, Manse Street, Dunedin, New Zealand. An improved apparatus, and composition for use with the same, for destroying moths, larvæ, and the like.*

Claims.—(1.) An apparatus for destroying moths, larvæ, and the like, comprising in combination receptacles having an inturned rim, and curved sides to encircle a tree, and strips of tin-plate secured to the tree, substantially as set forth. (2.) An apparatus for destroying moths, larvæ, and the like, comprising in combination receptacles having an inturned rim, and curved sides to encircle a tree, overlapping strips of tin-plate secured around the tree by means of a wire threaded through and around the strips, and a band surrounding the strips, and a fold of cloth, canvas, or the like between the strips and the tree, substantially as set forth. (3.) A composition for destroying moths, larvæ, and the like, consisting of horehound, hops, salt, sugar, and treacle in the proportions substantially as and for the purposes set forth. (4.) A composition for destroying moths, larvæ, and the like, prepared by boiling horehound, hops, and salt in water, afterwards adding sugar and treacle, and then allowing the composition to ferment, substantially as and for the purposes set forth. (5.) The improved apparatus for destroying moths, larvæ, and the like, consisting of parts constructed, arranged, and combined substantially as and for the purposes set forth. (6.) The improved composition for destroying moths, larvæ, and the like, consisting of ingredients substantially in the proportions specified, and prepared in the manner described.

(Specification, 5s. 6d.)

No. 10734.—29th June, 1898.—WILLIAM HENRY BRYANT, of 54, Lambton Quay, Wellington, New Zealand, Butcher. An improved music-turner.*

Claims.—(1.) In a music-turner, in combination, a slide provided with racks, pinions provided with arms, clips upon the arms, a rack upon the back of the slide, a quadrant meshing with this said rack, a toothed wheel connected by a shaft to the quadrant, a rod having a rack at both ends, a toothed wheel carried in a bracket, the shaft of this said toothed wheel projecting through the front of the piano, a crank upon the shaft, and a stirrup mounted on the crank, substantially as and for the purposes set forth. (2.) In a music-turner, in combination, a slide provided with racks, pinions provided with arms, clips upon the arms, a rack upon the back of the slide, a quadrant meshing with this said rack, a box to carry the slide, pinions and arms, arms upon the box, spring clips upon the ends of the arms to grip the outer leaves or covers of a book, a toothed wheel connected by a shaft to the quadrant, a rod having a rack at both ends, a toothed wheel carried in a bracket, the shaft of this said toothed wheel projecting through the front of the piano, a crank upon the shaft, and a stirrup mounted on the crank, substantially as and for the purposes set forth. (3.) The improved music-turner, consisting of parts constructed, arranged, and combined substantially as and for the purposes set forth.

(Specification, 7s. 6d.; drawings, 8s.)

No. 11345.—26th January, 1899.—JAMES BAIRD, of Devonport, near Auckland, New Zealand, Engineer. An improved rotary engine.*

Claims.—(1.) In a rotary engine, a disc centrally mounted on shaft, said shaft passing through cylinder slightly out of centre—that is, more to top of said cylinder than to bottom, whereby a wide annular space is formed at bottom—said disc having on its inner and outer surfaces inner and outer radial piston-arms, with upright hubs or bosses, and steam-tight pieces on ends of inner arms fitted to ends of outer arms, and having slide-blocks adjusted to upright hubs or bosses, said inner and outer arms having eye-pieces placed over shaft and adjusted to one another, with an inner hub secured to or cast with central dividing-piece, and an outer hub secured to or cast with cylinder-cover fitting closely to shaft, and between said eye-pieces and shaft, for the purpose set forth, as described, and as illustrated by the drawings. (2.) In a rotary engine, inner and outer radial piston-arms, said inner arms having their outer ends extended into upright hubs or bosses and steam-tight pieces on to which outer ends of outer arms fit and form pistons which engage bore of cylinder, said upright hubs or bosses having slide-blocks adjusted to and oscillating on them, said slide-blocks carrying said arms level with inner and outer surfaces of said disc centrally mounted on shaft, said shaft passing through cylinder slightly out of centre—that is, more to top of said cylinder than to bottom, whereby a wide annular space is formed at bottom—said inner and outer arms having eye-pieces placed over shaft and adjusted to one another, with an inner hub secured to or cast with central dividing-piece, and an outer hub secured to or cast with cylinder-cover, fitting closely to shaft, and between said eye-pieces and shaft, for the purpose set forth, as described, and as illustrated by the drawings. (3.) In a rotary engine, slide-blocks adjusted to upright hubs or bosses, and oscillating on them, said upright hubs and steam-tight pieces being extensions of inner radial piston-arms on to which outer ends of outer arms fit, and form pistons which engage bore of cylinder, said slide-blocks carrying said arms level with inner and outer surfaces of said disc, centrally mounted on shaft, said shaft passing through cylinder slightly out of centre—that is, more to top of said cylinder than to bottom, whereby a wide annular space is formed at bottom—said inner and outer arms having eye-pieces placed over shaft and adjusted to one another, with an inner hub secured to or cast with central dividing-piece, and an outer hub secured to or cast with cylinder-cover fitting closely to shaft, and between said eye-pieces and shaft, for the purpose set forth as described, and as illustrated by the drawings. (4.) In a rotary engine, an inner hub secured to or cast with central dividing-piece, and an outer hub secured to or cast with cylinder-cover, fitting closely to shaft and between eye-pieces of inner and outer radial piston-arms, said inner arms having their outer ends extended into upright hubs or bosses, and steam-tight pieces on to which outer ends of outer arms fit and form pistons which engage bore of cylinder, said upright hubs or bosses having slide-blocks adjusted to and oscillating on them, said slide-blocks carrying said arms level with inner and outer surfaces of said disc centrally mounted on shaft, said shaft passing through cylinder slightly out of centre—that is, more to top of said cylinder than to bottom, whereby a wide annular space is formed at bottom—for the purpose set forth as described, and as illustrated by the drawings. (5.) In combination in a rotary engine, a cylinder having a central dividing-piece with a hub secured to or cast with same, said hub bored to hold and holding shaft slightly out of centre—that is, more to top of said cylinder than to bottom—said shaft having a disc so centrally mounted on it and within said cylinder that a wide annular space is formed at bottom of cylinder, which said annular space receives either water, steam, compressed air, gas, elastic fluid, or any other suitable form of power which may be used to actuate pistons and said disc, said disc having on its inner and outer surfaces inner and outer radial piston-arms with upright hubs or bosses and steam-tight pieces on ends of inner arms fitted to ends of outer arms, thereby forming pistons, and having slide-blocks adjusted to upright hubs or bosses, said inner and outer arms having eye-pieces placed over shaft and adjusted to one another, with said inner hub on central dividing-piece and outer hub secured to or cast with cylinder-cover, fitting closely to shaft and between said eye-pieces and shaft, said disc having packing or steam-tight rings kept in place by springs and packing-pieces let into ends of steam-tight rings, said cylinder-cover securely fastened to cylinder and right and left ports, for the purpose set forth as described, and as illustrated by the drawings.

(Specification, 16s. 6d.; drawings, 8s. 6d.)

No. 11356.—2nd February, 1899.—WILLIAM ERNEST HUGHES, of 54, Lambton Quay, Wellington, New Zealand, Patent Agent (nominee of Egbert Moore Tingley, of Amber Club, Pittsburg, Pennsylvania, United States of America, Electrical Engineer, and Mary Woolslair Shallenberger, of Madison Street, Rochester, Pennsylvania aforesaid, executrix of Oliver Blackburn Shallenberger, deceased, joint inventor with the said Egbert Moore Tingley). Improvements in phase-adjusting, and regulating methods and means for alternating-current apparatus.

Claims.—(1.) The method of adjusting an existing difference of phase between two magnetic fields produced by two coils caused by placing an inductive resistance in series with one of the coils, which consists in shunting this coil with a non-inductive resistance, so as to still further retard the phase of the current flowing in said coil, as described. (2.) The modification of the invention wherein one of the coils is not directly connected with the main circuit, but is included in the secondary circuit of a transformer, the other of the coils having an inductive resistance in series, as described. (3.) The method of obtaining a desired difference of phase between two magnetic fields produced by two coils, which consists in energizing one of the coils from a transformer wound with two or more primary coils, the currents in said primary coils having a difference of phase, substantially as described. (4.) An electric measuring-instrument provided with the various means of securing a desired difference of phase between the two operative magnetic fields, substantially as described with reference to the drawings.

(Specification, 11s. 6d.; drawings, 3s.)

No. 11447.—14th March, 1899.—EDWARD SMETHUST, of 183, Hereford Street, Christchurch, New Zealand, Commission Agent. Improved means of securing wires in fencing standards and droppers.*

Claim.—A standard having a hole to receive a fencing-wire, a channel cut from said hole through the edge of the standard to admit the wire, and a loop threaded through the hole closing said channel against the exit of said wire, substantially as and for the purposes described and illustrated in the drawing.

(Specification, 3s.; drawings, 3s.)

No. 11465.—21st March, 1899.—HARRY PHILLIPS DAVIS, of 327, Neville Street, Pittsburg, Pennsylvania, United States of America, Electrical Engineer, and FRANK CONRAD, of 709, Whitney Avenue, Wilkinsburg, Pennsylvania aforesaid, Electrical Engineer. Improvements in electric motors and meters adapted for use with alternating currents.

Claims.—(1.) An electric motor or meter constructed and operating substantially as described. (2.) In an electric meter of the kind described, a closed circuit coil, which is acted upon inductively by the current flowing through one of the magnetizing coils so as to distort the magnetic field passing through the secondary member, and thereby cause a tendency for the secondary member to rotate sufficient to overcome the mechanical friction of the pivots.

(Specification, 10s. 6d.; drawings, £1 1s.)

No. 11466.—21st March, 1899.—BENJAMIN GARVER LAMME, of 230, Stratford Avenue, Pittsburg, Pennsylvannia, United States of America, Electrical Engineer. Improvements relating to the conversion and distribution of electric currents.

Claims.—(1.) For polyphase currents, a rotary transformer having a rotary or stationary multipolar field-magnet either without magnetizing coils or provided with coils each wound in a closed circuit or forming part of a closed circuit, and a rotary armature wound with coils, to which the polyphase current mains are connected, substantially as described. (2.) For polyphase currents, a rotary transformer having a rotary or stationary multipolar field-magnet, and a rotary armature wound with coils, the width of each coil being considerably less than the distance between the centres of the field-magnet poles, for the purpose specified. (3.) A rotary field-motor having a primary member provided with a winding, each coil of which embraces a circumferential core-space the width of which is either materially greater or materially less than that obtained by dividing the whole circumference by the number of poles, substantially as described for the purpose specified. (4.) A system of distribution in which translating-devices arranged on a three-wire or similar system are fed from the direct-current side of a rotary transformer supplied with energy from a stationary transformer or auto-transformer to a point intermediate of the terminals of which the neutral wire of the three-wire or like system is joined. (5.) The system of operating an electric motor at different speeds by reducing its counter electro-motive force substantially as described. (6.) The improved rotary transformer or rotary field-motor, constructed substantially as described with reference respectively to Figs. 1 to 4 or to Fig. 6 of the drawing. (7.) The various systems of distribution described with reference to Figs. 23 to 26 of the drawings.

(Specification, £1 16s.; drawings, £1 7s.)

No. 11480.—23rd March, 1899.—EMIL KREUSER, of Mechernich, Rhine Province, Germany, Retired Director of Royal Mines. Improvements in electro-magnetic apparatus for separating ores.

Claims.—(1.) An electro-magnetic ore-separator, consisting of two opposite revolving iron cylinders of I or I shaped section, and wound as bar magnets, the said cylinders being arranged either vertically or in an inclined position one above the other, and the polar distance between the cylinders being maintained by means of abutting distance-rings substantially as described. (2.) In an electro-magnetic ore-separator such as is referred to in the first claim, arranging the polar distance-rings so as to be changeable, in order to enable the polar distance to be varied substantially as described. (3.) In an electro-magnetic ore-separator such as is referred to in the first and second claims, utilising the said polar distance-rings as frictional gear for transmitting the rotary motion imparted to the one magnet cylinder to the other one, so that by employing distance-rings of different diameters for the two cylinders their relative speeds can be correspondingly varied, substantially as described. (4.) In an electro-magnetic ore-separator such as is referred to in the first claim, forming the polar surfaces of the upper cylinder with flutings or milling, and covering the polar surfaces of the lower cylinder with diamagnetic material in order to increase the magnetic action of the upper roller upon the ore, substantially as described. (5.) In an electro-magnetic ore-separator such as is referred to in claims 1 to 4 providing inclined shoots for receiving the separated ores, which shoots are adjustably arranged to extend to the strongest magnetic field between the cylinder magnets, substantially as described. (6.) In an electro-magnetic ore-separator such as is referred to in the preceding claims, arranging only the upper magnet cylinder to act as an electro-magnet, while the lower iron cylinder, constructed without a diamagnetic covering, is made to serve as an armature, substantially as described. (7.) In an electro-magnet ore-separator such as is referred to in the preceding claims, arranging the magnet cylinders both with end poles and with an intermediate pole, which is made of a less diameter or greater diameter than the end poles, whereby the separate polar distance-rings are dispensed with, substantially as and for the purpose described. (8.) In an electro-magnetic ore-separator operating with two magnet cylinders, increasing the useful effect of the pair of magnet cylinders by arranging them vertically or in an inclined position one above the other, the combination therewith of a diamagnetic covering for the lower cylinder poles, on to which the crushed ore is directly delivered, the upper cylinder alone serving to attract the ore, and having its polar surfaces formed with flutings or milling, while the distance between the poles of the cylinders is regulated by polar distance-rings which at the same time serve to transmit the rotary motion from the one magnet cylinder to the other, substantially as described.

(Specification, £1 3s.; drawings, £2 7s. 6d.)

No. 11485.—27th March, 1899.—PETER STEPHENSON, of Greymouth, New Zealand, Seaman. An improved fire-escape.

Claims.—(1.) The use of the upper block A, as described, to retard the motion of wire-ropes in fire-escapes. (2.) The use of the hardwood brake B, as described, to retard, control, regulate, and stop the motion of wire-ropes, especially those of small size. (3.) The use of the whole apparatus, as described, as an improved fire-escape.

(Specification, 3s. 6d.; drawings, 3s.)

No. 11486.—28th March, 1899.—FREDERICK WILLIAM MARTINO, of 107, Montgomery Road, Sharrow, Sheffield, York, England, Manufacturer, and FREDERIC STUBBS, of "Edgegate," Osborne Road, Sheffield aforesaid, Engineer. Improvements in or relating to the treatment of ores, and the precipitation of precious metals from their cyanide-solutions.

Claims.—(1.) In the treatment of ores or tailings containing the precious metals, the employment of metallic carbides which produce a hydrocarbon gas when brought into contact with water. (2.) In the treatment of ores or tailings containing the precious metals, the employment of acetylene or similar hydrocarbon gas. (3.) In the precipitation of the precious metals from their cyanide-solutions, the employment of acetylene or similar hydrocarbon gas, with or without oxygen. (4.) The precipitation of the precious metals by the addition of a metallic carbide, which produces a hydrocarbon gas when brought into contact with water, to their cyanide-solutions. (5.) The treatment of ores or tailings containing the precious metals by finely dividing the ore, mixing it with a metallic carbide, which produces a hydrocarbon gas when brought into contact with water, and moistening the mixture substantially as described.

(Specification, 5s.)

No. 11487.—28th March, 1899.—MERRELL SOULE COMPANY, a corporation organized under the laws of the State of New York, and having its principal place of business at Syracuse, New York aforesaid (assignees of William Buell Gere, of Syracuse aforesaid, Manufacturer). Improvements in vegetable powders.

Claims.—(1.) The herein-described vegetable powder or meal, consisting of cooked, steamed, or stewed green vegetable substance, combined with starch or analogous material. (2.) The herein-described vegetable powder or meal, consisting of cooked, steamed, or stewed green vegetable substance, combined with starch or analogous material and soup-stock composed of the soluble ingredients of meat. (3.) The herein-described method of preparing vegetable powder or meal, which consists in cooking, steaming, or stewing the green vegetable substance, and reducing the same to a pulp, adding starch or analogous material to the same, and drying the mixture. (4.) The herein-described method of preparing vegetable powder or meal, which consists in cooking, steaming, or stewing the green vegetable substance, and reducing the same to a pulp, adding starch or analogous material, and soup-stock composed of the soluble ingredients of meat, to the pulp, and drying the mixture.

(Specification, 11s.)

No. 11491.—29th March, 1899.—CLEMENS BARON VON BECHTOLSHEIM, of 27, Maria Theresa Strasse, Munich, Germany. Improvements in milking apparatus.

Claims.—(1.) A milking apparatus characterized by a cylinder operated pneumatically, hydraulically, or by vacuum, and provided with an automatic reversing-valve arrangement, and located between the teats, being suspended thereon by milking-devices, which are also operated pneumatically or hydraulically, and are moved up and down so as to exert at periodical intervals a pull on the teats and a pressure on the udder, with the object of enabling the milking-machine to be worked with a constant pressure in the operating-pipe, and of requiring no further support for the apparatus than that afforded by the milking-devices themselves, substantially as described. (2.) In a milking apparatus such as hereinbefore described, the arrangement of two cups, diametrically opposite one another, and attached to a piston, and two others attached to a cylinder, so that the respective pairs mutually alter their positions as regards height in such a way that the for-the-time-being-descending pair, squeezing the teats, milk the same out and exert a pull thereon, whilst the rising pair of cups are opened to allow the teats to enter therein, and exert a pressure against the udder substantially as described. (3.) In a milking apparatus such as described, the arrangement of valves or devices for producing the alteration in the conditions of pressure in the cups in such a way that on a change of movement all four cups simultaneously squeeze the teats, in order to prevent at this moment the apparatus dropping off the cow, substantially as described.

(Specification, £1; drawings, 10s. 6d.)

No. 11492.—29th March, 1899.—DAVID BUCHANAN, of 9, Clive Road, Auburn, Victoria, Mechanical Engineer. Improvements in potato-diggers.

Claims.—(1.) In a potato-digger, the combination with an inclined curved riddle, having at its low front end a mouth with a share or cutting-edge, of a roller in front of and adjustably connected relatively to the said riddle, and a winch and connections therefrom to the machine-front, all substantially as and for the purposes set forth. (2.) In a potato-digger, the combination with an inclined curved riddle of a screw-elevator within the same, having an incurved rounded entering-edge, and at its discharge end bevel-gear operated by sprocket-and-chain mechanism, whereby the said screw will, by the turning of the traction-wheels of the machine, be revolved so as to carry potatoes or the like up the riddle at a comparatively rapid rate, substantially as and for the purposes set forth. (3.) In a potato-digger, the combination with a riddle and elevating-screw, gear for rotating said screw by the forward motion of the machine, a clutch for connecting and disconnecting said gear, a roller (wheel or wheels) in front of said riddle, connections between said roller (wheel or wheels), and riddle for adjusting the cutting-depth of the latter, and a lever or winch to lift the front of the machine off the ground, all substantially as and for the purposes set forth. (4.) In a potato-digger having an inclined curved riddle having an elevating-screw, having an incurved rounded entering-edge, said screw being adapted to push potatoes up the said riddle, and dirt and haulms through the bars thereof, the combination therewith of a box or potato-receptacle S, having a door T with pivot T^1, and connections U^1 to handle U, whereby the door can be opened and the box emptied at will, and whereby the door of said box will close automatically when the lever or handle U is released, substantially as set forth.

(Specification, 10s.; drawings, 10s. 6d.)

No. 11498.—30th March, 1899.—HUMPHREY ARTHUR SALTMARSHE, of 21, Queensland Deposit Bank Chambers, Adelaide Street, Brisbane, Queensland, Mine-owner. River-bed mining apparatus.

Claims—(1.) In a river-bed mining apparatus or principle, a sloping tunnel passing beneath the river-bed, uptakes or stopes connecting said tunnel with the bed of the stream, and grizzlies or grate-bars arranged over the uptakes so that the heavier bodies, such as precious metals, will pass through the grizzlies to the tunnel as specified. (2.) In river-bed mining, a tunnel passed beneath the bed of the stream to be operated upon, stopes connecting with the said tunnel and the bed of the stream, a grizzly covering the top of the openings or stopes approximately on a level plane with the river-bed, and one or more other grates or grizzlies arranged in the framework of the stopes between the bed of the stream and the tunnel, and means for conveying the materials passed through the grizzlies to the surface of the ground at some point above the flood-mark of the stream, substantially as specified. (3.) In river-bed or placer-mining, a tunnel passing beneath the stream to be operated upon, and means for connecting with the bed of the stream, as specified; a semicircular groove, 17, arranged in the tunnel; a worm-conveyer, 18, arranged to turn in the groove, and means for operating said conveyer from the surface of the ground, as and for the purposes specified. (4.) In an apparatus or system of the kind and for the purposes described, a tunnel arranged beneath the bed of a stream to be operated upon, means for communicating with the bed of the stream, a vertical shaft connecting the outer end of the tunnel with the surface of the ground at a point above high water, and means for sealing or closing the tunnel off from the shaft by a sliding-door, all substantially as specified. (5.) In an apparatus for deep river-bed mining, a shaft and tunnel having stopes or openings transversely across the bed of a stream, in combination with a self-adjusting hoisting-bucket, 10, for hoisting the auriferous sands and gravel to the surface, as and for the purposes specified.

(Specification, 12s.; drawings, 11s.)

No. 11499.—30th March, 1899.—ARTHUR ROYSE LYSAGHT, of 10, Bligh Street, Sydney, New South Wales, Wire-netting Manufacturer. Improvements in wire-netting machines.

Claims.—(1.) In a wire-netting machine of the class set forth, the combination with a series of threaded stem-bobbins having permanent and non-permanent parts, carrying wires to be netted, of a duplex stem-bobbin carrying two mesh-wires and a reinforce or central salvage-wire, substantially as described and explained. (2.) In a wire-netting machine of the class set forth, a duplex stem-bobbin having tubes or stems such as *a*, terminals such as *b*, *c*, *d*, and *e*, grooves such as *c*1 and *e*1, holes such as *b*2 and *c*2, and half-pinions such as *b*3, *c*3, *d*3, and *e*3, substantially as described and explained, and as illustrated in the drawing. (3.) In a wire-netting machine of the class set forth, the combination and arrangement with duplex stem-bobbins, having terminals such as *c* and *e*, having grooves such as *c*1 and *e*1, of grooves such as *f*1 in sliding-frame such as *f*, hooks or catches such as *f*2, and carriers such as *c*4 and *e*4, substantially as described and explained, and as illustrated in the drawing.

(Specification, 7s.; drawings, 8s.)

No. 11500.—30th March, 1899.—LOUIS CARNEGY AULDJO, of Equitable Building, George Street, Sydney, New South Wales, Consulting Engineer. Improvements in furnaces.

Claims.—(1.) Enclosed air-spaces about a furnace, through which its supply of air circulates before it reaches the fire, as and for the purpose set forth. (2.) An air-space between the brickwork and front plate of a furnace, said front plate being provided with holes for the admission of air to said space, substantially as set forth. (3.) In a furnace, a hollow mouthpiece for furnace-doors, provided with divisions and apertures to enable air to circulate through said mouthpiece, substantially as and for the purpose set forth. (4.) The combination of a brick furnace and an outer iron casing, which form an air-space, with separate firing and cleaning doors, having hollow mouthpieces, substantially as and for the purpose set forth. (5.) The combination of a furnace, having hollow brick walls enclosing dead air, with an outer iron casing and air-supply space, substantially as described, and for the purpose set forth. (6.) The furnace as a whole, substantially as described, and shown on the drawings, and for the purpose set forth. (7.) The furnace as described in combination with a boiler or roasting-furnace, substantially as described.

(Specification, 10s. 6d.; drawings, 6s.)

No. 11503.—30th March, 1899.—FRANK CURTIS, of George Street, Dunedin, New Zealand, Manufacturing Chemist. A medicine for the cure of liver and stomach complaints.

Consists of the following ingredients: Extract of cascara, sagrada, and extract of taraxici, each 4 pints; Spanish juice, ½ oz.; essence of cajupute, ½ oz.

Claim.—The mixture of ingredients before named in the proportions stated, as a medicine for the cure of liver and stomach complaints.

(Specification, 1s. 6d.)

No. 11512.—6th April, 1899.—HUGH DUNLOP, of 43, Sloane Street, Summer Hill, New South Wales, Gentleman. Improvements in the method of top-dressing for wood blocks for streets, footpaths, and the like.

Claims.—(1.) In the construction of roadways, footpaths, and the like formations for vehicular and other traffic, the combination of wood blocks with a mixture of ingredients composed of bitumen, resin, caustic soda, Portland cement,

calcined clay, boiled linseed-oil, Stockholm tar, blue-metal screenings and sand, prepared and mixed in a manner as described. (2.) In the construction of roadways, footpaths, and the like formations for vehicular and other traffic, the combination of wood blocks with a mixture of ingredients described, and in the proportions as described and set forth.

(Specification, 4s.)

No. 11515.—6th April, 1899.—WILLIAM ERNEST HUGHES, of 54, Lambton Quay, Wellington, New Zealand, Patent Agent—nominee of the Incandescent Fire, Mantel, and Stove Company, Limited (a British joint-stock company of limited liability, duly incorporated under British laws), of 53, Victoria Street, Westminster, London, England, Manufacturers (assignees of William Henry Harvey, of 17, Old Queen Street, Westminster aforesaid, Colliery Agent). Improvements in or relating to devices or appliances for use in domestic or the like fireplaces or stoves.

Claims.—In devices or appliances such as described, and termed "incandescent fire-mantels" for use in domestic or the like fireplaces, the arrangement and combination therewith of—(1.) Adjustable means such as shown in Figs. 1 and 2 and Figs. 5 to 10, provided at each end of said fire-mantel, by which to adjust and fix the latter in the fireplace, substantially as described and illustrated in the drawings. (2.) Loops such as *c*, formed out of the wires *b* of the wirework of said fire-mantel, substantially as and for the purposes described, and illustrated in Figs. 1 and 3 of the drawings. (3.) Detachable loops or eyes such as c^x, with hooks *m* thereon to hang on the wirework *b*, substantially as and for the purposes described, and illustrated in Figs. 11 to 13 of the drawings. (4.) An adjustable horizontal bar or rod such as *y*, supported on vertical guide-rods *z*, substantially in the manner and for the purposes described, and illustrated in Figs. 14 and 15 of the drawings. (5.) Tubes or pegs provided as shown in Figs. 16 to 21, with apertures therethrough at right angles to the longitudinal access of said tubes or pegs, substantially as and for the purposes described, and as illustrated. (6.) An inverted V-shaped device, such as shown in Figs. 22 and 23, for use instead of (or in combination with) tubes *d* or pegs, substantially as and for the purposes described and illustrated. (7.) An adjustable fire-mantel with reducible or extensible side ends, constructed and arranged to act substantially in the manner and for the purposes described and illustrated in the drawings.

(Specification, 10s. 6d.; drawings, 14s.)

F. WALDEGRAVE,
Registrar.

NOTE.—The cost of transcribing the specification, and an estimate of the amount required for copying the drawings, have been inserted after the notice of each application. An order for a copy or copies should be accompanied by a post-office order or postal notes for the cost of copying.

An asterisk (*) denotes the complete specification of an invention for which a provisional specification has been already lodged.

The date of acceptance of each application is given after the number.

Provisional Specifications.

Patent Office,
Wellington, 12th April, 1899.

APPLICATIONS for Letters Patent, with provisional specifications, have been accepted as under:—

No. 11420.—2nd March, 1899.—THOMAS WHITE, of Ashley Street, Rangiora, Canterbury, New Zealand, Coachbuilder and General Blacksmith. An improved apparatus for heating rooms, conservatories, and the like.

No. 11462.—21st March, 1899.—DANIEL LEA, of Masterton Drill-hall, Masterton, New Zealand, Teacher of Gymnastics. An improved candle-extinguisher.

No. 11470.—18th March, 1899.—DAVID RANKEN SHIRREFF GALBRAITH, of Ladies' Mile, Remuera, Auckland, New Zealand, Analytical Chemist, and ALBERT ROBINS, of Queen Street, Auckland aforesaid, Merchant. An invention for the utilisation of a new source of solvent and lubricating oils.

No. 11478.—20th March, 1899.—JOHN WILLCOCKS KENAH, of Mangatoki, Hawera, New Zealand, Farmer. An improved bicycle-brake.

No. 11489.—24th March, 1899.—EWEN ALEXANDER CAMERON, of "Closeburn," Queenstown, Otago, New Zealand, Civil Engineer and Architect. An improved spark-arrester and fuel-economizer.

No. 11497.—29th March, 1899.—GEORGE WESTINGHOUSE, of Pittsburg, Pennsylvania, United States of America, Engineer. Improvements in controllers of railway-motors and the like.

No. 11502.—28th March, 1899.—ARTHUR RICHARDS, of John Street, Ponsonby, Auckland, New Zealand. An improved wire and spring suspension bottoms for couches, chairs, and wire mattresses.

No. 11505.—4th April, 1899.—GILBERT EVAN ADLARD, of 183, Hereford Street, Christchurch, New Zealand, Inventor. An improved lamp for employment upon cycles and other vehicles.

No. 11506.—4th April, 1899.—CHRISTIAN MENLI, of Eltham, New Zealand, Saddler. Improvements in horse-covers.

No. 11513.—6th April, 1899.—JAMES ASHDOWN, of 22, Clarence Street, Prahran, Victoria, Plumber. Apparatus for removing solids, and recovering fats or oils, from the waste water of sinks, or from other waste liquids.

F. WALDEGRAVE,
Registrar.

NOTE.—Provisional specifications cannot be inspected, or their contents made known by this office in any way, until the complete specifications in connection therewith have been accepted.

The date of acceptance of each application is given after the number.

Letters Patent sealed.

LIST of Letters Patent sealed from the 3rd March, 1899, to the 12th April, 1899, inclusive:—

No. 10214.—E. Gibbons, washboard.
No. 10232.—J. H. Ormond and T. Ritchie, filter.
No. 10236.—W. and W. H. Cutten, winch-clutch.
No. 10238.—W. H. and W. Cutten, winch-driving gear.
No. 10397.—J. Hudson and F. Cooper, railway-switch.
No. 10412.—J. Anderson, boiler-flange.
No. 10929.—A. Sell, loading apparatus.
No. 11013.—W. E. Hughes, fuel (The Petolite Fuel Syndicate, Limited—J. W. Leadbeater).
No. 11054.—J. H. Moore, bottle and seal (R. A. McWilliams—C. W. Davison).
No. 11056.—The Astral Incandescent Lighting Company, Limited, manufacturing incandescible subjects (J. L. Schmidt and H. Caspers).
No. 11126.—Wong Young Wah, nozzle-fastener.
No. 11137.—W. J. Thompson, cycle-driving mechanism.
No. 11143.—W. Jamieson, separating ores from gangue.
No. 11166.—R. C. Humphreys, bench-cramp.
No. 11176.—A. Peters, primary battery.
No. 11178.—M. Weber, stamper-battery.
No. 11179.—J. J. Shuttleworth, bottle-stopper.
No. 11198.—T. H. and M. B. Dodd, hermetically sealing jars, &c.
No. 11201.—M. M. J. O. O'Conor, dredging apparatus.
No. 11206.—A. Melchior, machine sheep-shears.
No. 11207.—A. Melchior, sharpening cutters of shearing-machine.
No. 11217.—U. Dudley, clip.
No. 11218.—W. Jamieson, separating ore from gangue.
No. 11219.—The Smelting Corporation, Limited, recovery of zinc from slags, &c. (H. E. Fry and R. Addie).
No. 11248.—H. E. D'Albites, medicated aperient edible.

F. WALDEGRAVE,
Registrar.

Letters Patent on which Fees have been paid.

[NOTE.—The dates are those of the payments.]

SECOND-TERM FEES.

NO. 7539.—H. C. Trollope, foot-rot cure (W. A. Graham). 6th April, 1899.
No. 7696.—The Diamond Match Company, making wax matches. 5th April, 1899.

THIRD-TERM FEES.

Nil.

F. WALDEGRAVE,
Registrar.

Subsequent Proprietors of Letters Patent registered.

[NOTE.—The name of the patentee is given in brackets; the date is that of registration.]

NO. 9784.—New Industries and Finance, Limited, of No. 4, Queen Victoria Street, London, England, tires. [The Beebe Patent Syndicate.] 28th March, 1899.
No. 9935.—George Walker, of Mahia, Hawke's Bay, New Zealand, Sheep-farmer, seat for sewing-machines. [G. Hamlin.] *Half-share.* 8th April, 1899.
No. 11067.—The Non-intoxicant Beverage Company, of Dobbs Ferry, Westchester, New York, United States of America, beverage. [E. Uhlmann.] 11th April, 1899.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent lapsed.

LIST of applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 30th March, 1899, to the 12th April, 1899, inclusive:—

No. 9960.—J. Smaill, windmill.

No. 9968.—H. F. W. Way, respirator for use in dry crushing.*

No. 9969.—E. L. Clark, saw-frame.

No. 9979.—S. Manning and T. G. Russell, conserving rivers.

No. 10000.—T. Goodwin, balance for vehicles.

* Omitted from previous *Gazette*.

F. WALDEGRAVE,
Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of fees from the 30th March, 1899, to the 12th April, 1899, inclusive:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 7355.—E. R. Groves, sluicing-race.

No. 7358.—E. A. Whitehead and W. P. MacGregor, machine sheep-shears.

No. 7359.—J. Bear, advertising booklet and envelope combined.

No. 7362.—A. Mohovich, anchor.

No. 7368.—B. Böggild, refrigerator.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

Nil.

F. WALDEGRAVE,
Registrar.

Designs registered.

DESIGNS have been registered in the following names on the dates mentioned:—

No. 101.—Charles Kingston Welch, of Park House, Coventry, England, Engineer; Class 1; 29th March, 1899.

No. 102.—Charles Kingston Welch, of Park House, Coventry, England, Engineer; Class 3; 29th March, 1899.

No. 103.—Charles Kingston Welch, of Park House, Coventry, England, Engineer; Class 3; 29th March, 1899.

No. 104.—William Ewart Gladstone, of Tay Street, Invercargill, New Zealand, Lithographic Artist and Engraver; Class 5; 10th February, 1899.

F. WALDEGRAVE,
Registrar.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, 12th April, 1899.

APPLICATIONS for registration of the following trade marks have been received. Notice of opposition to the registration of any of these applications may be lodged at this office within two months of the date of this *Gazette*. Such notice must be in duplicate, and accompanied by a fee of £1.

No. of application: 2624.

Date: 16th March, 1899.

TRADE MARK.

NAME.

GRIMBLE AND CO., LIMITED, of 31, Cumberland Market, Regent Park, London, England, Vinegar-brewers.

No. of class: 42.

Description of goods: Vinegar, pickles, sauces, and other substances used as food or as ingredients in food.

No. of application: 2628.

Date: 24th March, 1899.

TRADE MARK.

The word

BAAWOOL.

NAME.

ALBERT EDWARD USHERWOOD, of Dunedin, New Zealand, Soap-maker.

No. of class: 47.

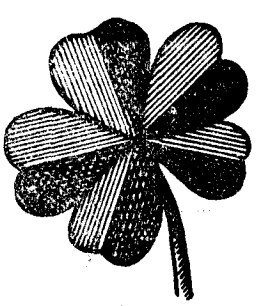
Description of goods: Detergents used for washing and cleansing wool.

No. of application: 2632.

Date: 7th April, 1899.

TRADE MARK.

CLOVER



NAME.

J. BARTRAM AND SON, of 19, King Street, Melbourne, Victoria, Merchants.

No. of class: 42.

Description of goods: Carcases of meat, poultry, game, and rabbits.

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 30th March, 1899, to the 12th April, 1899, inclusive:—

No. 1997; 2424.—W. Webber; Class 3. (*Gazette* No. 88, of the 8th December, 1898.)

No. 1998; 2433.—Vuillard and Strauss; Class 50. (*Gazette* No. 6, of the 19th January, 1899.)

No. 1999; 2485.—H. M. Smeeton; Class 3. (*Gazette* No. 75, of the 13th October, 1898.)

No. 2000; 2486.—H. M. Smeeton; Class 39. (*Gazette* No. 75, of the 13th October, 1898.)

No. 2001; 2487.—H. M. Smeeton; Class 42. (*Gazette* No. 75, of the 13th October, 1898.)

No. 2002; 2488.—H. M. Smeeton; Class 47. (*Gazette* No. 75, of the 13th October, 1898.)

No. 2003; 2489.—H. M. Smeeton; Class 48. (*Gazette* No. 75, of the 13th October, 1898.)

No. 2004; 2497.—W. M. Storey; Class 23. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2005; 2517.—A. and J. McFarlane; Class 42. (*Gazette* No. 78, of the 27th October, 1898.)

No. 2006; 2543.—Haig and Haig, Limited; Class 43. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2007; 2544.—Haig and Haig, Limited; Class 43. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2008; 2545.—Vinolia Company, Limited; Class 3. (*Gazette* No. 92, of the 20th December, 1898.)

No. 2009; 2546.—Vinolia Company, Limited; Class 48. (*Gazette* No. 92, of the 20th December, 1898.)

No. 2010; 2549.—A. Needham, jun.; Class 3. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2011; 2553.—Vereinigte Pinsel Fabriken; Class 50. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2012; 2554.—T. F. Firth and Sons, Limited; Class 35. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2013; 2555.—T. F. Firth and Sons, Limited; Class 36. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2014; 2556.—T. F. Firth and Sons, Limited; Class 50. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2015; 2568.—J. and R. Morley; Class 38. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2016; 2570.—J. and R. Morley; Class 38. (*Gazette* No. 2, of the 5th January, 1899.)

No. 2017; 2571.—J. and R. Morley; Class 38. (*Gazette* No. 6, of the 19th January, 1899.)

No. 2018; 2592.—The Dunlop Pneumatic Tire Company, Limited; Class 40. (*Gazette* No. 6, of the 19th January, 1899.)

No. 2019; 2595.—The Banks Peninsula Canning Company; Class 42. (*Gazette* No. 6, of the 19th January, 1899.)

No. 2020; 2365.—M. L. Squire; Class 3. (*Gazette* No. 39, of the 26th May, 1898.)

No. 2021; 2593.—J. F. Wilson; Class 42. (*Gazette* No. 6, of the 19th January, 1899.)

F. WALDEGRAVE,
Registrar.

Application for Registration of Trade Mark withdrawn.

THE under-mentioned application for registration of trade mark has been withdrawn:—

No. 2566.—H. S. Chipman. (*Gazette* No. 2, of the 5th January, 1899.)

F. WALDEGRAVE,
Registrar.

COPIES of "The Patents, Designs, and Trade Marks Act, 1889," with Regulations thereunder, and printed forms of application and specification, can be obtained from the Patent Office, the Government Printer, Local Patent Offices, or Money-order Offices.

Local Patent Offices for the reception of applications for Letters Patent have been established at the following places: Auckland, Thames, New Plymouth, Wanganui, Gisborne, Napier, Blenheim, Westport, Greymouth, Hokitika, Christchurch, Ashburton, Timaru, Oamaru, Dunedin, Queenstown, Lawrence, and Invercargill. In every case the office is at the Courthouse.

Specifications of all Patents and Letters of Registration applied for in the colony can be inspected at the Patent Office, and particulars of Patents, &c., granted in England, the United States, Canada, and the Australian Colonies can be seen at the Patent Office Library, Wellington.

The following publications of this office can be had from the Government Printer:—

1. Printed Specifications to the end of the year 1879.

2. Annual Lists of Letters Patent and Letters of Registration applied for, and Particulars of Applications and Patents lapsed from 1880 to 1888, inclusive.

3. Annual Reports of the Registrar, containing list of Letters Patent, nature of Letters Patent, &c., applied for during the years 1889 to 1897, inclusive.

The Patent Office Supplement to the *New Zealand Gazette* is published fortnightly, and contains all notices required by law to be gazetted concerning Patents and Trade Marks. It also contains particulars of lapsed applications for Patents and of expired Letters Patent, and other information useful to inventors, manufacturers, and others. This Supplement is issued free to subscribers to the *Gazette*, and to others on payment of a special subscription of 10s. per annum, payable in advance to the Government Printer.

By Authority: JOHN MACKAY, Government Printer, Wellington.