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Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 29th August, 1900.

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. 12077.—13th October, 1899.—CHARLES LEGGE, of 31, Featherston Street, Wellington, New Zealand, Agent. An improved cigarette-case.*

Claim.—An improved cigarette-case, consisting of a single piece of cardboard, or other suitable material, having its edges indented or cut and curled or curved over so that three divided sections are formed, which are folded into each other to form a cigarette-case, substantially as illustrated and described and set forth.

(Specification, 2s.; drawings, 3s.)

No. 12180.—16th November, 1899.—CHARLES TANDY, of Taranaki Street, Wellington, New Zealand, Coachbuilder. An improved racing-plate or horse-shoe.*

Claim.—In horse-shoes, forming the under-side of the shoe with a dovetailed channel or groove into which is inserted a strip of rubber or other suitable elastic material, such strip of rubber being gripped and held within the dovetailed channel by the sides of the channel, as described, and as illustrated in the sheet of drawings.

(Specification, 1s. 9d.; drawings, 5s. 6d.)

No. 12395.—16th February, 1900.—WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of Ernest Rowland Hill, of 814, Maple Avenue, Wilkinsburg, Pennsylvania, United States of America, Electrical Engineer). Improvements in the electric lighting of railway vehicles.*

Claims.—(1.) Railway vehicles lighted electrically from a three-wire or similar system, and provided with two current-collectors, between which and the neutral conductor two sets of lamps are severally connected, the collectors being arranged to severally engage one or both of the positive or negative conductors, for the purpose specified. (2.) In an electric railway embodying continuous neutral contact conductors and interrupted positive and negative contact conductors, a car or train having two independent current-collectors, each of which spans a less space but both of which combined span a greater space than that between adjacent ends of positive and negative contact conductors, so that in every position of the car at least one of such collectors shall be in engagement with either a positive or a negative conductor for the purpose of supplying current to the car-lamps or to propelling motors, or both, substantially as described. (3.) The systems of supplying electric energy to cars or trains substantially as described with reference to Fig. 1 or to Fig. 2 of the drawings.

(Specification, 5s.; drawings, 3s.)

No. 12819.—27th July, 1900.—PHILIP PALMER, of Dunedin, New Zealand, Factory-manager. An improved appliance for cutting pockets, angle, circular, or straight, in cloth or other fabric.

Description.—The invention is a tool to be used for cutting pocket-mouths, or openings, in cloth or other fabrics. The tool is variously shaped to make the different cuts required, and may be worked either by hand or by machine-power. Figs, 5, 6, 7, 8 on the diagrams show the tool to be worked by hand-power. The appliance in this case consists of a handle with a cutting-blade at one end (in the same way as a chisel is fastened to its handle), the cutting-edge being at the extremity of the blade. The cut is made by pressing the cutting-edge through the material by means of the handle, or the handle may be struck by a hammer or mallet to drive the edge through the fabric. The blades and cutting-edges are made of various shapes to suit the cuts required to be made in forming the pocket-holes. In the case of welt-pockets, separate tools may be used for making the opposite sides of the opening, or these may be joined together with an adjustable screw, as in Fig. 1, so that the pocket-hole can be cut and made of any required length in one operation, the tool being driven through the fabric in the manner above

ERRATUM.—In Supplement to *New Zealand Gazette*, No. 73, of the 16th August, 1900, in Trade Mark Application No. 3078, *for* "Moses Moyes Arnold," *read* "Moses Noyes Arnold."

described. Similarly, in the case of flap pockets, two tools, as in Fig. 3, may be joined with an adjustable screw for making the cut of the length required, in one operation. Figs. 1 and 3 represent tools to be used in a power press, and are formed with angle blades having cutting-edges at the end; they also have a width-regulator in the centre, to regulate the width of the cut in the fabric, and a shank at the top to fix them into the socket of a power press. Figs. 2 and 4 represent cuts made in fabric by tools shown in Figs. 1, 3, 5, 6, 7, and 8. The tool as shown in Figs. 5, 6, 7, and 8 is intended to be used in cutting single or small quantities of pocket-holes; the tool as shown in Figs. 1 and 3 is intended to be used in cutting unlimited numbers of pocket-holes at one time. The knife or cutter may be made of any suitable material.

Claim.—The use of an improved appliance, as hereinbefore described, for cutting pocket-holes or mouths in cloth or other fabric, of the width, length, and shape required for making up.

(Specification, 1s. 9d.; drawings, 3s.)

No. 12848.—4th August, 1900.—Ross and Glendining (Limited), of Dunedin, New Zealand, Merchants (assignees of David Nable, of 80, Castlereagh Street, Redfern, New South Wales). Improvements in detachable coat-adjustments.

Claims.—(1.) In a coat-adjustment, the combination of a spring such as described with a pin such as B, of the nature and for the purpose set forth. (2.) In a coat-adjustment, the combination of a spring such as described with a pin such as B, with two or more teeth such as D, D, of the nature and for the purpose set forth. (3.) A coat-adjustment consisting of a spring with hooked ends or with hooked pins attached to the ends thereof, of the nature and for the purpose set forth.

(Specification, 2s. 3d.; drawings, 3s.)

No. 12856.—9th August, 1900.—George William Penney, of East Gore, New Zealand, Fellmonger. A turnip shawer and lifter.

Claim.—A turnip shawer and lifter having two cutting-edges to the tool at right angles inside and outside, and being attached to a handle, substantially as or for the purposes described.

(Specification, 1s. 3d.; drawings, 3s.)

No. 12864.—13th August, 1900.—Frederick John Corbett, of 11, Portland Place, South Yarra, Victoria, Gentleman. An improved apparatus for manufacturing lead-carbonate—$PbCO_3$ or $2PbCO_3+PbH_2O_2$ (white-lead).

Claims.—(1.) In an improved apparatus for manufacturing lead-carbonate—$PbCO_3$ or $2PbCO_3+PbH_2O_2$ (white-lead)—a solvent-fluid reservoir, a litharge-hopper, and a carbonating-chamber having an agitator therein, in combination with settling-cylinders having siphon floats to carry off the liquid through a distilling-coil and pump into a lower solvent-fluid reservoir, all as and for the purposes described, and as illustrated in the drawings. (2.) In an improved apparatus for manufacturing lead-carbonate—$PbCO_3$ or $2PbCO_3+PbH_2O_2$ (white-lead)—a solvent-fluid reservoir and a litharge-hopper from which measured quantities of their contents are liberated into a carbonating-chamber, said carbonating-chamber having an agitator therein, and a carbonic acid-gas admission-hole, in combination with settling-cylinders and a heated vacuum pan, all as and for the purposes described, and as illustrated in the drawings. (3.) An improved apparatus for manufacturing lead-carbonate—$PbCO_3$ or $2PbCO_3+PbH_2O_2$ (white-lead)—consisting of an upper solvent-fluid reservoir fed by a pump from a lower reservoir and replenished as described, a litharge-hopper, means for regulating discharges from the upper fluid-reservoir and litharge-hopper into a carbonating-chamber into which carbonic acid is admitted and in which is an agitator, settling-cylinders having floats and siphon pipes leading into a distilling-coil, a heated vacuum pan, with an agitator therein, and connected to a vacuum pump and to a distilling-coil, a water vessel or seal connected by an inverted U-shaped pipe to the lower solvent-fluid reservoir, all as and for the purposes described, and as illustrated in the drawings.

(Specification, 4s. 6d.; drawings, 13s.)

No. 12865.—13th August, 1900.—Axel Petersen, of Hellerup, 7, Copenhagen, Denmark, Commercial Clerk. Improvements in locks.

Claims.—(1.) In locks in which the bolt is provided with a rack gearing into a cog-wheel that may be turned by the pushing-in or withdrawing of a key, the arrangement that the lock-cylinder, into which the key is inserted, is made to turn, and is provided on its side partly with an open slit and partly with an arm actuated by a spring, which arm, when the lock is closed, catches into a notch in the spindle of the gear-wheel whereby such a position is given to the cylinder that the key gets disengaged from a cog-wheel fixed upon the spindle and provided with teeth corresponding with those on a rack on the side of the key. (2.) The cylinder indicated in claim 1, having a notch *s* in the lower end of the cylinder in combination with a spring *v* in the case so placed that it catches into the said notch when the cylinder takes up a suitable position in which its slit is not in line with the cog-wheel. (3.) The combination with the lock described in claim 1 of one or several springs *w* placed in such a manner that they have a tendency to pull out the lock in order to render difficult the picking of the lock by the introduction into the key-hole of a crooked instrument. (4.) In connection with the one or several springs *w*, indicated in claim 3, the arrangement on the bolt *b* of a lug s^1 with a notch *t*, in combination with a disc *u* placed upon the spindle *f* so that the disc may fill up the notch *t* when the bolt is drawn in, all for the purpose of automatically keeping the bolt in the drawn-in position. (5.) The spindle *f*, having a flattening on the one side of the spindle, in combination with a spring *v* on the casing, which spring may rest upon the flattening and thus prevent the turning of the spindle when the bolt is drawn in.

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

No. 12866.—13th August, 1900.—Arthur Percival Hall, of Coraki, Richmond River, New South Wales, Dairy-manager. Improved apparatus for pasteurising cream, milk, and other liquids.

Claims.—(1.) Improved apparatus in which cream, milk, and other liquids to be pasteurised flow through a series of comparatively very small and preferably very narrow tubes surrounded by heated fluid such as water, substantially as described and explained. (2.) Improved apparatus for pasteurising cream, milk, and other liquids, substantially as described and explained, and as illustrated in the drawing.

(Specification, 3s.; drawings, 8s.)

No. 12871.—14th August, 1900.—John Thomas, of Queen Victoria Markets, Builder, and George W. Bell, of Market Place, Gentleman, both of Sydney, New South Wales. An improved computing-machine.

Claim.—The combination in a computing-apparatus of the drum A, revolving in a case provided with slotted apertures D and F, with the quantity bar B and the sliding indicator C.

(Specification, 2s.; drawings, 3s.)

No. 12873. — 16th August, 1900. — Charles Dahl, of Palmerston North, New Zealand, Importer and Manufacturer (nominee of Hans Vilhelm Christensen, of Copenhagen, Denmark, Wholesale Manufacturer). A new and improved strainer for milk and other liquids, with loose bottom.

Claim.—In strainers for milk and other liquids, the combination of a frame, a gauge or sieve, and a spring wire, substantially as described.

(Specification, 2s.; drawings, 3s.)

No. 12880.—17th August, 1900.—John Thomas Moate, of King William Street, Adelaide, South Australia, Insurance Agent. An improvement in book-leaves.

Claims.—(1.) An improvement in book-leaves consisting of a recess cut or otherwise formed in the edge or end of each leaf, the said recesses being arranged so that the opening formed by each recess lies over a solid or uncut portion of the succeeding leaf, substantially as described and illustrated, and for the purposes set forth. (2.) An improvement in book-leaves consisting of recesses cut or otherwise formed in the leaves as above claimed, a portion of each leaf being packed or strengthened by the addition of plates of paper corresponding in size and shape and position with the recesses first-mentioned, and arranged to fit into the same.

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

No. 12881.—17th August, 1900.—Bramah Joseph Diplock, of 53, Ashley Gardens, Westminster, Middlesex, England, Engineer. Improvements in traction-engines and other vehicles.

Claims.—(1.) A vehicle which is supported by a rail pivoted to it in such a manner that it is free to oscillate, the rail being supported by rollers pivoted to feet carried by

the vehicle-body, and which are placed successively on the ground. (2.) In apparatus such as is referred to in claim 1, allowing the rollers to move radially to the axle, and interposing springs between the body and the rail. (3.) In apparatus such as is referred to in claim 2, the employment of a lever pivoted to the body, and on which the springs act. (4.) The combination of parts interposed between the rollers and body, substantially as described, and illustrated in the drawings. (5.) In a foot for supporting a vehicle, the combination of a box, a block free to move inside the box, a spoke, and a universal joint connecting the spoke to the block. (6.) Traction-engines and other vehicles substantially as described, and illustrated in the drawings.

(Specification, 4s. 6d.; drawings, £1 1s.)

No. 12882.—17th August, 1900.—Samuel Marion Lissau, of 857, North Forty-first Street, Philadelphia, Pennsylvania, United States of America, Gentleman. Improvement in process and apparatus for concentrating ores anhydrously.

Claims.—(1.) The described process of anhydrously concentrating comminuted material containing precious metal, consisting in agitating a mass of said material, forming strata of its particles in accordance with the specific gravity thereof, retaining the concentrated product at the bottom of said mass, removing the lighter waste material in a dry condition from the upper strata of the agitated mass, through the latter and beneath the concentrated product retained at the bottom thereof, and discharging said waste material exterior to said mass, substantially as set forth. (2.) The described process of anhydrously concentrating comminuted material containing precious metal, consisting in continuously agitating a mass of said material, forming strata of its particles in accordance with the specific gravity thereof, retaining the concentrated product at the bottom of said mass, maintaining a layer of dry waste material above the concentrated product by supplying raw material to said mass during its agitation, continuously removing the lighter waste material, in a dry condition, from the upper strata of the agitated mass, through the latter, and beneath the concentrated product retained at the bottom thereof, and discharging said waste material exterior to said mass, substantially as set forth. (3.) In an apparatus for anhydrously concentrating comminuted material containing precious metal, the combination of a drum, means for rotating the same, and means within the drum for agitating and stratifying the material during rotation, said means being adapted by rotation of the drum to catch and deliver the material of the upper strata to a discharge-chute within the drum, substantially as set forth. (4.) In an apparatus for anhydrously concentrating comminuted material containing precious metal, the combination with a drum of means for rotating the drum, means arranged to deliver said comminuted material in a dry condition to said drum during the operation of the latter, means within the drum for agitating and stratifying the material during rotation, said means being arranged to remove the lighter waste material, in a dry condition, from the upper strata of said mass, through the latter, and beneath the concentrated product retained at the bottom thereof, and means to discharge said waste material from said drum, substantially as set forth.

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

No. 12883.—17th August, 1900.—Absalom Yager, of Sydney, New South Wales, Traveller. Improvements in whippletrees and horse-draught gear for common road vehicles and agricultural implements and machinery.

Claims.—(1.) Whippletree draught gear, comprising a splinter-bar or a balance-bar and two swingle-bars, whereof said swingle-bars are capable of attachment to said splinter-bar or balance-bar at their middle points, or at points between their middles and ends, when used in a two-horse gear or a three-horse gear respectively, substantially as described. (2.) A whippletree draught gear for three horses wherein the traces for all three horses are carried by two swingle-bars, which swingle-bars are hung to a balance-bar or a splinter-bar each at a point approximately one-third of its length from its inner end, substantially as described. (3.) In a whippletree draught gear for three horses, wherein the draught is taken on two swingle-bars to which the traces are directly fastened, said swingle-bars being hung to a balance-bar or a splinter-bar, rollers, bushed pins, or other bearings on the inner ends of the swingle-bars, around which said rollers, bushed pins, or bearings the traces, or attachments connecting the trace-ends, are reeved and permitted to run freely for the purpose of equalising the draught as between the three horses, substantially as described. (4.) A swingle-bar for convertible two- and three-horse draught gear, having two places of attachment for connecting it to a balance-bar or splinter-bar, said places of attachment being made one at the middle of the bar and the other distant approximately one-third the length of the bar from one of its ends, substantially as described. (5.) Convertible two- and three-horse draught gear, having only two swingle-bars, wherein, by changing the points of attachment of said swingle-bars, the same are positioned to receive the traces of two or three horses respectively, and to balance the draught of said horses at said points of attachment, substantially as described. (6.) In whippletree horse-draught gear, the combination of a splinter-bar or a balance-bar, having two points of attachment at either end to carry the swingle-bars couplings, and two swingle-bars each having two points of attachment adapted to connect with said couplings, one of such swingle-bar attachmeats being in the centre of the bar and the other at a point approximately one-third the length of the bar from one of its ends, substantially as described.

(Specification, 5s. 6d.; drawings, 8s.)

No. 12886.—17th August, 1900.—Edward Waters, Jun., a member of the firm of Edward Waters and Son, of 131, William Street, Melbourne, Victoria, Patent Agent (nominee of Spiritine Limited, of 5, Carteret Street, Westminster, England, Manufacturers, assignees of Bernard Hoffmann, of 23, Le Peletier, Paris, France, Engineer). Improvements in fuel for spirit-stoves, and in the method of making the same.

Claims.—(1.) An improved fuel, consisting of alcohol or the like, occluded in a soap-like mixture of stearine and an alkali, substantially as described. (2.) An improved fuel, consisting of alcohol or the like, occluded in a soap-like mixture of stearine and other animal or vegetable fatty matter and an alkali, substantially as described. (3.) The method of manufacturing an improved fuel consisting in subjecting alcohol or the like, stearine and other animal and [or] vegetable fatty matter, and an alkali to heat, and agitating same, substantially as described.

(Specification, 2s.)

No. 12895.—28th August, 1900.—Thomas Bell, of Ellerslie, near Auckland, New Zealand, Merchant. Am improvement in packing starch.

Claim.—Packing starch in the form of a powder, substantially as described.

(Specification, 1s.)

No. 12896.—22nd August, 1900.—John Walker Newall, of Forest Hall, Ongar, Essex, England, Engineer. An improvement in machines for cutting hair and wool.

Claims.—In machines for cutting hair and wool: (1.) The improved pin and bearings for supporting the vibrating lever carrying the cutter of such machines, constructed so that the side-thrusts are taken by portions of the pivot-pin, which are of full diameter for a short distance above and below the eye of the lever, and which work in bearings in the shear-body, while the portions of the pin above and below the parts of full diameter are reduced, and the thrust at right angles to the side-thrusts is taken up by blocks mounted in the bearings of the pin, and having V-shaped grooves to permit the pin to vibrate to the necessary extent, substantially as described. (2.) Forming the outsides of the blocks referred to in the preceding claim slightly rounded in the direction of their length, so as to enable them to adjust themselves to the bearing-edges of the pivot, substantially as described. (3.) The improved construction of pin and bearings for the vibrating lever carrying the cutter, constructed and operating substantially as specified.

(Specification, 2s. 3d.; drawings, 3s.)

No. 12897.—22nd August, 1900.—Elmer Gates, of Chevy Chase, Maryland, United States of America, Scientist. Improvements relating to the separation of mixed granular or pulverised substances.

Claims.—(1.) The method of separating diamagnetic particles from a mixture containing them which consists in feeding the mixture into a relatively intense part of a magnetic field, continuing it in and subjecting it to the action of the magnetic field until the diamagnetic particles to be separated have gradually moved out from the mixture into a relatively weak part of the field, and then collecting said particles separately as heads, substantially as described. (2.) The method of diamagnetic separation which consists in introducing the mixture into a zone of median magnetic intensity, agitating the mixture while detained in said zone until the particles of varying susceptibility move in opposite directions, and collecting the separated particles, and conducting them away separately, substantially as described. (3.) The method of diamagnetic separation which consists in feeding the mixture on to a support midway between the

boundaries of a belt or zone of magnetic intensity, agitating the support until the substances of different susceptibility move laterally in opposite directions across said belt or zone, and collecting the separated substances at different points, and conducting them away separately, substantially as described.

(Specification, 12s.; drawings, 10s. 6d.)

No. 12898.—22nd August, 1900.—ELMER GATES, of Chevy Chase, Maryland, United States of America, Scientist. Improvements relating to the separation of mixed granular or pulverised substances.

Claims.—(1.) The method of separating from a mixture particles of relatively greater electrostatic capacity than the remainder which consists in passing the mixture through a field of convective discharge of static electricity, thereby charging said mixture electrostatically, and diverting the particles of greater electrostatic capacity by causing the electrified mixture to pass through another field of convective discharge of static electricity, the direction of whose lines of force intersects that of the first, substantially as described. (2.) The method of separating from a mixture particles of relatively greater electrostatic capacity than the remainder which consists in passing the mixture through a field of convective discharge of static electricity, thereby charging said mixture electrostatically, and diverting the particles of greater electrostatic capacity by causing the electrified mixture to pass through another field of convective discharge of static electricity, the direction of whose lines of force intersects that of the first, and whose discharge terminal is located midway between the terminals of the first, substantially as described. (3.) The method of separating diamagnetic particles from a mixture containing them which consists in feeding the mixture into a relatively intense part of a magnetic field, simultaneously charging the mixture electrostatically, and subjecting the electrostatically charged mixture to the action of the magnetic field until the diamagnetic particles to be separated have gradually moved out from the mixture into a relatively weak part of the field, and then collecting said particles as heads, substantially as described.

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

No. 12899.—22nd August, 1900.—ELMER GATES, of Chevy Chase, Maryland, United States of America, Scientist. Improvements relating to the separation of mixed granular or pulverised substances.

Claim.—The method of separating from a mixture particles of conductive material which consists in passing an electric current through a moving body of the mixture, and diverting the conducting particles by causing the moving mixture to pass through an auxiliary field of force, substantially as described.

(Specification, 3s. 3d.; drawings, 5s. 6d.)

No. 12900.—22nd August, 1900.—ISAAC DAVIS, of 37, Manor Road, Brockley, Kent, England, Engineer. Improvements in means or apparatus for heating and purifying or filtering feed-water and the like.

Extract from Specification.—It is well known that solubility of deposits in feed-waters and the like disappears with increase of temperature to a point when the deposits become insoluble and mechanically mixed with the water and settle, in which state they can be separated; and the present invention is designed with the object of producing a convenient apparatus for effecting water purifying or filtering with the aid of steam admitted into a chamber in which it spreads out and comes into immediate contact with the feed or other water, the film or sheet of water being heated by direct contact of steam, whilst it is distributed over plates arranged above one another, the steam passing over and between said plates, heating them and the water while the water is dropping from plate to plate; and means for separating fatty matters from the water are provided. This invention has reference to that type of apparatus in which the water purifying and filtering chamber is arranged with its upper part constricted and provided with horizontal baffle- and spreading-plates for liquid and fluid, supported on a central stem, or not so provided, as may be desired.

Claim.—The combination of parts of the apparatus for heating and purifying or filtering feed-water and the like, as and for the purpose set forth, and shown by the drawings.

(Specification, 4s. 9d.; drawings, 13s.)

No. 12902.—22nd August, 1900.—THE BRITISH WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, LIMITED, of Westinghouse Building, Norfolk Street, Westminster, England, Manufacturers (assignees of Norman Wilson Storer, of Vine Street, Edgewood Park, Allegheny, Pennsylvania, United States of America). Improvements in and relating to electric generators and motors.

Claims.—(1.) For an electric generator or motor, an armature having a slotted core with a number of conductors located in each slot and connected in multiple to the commutator bars, those conductors which lie side by side in the slots being connected to the same commutator bar, substantially as described. (2.) For an electric generator or motor, an armature constructed substantially as described with reference to the drawing.

(Specification, 3s. 3d.; drawings, 8s.)

No. 12903.—22nd August, 1900.—THE BRITISH WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, LIMITED, of Westinghouse Building, Norfolk Street, Westminster, England, Manufacturers (assignees of Charles Ira Young, of Land Title Building, Philadelphia, Pennsylvania, United States of America). Improvements relating to systems of alternating-current electrical distribution.

Claims.—(1.) The combination with an electric generator, and an engine for driving the same, of a centrifugal governor for the engine and an inertia governor for controlling the action of the centrifugal governor. (2.) The combination with a plurality of engines and a plurality of electric generators connected in parallel to distributing conductors and respectively driven by said engines, of a centrifugal governor and an inertia governor for each engine acting in opposition to maintain the generators in synchronous operation. (3.) The combination with an electric generator, and an engine for driving the same, having a centrifugal governor, of an inertia governor connected to the valve-gear and serving to reduce the lead of the valves to a minimum in case of an electrical short circuit. (4.) The means for maintaining synchronism between two or more alternating-current generators supplying distributing-mains in parallel, substantially as described.

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

No. 12906.—23rd August, 1900.—MARSHALL WILFRED HANKS, of Pittsburgh, Pennsylvania, United States of America, Electrical Engineer. Improvements in terminals and supports for Nernst lamp glowers.

Claims.—(1.) The process of applying permanent terminals to the ends of a Nernst lamp glower, which consists in attaching a conducting material to the ends of the glower, and causing the said conducting material to socket itself within the said end by applying intense heat to the conducting material and the glower-end. (2.) In the process characterized in the first claim, attaching a lead-wire to the glower and its terminal by bringing the conducting material to a state of complete or partial fusion within its socket, and plunging the end of the lead-wire into or against the melting or molten metal, and permitting the same to cool. (3.) A modification of the process characterized in the second claim which consists in securing to the end of the glower a chalk-like porous material, then baking the same upon the said end, and attaching a lead-wire to the baked material by any suitable conducting solder. (4.) A modification of the processes characterized in the first and third claims which consists in attaching to the glower by either of the processes therein described not only the terminal lead-wires, but also one or more anchor-wires intermediate between the glower-ends. (5.) A terminal for Nernst lamp glowers consisting of a solid body of metal socketed in the end of the glower. (6.) A terminal for a Nernst lamp glower consisting of a metallic globule socketed within the end of the glower, in combination with a conducting wire united with the said globule. (7.) A glower for Nernst lamps having a solid body or bead of metal socketed within each of its ends.

(Specification, 5s. 9d.; drawings, 5s. 6d.)

No. 12907.—23rd August, 1900.—HENRY NOEL POTTER, of Pittsburgh, Pennsylvania, United States of America, Electrical Engineer. Improvements in ballast resistances and cut-outs for Nernst lamps.

Claims.—(1.) The process of operating a cut-out in the heater circuit of Nernst lamps which consists in causing the rupture of the heater circuit at the proper time by the direct or indirect action of the ballast resistance in the glower circuit. (2.) In the process characterized in the first claim, causing the heat developed in the ballast resistance to operate directly or indirectly a thermostatic element in the heater circuit. (3.) In the process characterized in the first claim, causing the heater circuit to be ruptured by the action of the expansion of the ballast resistance under the influence of heat. (4.) In the process characterized in the first claim, causing the heater circuit to be ruptured through the medium of the heat developed in the neighbourhood of the ballast

resistance by reason of the heated condition of such resistance. (5.) A modification of the process described in the preceding claim which consists in rupturing the heater circuit through the medium of magnetic effects produced within a sealed chamber containing the ballast resistance. (6.) A circuit-controlling device for the heaters of Nernst lamps consisting of a conductor adapted to be connected in series with the glower of the lamp, contact points normally held together by the tension of the said conductor when cold, and means for separating said contact points upon the expansion of the said conductor. (7.) The combination of an electric-lamp glower, a ballast wire of iron in series therewith, a heater circuit in shunt around the glower, and a circuit making and breaking device for the heater circuit, operated by the expansion and contraction of the ballast wire. (8.) The combination of a glower of the Nernst type, an electric heater therefor, a controller for determining the position of the heater, located in a shunt circuit around the glower or in series therewith, means for closing said circuit when the glower is in operation and opening the said circuit when the glower is not in operation. (9.) The combination with a glower of the Nernst type, an electric heater therefor, and a ballast conductor in series with the glower, of an automatic controlling-device for the said heater, located in a shunt to the heater or in series therewith. (10.) The combination with a glower, of a ballast conductor in series therewith, a heating conductor for imparting the initial temperature to the glower, and a cut-out for the heater, operated by the expansion and contraction of the ballast conductor. (11.) The combination with a glower of the Nernst type, an electric heater for the glower, and a controller for determining the relative positions of the heater and glower, the said controller being located in a circuit that is in shunt to the heater and outside the glower circuit. (12.) The combination with a glower of the Nernst type, an electric heater therefor, and a ballast conductor in series with the glower, of an automatic controlling-device for the said heater, located in a shunt thereto or in series therewith. (13.) An electric lamp of the Nernst type, consisting of a glower, a steadying resistance therefor inclosed in an inert gas, a heater, and a controlling-device therefor, having its contacts in an inert gas. (14.) An electric lamp of the Nernst class, comprising a heater, a glower, and a steadying resistance for the glower, and a controller for the heater circuit, having separable contacts, the relative positions of which are controlled by energy derived from the steadying resistance, and a sealed chamber in which said contacts are located. (15.) An electric lamp of the Nernst class, comprising a glower, a ballast therefor located in a sealed chamber, a heater, and a controlling-device therefor, having its contacts within the said sealed chamber. (16.) The combination, in a Nernst lamp, of a steadying resistance for the glower, and a thermostatic cut-out for the heater, both enclosed within a single chamber containing an inert gas. (17.) A cut-out for the heater circuit of lamps of the Nernst class, having its solid metallic contact elements enclosed in an atmosphere of hydrogen. (18.) A cut-out for the heater circuit of Nernst lamps, substantially as shown and described.

(Specification, 9s. 6d.; drawings, 16s.)

No. 12908.—23rd August, 1900.—ALEXANDER JAY WURTS, of Pittsburgh, Pennsylvania, United States of America, Electrical Engineer. Improvements in systems of lighting by Nernst lamps.

Claims.—(1.) The process of operating electric-lighting systems in which glowers of the Nernst type are employed which consists in arranging a number of heaters in a single circuit in proximity to the glowers, and controlling the operation of the heaters by means of a single device. (2.) In the process characterized in the first claim, controlling the selection of the lamps or groups of lamps to be lighted by separate devices. (3.) A modification of the process characterized in the first claim which consists in combining in the same system lamps or groups of lamps which are under unitary control with lamps provided with separate selecting-devices for each lamp or group of lamps. (4.) In a system of distribution for lamps of the Nernst type, a source of current and a plurality of lamps, the glowers of which are connected in parallel and the heaters of which are connected in series to said source, in combination with a manually operated switch in the conductor supplying said heaters. (5.) In a system of distribution for electric lamps of the Nernst type, a source of current and a plurality of lamps, the glowers of which are connected in parallel and the heaters of which are connected in series to said source, in combination with a manually operated switch in the conductor supplying said heaters, a switch in each glower circuit, and means for simultaneously actuating said glower circuits by successive closing movements of the heater-circuit switch. (6.) A system of electric distribution for electric lamps of the Nernst type comprising a source of current, a plurality of lamps supplied in parallel from said source and severally provided with means for cutting the same into and out of circuit, a plurality of lamps having glowers connected in parallel to the source, and heaters connected in series, and controlling switches for the glower circuits which are actuated simultaneously from the heater circuit. (7.) In an igniting system for Nernst lamps, a generator of electricity, and mains proceeding therefrom, two or more lamps connected up between the mains, and individual circuit-controllers for each lamp, in combination with heaters for the said lamps, and a heater circuit common to all the heaters and controlled by a separate circuit-controller. (8.) A number of Nernst lamps connected up between the mains of an electric-lighting system, a number of heaters arranged in series in proximity to the said lamps, a circuit-controller for each lamp circuit, and a circuit-controller for the heater circuit, the said heater circuit being supplied by any suitable source of current. (9.) In an igniting system for Nernst lamps, a lighting circuit including a number of lamps or glowers, an independent heating circuit, containing as many heaters as there are lamps, and a switch controlling the said heater circuit. (10.) In an igniting or lighting system for lamps wherein the glowers are brought to a state of conductivity by electrical heating-devices, a number of such lamps arranged in one or more groups at local stations, a corresponding number of heaters in proximity to the said lamps and arranged in series with each other, and a switch controlling the heater circuit, the said switch being located at a central station. (11.) In an igniting or lighting system for that class of lamps in which glowers of rare earths are brought to a state of conductivity by electrical heating-devices, a suitable source of current, and mains extending therefrom, a number of lamps connected with the mains and arranged in one or more groups at a local station or stations, a third wire constituting a branch from one of the mains, and a number of heaters corresponding to the number of lamps arranged in similar groups between the said third wire and the other main, and a switch controlling the passage of the current in the said third wire. (12.) In an igniting or lighting system for that class of lamps in which glowers of rare earth or mixtures of rare earths are brought to a state of conductivity by electrical heating-devices, a pair of mains and a number of lamps arranged in one or more groups at a local station or stations, a third wire constituting a branch from one of the mains, and heaters connected up between the said third wire and the other main, in combination with a switch and an adjustable resistance in the said heater circuit, the said switch and resistance being located at a central station. (13.) In an igniting or lighting system for that class of lamps in which glowers of rare earth or mixtures of rare earths are brought to a state of conductivity by electrical heating-devices, a pair of mains and a number of lamps arranged in one or more groups at a local station or stations, a third wire constituting a branch from one of the mains, and heaters connected up between the said third wire and the other main, in combination with a switch, an ammeter and an adjustable resistance in the said heater circuit, the said switch, ammeter, and resistance being located at a central station. (14.) In an igniting or lighting system for that class of lamps in which glowers of rare earth or mixtures of rare earths are brought to a state of conductivity by electrical heating-devices, a generator, a pair of mains extending therefrom, a third wire extending from one side of the generator, and a number of heaters included between said third wire and the opposite main. (15.) In an igniting or lighting system for that class of lamps in which glowers of rare earth or mixtures of rare earths are brought to a state of conductivity by electrical heating-devices, a generator and a pair of mains, a derived circuit including heating-devices in series at local stations, and a switch at a central station controlling the derived circuit. (16.) A system of electric lighting by means of Nernst lamps, substantially as shown and described.

(Specification, 10s.; drawings, 8s.)

No. 12909.—23rd August, 1900.—ALEXANDER JAY WURTS, HENRY NOEL POTTER, and MARSHALL WILFRED HANKS, of Pittsburgh, Pennsylvania, United States of America, Electrical Engineers. Improvements in starting-apparatus and cut-outs for Nernst lamps.

Claims.—(1.) The process of operating automatic cut-outs for Nernst lamp heaters which consists in utilising for the operation of such cut-outs the energy of the heater circuit increased by a comparatively small portion of the energy in the glower circuit. (2.) The process of automatically cutting out Nernst lamp heaters which consists in causing the cut-out to rupture the primary circuit of a converter in whose secondary the heater is located. (3.) The process of operating automatic cut-outs for Nernst lamp heaters which consists in breaking the heater circuit at two or more points. (4.) The process of operating automatic cut-outs for Nernst

lamp heaters which consists in electro-magnetically rupturing the heater circuit, and preventing the restoration of the circuit by positive means. (5.) The process of operating automatic cut-outs for the heaters of Nernst lamps having multiple glowers which consists in utilising the windings of the electro-magnetic cut-outs as a portion or all of the steadying resistance for the glowers. (6.) The process of operating automatic cut-outs for Nernst lamp heaters which consists in utilising for the operation of the cut-out, either in whole or in part, the current passing through less than all of the glowers of a multiple-glower lamp. (7.) The process of operating automatic cut-outs for Nernst lamp heaters which consists in arranging the cut-out magnet in circuit with two or more ballast or steadying resistances arranged in multiple. (8.) The process of operating automatic cut-outs for Nernst lamp heaters which consists in causing the heater to approach the glower by electro-magnetic means and afterwards to recede therefrom. (9.) The process of operating automatic cut-outs for Nernst lamp heaters which consists in providing an additional safety cut-out in the heater circuit itself, designed to act eventually should the glower circuit be inoperative. (10.) In an electric lamp having a glower composed of material which is a non-conductor when cold and a conductor when heated, of a heater, a retracting-device for the said heater, a device in the heater circuit adapted to overcome said retracting-device, and a circuit-breaker for the heater circuit. (11.) An electric lamp of the Nernst class having its glower and heater in parallel circuits, and provided with an automatic interrupter operated by the glower-circuit current, and an auxiliary interrupter for the heater circuit operated independently of the glower circuit. (12.) The combination of multiple glowers which require to be heated to be rendered conductive, a heater for bringing one or more thereof to a conducting temperature, and means for automatically withdrawing the heater from action when only a portion of the glowers have been brought to such temperature. (13.) The combination, in an electro-magnetic cut-out, of a magnet or solenoid, and a core or armature adapted to be operated thereby, the said core or armature being maintained in a predetermined angular position by magnetic means. (14.) In a multiple-glower lamp, a plurality of glowers, and a circuit-breaking coil in circuit therewith, having strands equal in number to the glowers, said strands being in multiple with each other. (15.) In a multiple-glower lamp, a number of glowers adapted to operate simultaneously, a heater for the said glowers, or a portion thereof, included in a suitable heating circuit, a circuit-breaker in the heating circuit connecting with a suitable core or armature, and a circuit-breaking coil in circuit with the glowers, the said coil having strands equal in number to the glowers, and each strand arranged in series with a separate glower. (16.) In a lamp of the Nernst type, a glower, a heater circuit, including a heater near the glower, a switch in the heater circuit, a solenoid or magnet having its core or armature connected to the movable part of the switch, and a catch or detent engaging the core or armature after its initial operation, and adapted to be tripped by the opening of the switch. (17.) The combination with a source of electric current, and a circuit therefrom including one or more glowers, of an electric heater near the glower or glowers, a converter supplying said heater, and a switch controlling the circuit of the heater. (18.) An electric lamp of the Nernst type, comprising a glower, a heater, and a heater cut-out, having its actuating coil traversed by both heater and glower currents. (19.) The process of operating multiple-glower electric lamps of the Nernst class which consists in causing the current passing through a single glower or group of glowers to cut out the other glowers or groups thereof. (20.) The process of operating multiple-glower electric lamps of the Nernst class which consists in selecting that one of the glowers which is sure to be the last to light, and placing it in series with the cut-out coil for the heater circuit, whereby the operation of the lamp is placed under the control of a selected glower which is preferably of lower efficiency than the rest, in order that it may constitute a permanent element of the lamp.

(Specification, 15s. 6d.; drawings, £1 1s.)

No. 12910.—23rd August, 1900.—ALEXANDER JAY WURTS and MARSHALL WILFRED HANKS, of Pittsburgh, Pennsylvania, United States of America, Electrical Engineers. Improvements in terminal connections and supports for Nernst lamps.

Claims.—(1.) In an electric lamp, a removable portion comprising one or more glowers, a support therefor, a heating conductor carried by the support, one or more steadying resistances, also carried by the support, and means for forming electrical and mechanical connections between the removable part and its fixture. (2.) In an electric lamp, the combination of multiple glowers, a supporting-frame therefor, a steadying resistance in series with each glower, independent of the others, said steadying resistance being carried by the glower-supporting frame, and an enamel coating for said steadying resistance. (3.) In an electric lamp, the combination with one or more glowers of means for heating the glowers, steadying resistances included in the respective circuits of the glowers, all united in one structure, and means for coupling the structure to a suitable fixture. (4.) The combination of a glower-supporting plate, lugs or ribs on the face thereof, and a heating conductor placed in the spaces between the ribs. (5.) In a glower-and-heater support, a plate having ribs upon one face, and slots in opposite edges. (6.) The combination of one or more glowers, a support therefor, a heating-device for the glower, carried by said support, steadying resistances for the respective glowers, also carried by the said support, and a detachable coupling-device for securing the support to a fixture. (7.) The combination of a glower-supporting plate and a contact supporting plate, the contacts carried by the latter being insulated from each other, and a portion of the binding-posts carried thereby being multiple binding-posts. (8.) The combination of a disc of heat-resisting material for supporting the glowers and circuit terminals, a disc of heat-resisting material carrying a heater in proximity to the glowers, and a web, also of heat-resisting material, interposed between the said discs. (9.) The combination of a disc or plate, a heating-device supported thereon, one or more glowers supported in proximity to said heating-device, a plate remote from the radiating effect of said glowers, and ballast wires equal in number to the glowers, and supported upon the said plate. (10.) The combination of a number of glowers arranged in multiple series, ballast wires in circuit therewith, and a support for the glowers and ballast wires. (11.) The combination with a number of glowers, arranged in multiple series, of a heat-resisting plate, the members of each series of glowers being arranged on opposite sides of the said plate. (12.) The combination with a number of glowers arranged in multiple series, ballast wires interposed between the inner terminals of the members of the series, and a support on which the said parts are mounted. (13.) The combination with a glower of a yielding ballast wire, connected directly to the glower terminal, and a support carrying the described parts. (14.) The combination with a number of glowers arranged in multiple series, of ballast wires interposed in each cross-circuit, the several cross-circuits being insulated from each other at all points between the branching points thereof, the whole being carried by a suitable support. (15.) The combination with a fixture supplied with circuit terminals, and a removable lamp of the Nernst type provided with corresponding terminals, the said terminals being split tubes, and posts engaging therewith. (16.) A terminal connection for Nernst lamps, such as is illustrated in Fig. 10. (17.) In a lamp of the Nernst type, a plate carrying one or more glowers, and a heater therefor, the terminal or lead wires for the said heater and glower or glowers ending in plugs of aluminium or similar material, whereby the plate and the parts which it carries may be attached to a support. (18.) A removable element for Nernst lamps substantially as shown and described.

(Specification, 9s. 6d.; drawings, £1 1s.)

No. 12911.—23rd August, 1900.—ALEXANDER JAY WURTS, HENRY NOEL POTTER, EDWARD BENNETT, and MURRAY CHARLES BEEBE, of Pittsburgh, Pennsylvania, United States of America, Electrical Engineers. Improvements in Nernst lamps, and heaters therefor.

Claims.—(1.) The process of making electric heaters for Nernst lamp glowers which consists in applying a conductor in the form of a spiral or helix to one face of a ceramous, plastic non-conducting rod or tube, bending said rod or tube and its affixed spiral into the desired form, and rendering said form permanent by heat. (2.) An electric heater for Nernst lamp glowers in which a thin, light insulating body of curved cross-section is interposed between the glower and the heating conductor. (3.) In combination with a tubular heater-body of light, insulating, refractory material, terminal wires projecting through perforations adjacent to the ends of the tube and fused therein, and a heater-wire having its ends joined to the terminal wires. (4.) The combination with a glower of the Nernst type of an electric heater detachably held in proximity thereto. (5.) The combination with a glower of the Nernst type, and an electric heater therefor, of three circuit terminals for the said glower and heater, carried by an insulating base, one of the said terminals being common to the heater and the glower, and the other two being separately connected to the heater and the glower. (6.) An electric heater for Nernst lamp glowers consisting of a thin, light insulating body of curved cross-section, the said body being provided upon its outside with grooves transverse to its longitudinal axis, in combination with a heating conductor wound back and forth within the said grooves. (7.) An electric heater for Nernst lamp glowers, comprising convolutions of a "composite wire," composed of a rod of insulating material and a spiral of conducting material

wound upon said rod. (8.) The combination with a glower of the Nernst type of a heater convolutely embracing the same and consisting of an insulately imbedded conductor, the convolutions of the heater being separated or transparent, or both, to permit the passage of light from the glower through the heater. (9.) The combination with a glower of the Nernst class of a spirally encircling electric heater in the form of a single or double cone, the spirals of the heater being spread or transparent, or both, so as to permit the passage of light from the glower through the heater. (10.) The combination with a glower of the Nernst type of an insulately imbedded embracing heater of spiral form. (11.) The process of making electric heaters which consists in winding a conductor in the form of a spiral or helix upon a ceramous, plastic, non-conducting rod, bending said rod and its affixed spiral into the desired form, and rendering said form permanent by heat. (12.) As an element of an electric heater, designed to be located in proximity to a Nernst lamp glower, a brace or support of quartz or other transparent material. (13.) The mode of preparing and mounting an electric heater and a glower in proximity to each other which consists in using for the heater-support an easily moulded rod, and forming the ends of the said support, where they are not covered by the heating conductor, into appropriate shapes for the attachment of the lead-wires to the glower. (14.) The mode of preparing and mounting an electric heater and a glower in proper relation to each other which consists in fusing the lead-wire for the heater to the insulating heater-support in addition to connecting the lead-wires to the heating conductor. (15.) The combination with a glower or glowers of the Nernst type of a plurality of heaters therefor, disposed in parallel lines and electrically connected in parallel. (16.) The combination with a glower of the Nernst type of a plurality of heaters connected in parallel and either extending from end to end of the glower or arranged one behind the other so as to cover the entire length of the glower. (17.) The combination with one or more glowers of the Nernst type of a plurality of heaters connected in parallel and disposed at an angle to said glower or glowers. (18.) The combination with a Nernst lamp glower adapted for high voltages of a plurality of heaters having independent circuits and respectively disposed adjacent to different portions of the glower and out of alignment with each other. (19.) The combination with a horizontally disposed glower of the Nernst type of a plurality of suitably disposed heaters in one or more planes above that of the glower, and a stand upon which said glower and heater are supported. (20.) The combination with a horizontally disposed glower of the Nernst type of a pair of tubular heaters disposed in a plane above the glower, and a heat and light reflecting tube located between the heaters. (21.) The combination with a glower of the Nernst type, and an electric heater in proximity thereto, of a common supporting arm for the glower and heater at one end and separate supporting arms therefor at the opposite end. (22.) The combination with an electric heater for Nernst lamp glowers of supporting arms, at least one of which is elastic to permit the easy removal of the heater. (23.) The improvements in Nernst lamp heaters substantially as shown and described.

(Specification, 14s.; drawings, £1 1s.)

No. 12912.—23rd August, 1900.—PETER COOPER HEWITT, of 11, Lexington Avenue, New York, United States of America, Scientist. Improvements in electric lighting.

Claims.—(1.) The improvement in producing light electrically which consists in partly enclosing a conducting gas or vapour, applying thereto a current of considerable quantity and moderate electro-motive force, and varying the pressure of the gas or vapour until the same becomes intensely luminous by the passage of the current, and afterwards hermetically sealing up the enclosed gas or vapour. (2.) In the process characterized in the first claim, and in the process of operating my lighting-device, starting the passage of the normal current by a current of higher potential. (3.) In the process characterized in the first and second claims, combining a starting material with the conducting gas or vapour. (4.) A modification of the process of operation characterized in the second claim, in which the volatilised vapours are condensed, and the condensed vapours are returned to be revolatilised. (5.) A modification of the process of operation characterized in the second claim, in which the pressure of the enclosed gas or vapour is equalised, and the excess heat is conducted off by means of a cooling-chamber of proper capacity outside the path of the current. (6.) A modification of the process of operating my lighting-device characterized in the second claim, in which the steady action of the lamp is assisted by a resistance in series therewith. (7.) A method of producing light consisting in including in an electric circuit carrying a current of determinate voltage an enclosed vapour specifically adapted to a current of such voltage, so as to conduct the current, and be made luminous thereby. (8.) A method of producing light consisting in subjecting an enclosed volatilisable conducting medium to heat in order to vaporize the same, and conducting an electric current of suitable voltage through the vapours thus produced. (9.) A method of operating a lighting-device containing a gas or vapour as the conducting-medium consisting in maintaining outside the vapour-path a space through which the current does not pass. (10.) An electric lamp consisting of a container holding a vapour of comparatively low resistance, and adapted to pass a current of considerable quantity. (11.) An electric lamp consisting of the combination of a container, a material in the container volatilisable by heat, electrodes in the container separated beyond arcing distance, the light-giving medium being the vapour of the said volatilisable material acting as a conductor between the electrodes. (12.) A gas or vapour electric lamp having its terminals connected with a source supplying a given current, and containing a conducting gas or vapour the density of which is specifically adapted to the said current. (13.) An electric lamp consisting of an enclosing chamber, a conducting gas or vapour within the said chamber, and adapted to conduct a current of determinate voltage, electrodes connected with each other by means of the gas or vapour, and a static charge-dissipator located near one of the electrodes, but insulated therefrom, and electrically connected to the other electrode. (14.) In an electric-lighting apparatus, the combination with an electric lamp, and two sources of electro-motive force, simultaneously connected therewith, of means for applying one source for starting the lamp, and for employing the other source in the continued operation of the lamp (15.) An electric lamp consisting of an enclosing chamber, electrodes within the same, and a conducting gas or vapour intervening between the electrodes and capable of maintaining the passage of an electric current from electrode to electrode under the influence of moderate differences of potential, the resistance between the respective electrodes and the gas or vapour being small relatively to the resistance of the vapour or gas. (16.) An electric-lighting system in which a vapour or gas as a conducting medium is connected up in a commercial circuit, in combination with means for applying to the lamp a current of higher potential than the commercial circuit carries for starting the lamp, and afterwards cutting off the high potential current. (17.) In an electric lamp of the character described, the combination of a closed chamber containing a conducting gas or vapour of such density as to convey currents of considerable quantity and moderate pressure, an electrode within the said chamber, the said electrode being protected by a covering of non-conducting material making an electrically tight joint therewith. (18.) An electric gas or vapour lamp as illustrated in Fig. 2. (19.) An electric lamp employing a gas as a light-giving medium as illustrated in Fig. 4. (20.) An electric lamp having a vapour as a source of light and of resistance, adapted to be operated continuously by a current of constant voltage and predetermined number of amperes. (21.) An electric gas or vapour lamp as shown and described.

(Specification, £1; drawings, 11s.)

No. 12913.—23rd August, 1900.—WILLIAM PLAYER BICE and ARTHUR HAROLD GUTHRIDGE, both of 415 and 417, Lonsdale Street, Melbourne, Victoria, Manufacturers and Importers (assignees of William Taylor, of 56, Burnbank Street, Ballarat, Victoria, Mechanic). An improved fastening for gaiters or leggings.

Claims.—(1.) In an improved fastening for gaiters or leggings, a metallic strip within a passage-way at the outer meeting lapped joint, said strip having at one end shoulders and a tongue, and at the other a gullet or gap, all as and for the purposes described and as illustrated in the drawings. (2.) In an improved fastening for gaiters or leggings, a metallic strip within a passage-way at the inner meeting lapped joint, said strip having at one end a foot with an elongated hole therein, and at the other a gullet in which, by a pivot-pin secured in an overturned portion of the strip, is pivoted a locking button controlled by a flat spring and having a stop or rib and a nail or finger-catch, all as and for the purposes described, and as illustrated in the drawings. (3.) An improved fastening for gaiters or leggings consisting of a metallic strip within a passage-way at the outer meeting lapped joint, said strip having at one end shoulders and a tongue, and at the other a gullet or gap, in combination with a metallic strip within a passage-way in the inner meeting lapped joint, said strip having at one end a foot with an elongated hole therein, and at the other a gullet in which, by a pivot-pin secured in an overturned portion of the strip, is pivoted a locking button controlled by a flat spring, and having a stop or rib and a nail or finger catch, all as and for the purposes set forth, and as illustrated in the drawings.

(Specification, 3s. 6d.; drawings, 5s. 6d.)

No. 12914.—23rd August, 1900.—The Victor Motor Company (Limited), of 156, Pitt Street, Sydney, New South Wales, Engineers (assignees of Gustav Ey, of 24, Bowes Avenue, Paddington, New South Wales, Engineer). An incandescent-tube igniter for gas-engines.

Claims.—(1.) An automatic tube igniter for gas-engines consisting of a thimble inserted into the body of the exhaust-valve in such a manner that the open end of the same is in communication with the combustion-chamber, while the closed exterior end projects into the exhaust-chamber, substantially as set forth. (2.) An automatic igniter for gas-engines consisting of a flanged thimble provided with an exterior screw-thread adjacent to the flange, and secured by said screw-thread to the exhaust-valve, the open end of said thimble being in communication with the combustion-chamber, while the outer closed end projects into the exhaust-chamber, substantially as set forth.

(Specification, 3s.; drawings, 5s. 6d.)

No. 12915.—23rd August, 1900.—James Orr, of 5, Stapleton Avenue, Falcon Street, North Sydney, New South Wales, Naval Architect, and Thomas McCulloch, of Alfred Street, Woolloh, Sydney aforesaid, Engineer. An improved down-draught ventilating-cowl.

Claims.—(1.) In the construction of a down-draught cowl, the combination with an air-shaft or ventilating-pipe of a main structural casing, comprising a lower expanded casing having air-inlet apertures enclosed externally with a seating flange, the said apertures being encircled internally with a circular guide-plate having an outer circular flange, and an upper casing whose expanded part is provided with a circular flange to correspond with the flanges of the said circular guide-plates and the flange of the lower casing, and secured thereto, the said upper casing being surmounted with a tube and an expanding throat supporting a circular flange, as described and shown, and for the purposes set forth. (2.) In a down-draught cowl, the combination, with a lower expanded casing having air-inlet apertures and an encircling outer flange, of a moisture-receptacle, supported upon discharging-pipes so as to stand at the desired height within the expanded part of the upper casing, the said receptacle having a dished plate to serve as a drip-plate and director-plate when used in conjunction with a suspended double cone, which is made adjustable, as described and shown, and for the purposes set forth. (3.) In a down-draught cowl of the class described, the combination, with a moisture-receptable attached to a lower expanded perforated casing and supported upon discharging-pipes so as to stand at the desired height within the expanded part of the upper casing, of a bridge secured to the said receptacle and socketed to receive one end of a centrally situated bolt provided with a clamping-nut, as described and shown, and for the purposes set forth. (4.) In a down-draught cowl, the combination of the detachable parts consisting of an upper removable casing chambered to receive a moisture-receptacle having a bridge, a centrally situated rod, and a covering drip-plate, with an intermediate circular guide-plate and a lower expanded casing whose air-inlet apertures are enclosed externally with a flange and internally with the intermediate circular guide-plate, as described and shown, and for the purposes set forth. (5.) In a down-draught cowl of the class described, the combination of an intermediate trumpet-shaped cone whose inlet end is constructed with an upper and lower cone secured to a taper body which surmounts a middle cone junctioning with a straight tube finished at its discharge end trumpet-shaped, and provided with division-plates either spiral or straight, secured externally thereto, with a circular flange, expanded throat, and tube which form part of an upper casing, as described and shown, and for the purposes set forth. (6.) In a down-draught cowl of the class described, a removable and rotatable triple cone provided with outwardly attached division-plates either spiral or straight, as described and shown, and for the purposes set forth. (7.) In a down-draught cowl, the combination of a removable and rotatable upper triple cone provided with external division-plates, either spiral or straight, with an intermediate trumpet-shaped cone also provided with external division-plates, and having a lower adjustable cone suspended above a moisture-receptacle secured within a main casing, the whole secured with a clamping-nut of a centrally situated rod or bolt, as described and shown, and for the purposes set forth. (8.) In a down-draught cowl of the class described, the combination and arrangement of both internal and external air-passages formed with the division-plates, either spiral or straight, of removable and rotatable cones, the said division-plates being capable of arrangement or disarrangement in the manner described, and for the purposes set forth. (9.) In a down-draught cowl, the combination of a series of buttons adapted to receive and secure flanged division-plates of rotatable cones, such plates being pierced with openings for the insertion of the said buttons with the supporting flange or flanges of a main casing and of a superimposed intermediate cone, the said series of buttons being used as an alternative method of securing removable and rotatable cones which may also be secured with a centrally situated rod provided with a clamping-nut, as described and shown, and for the purposes set forth. (10.) The general combination and arrangement of the parts described, the whole forming our improved down-draught cowl, as described, and as illustrated in the drawings.

(Specification, 11s.; drawings, £1 1s.)

F. WALDEGRAVE,
Registrar.

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

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 note for the cost of copying.

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

Provisional Specifications.

Patent Office,
Wellington, 29th August, 1900.

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

No. 12814.—18th August, 1900.—Anton Dornbusch, of Whangamomona, Taranaki, New Zealand, Settler. An automatic coupling for railway and other locomotives, carriages, and trucks.

No. 12855.—10th August, 1900.—William Edward Hunter, of Maungakaramea, Auckland, New Zealand, Blacksmith. An improved self-acting burglar-proof catch for window-sashes.

No. 12861.—11th August, 1900.—Albert Adams, of Blenheim, New Zealand, Commercial Traveller. A new or improved clothes-strainer for washing-boilers and tubs.

No. 12868.—13th August, 1900.—Harry Gulliver, of 411, Chapel Street, South Yarra, Victoria, Builder, and Thomas Crow Fowler, of Station Street, Canterbury, Victoria, Engineering Draughtsman. Improved electric travelling contact appliances for establishing telephonic and signal communication on railways between the signalman in the box and the driver of a locomotive.

No. 12869.—13th August, 1900.—James Louisson, Postal Clerk, and Arthur Hosking, Engineer, both of Palmerston North, New Zealand. Improvements in collapsible packing-cases and similar receptacles.

No. 12870.—14th August, 1900.—Walter Stephen Dudson, of Carterton, New Zealand, Wheelwright. An improved wool-press.

No. 12872.—15th August, 1900.—Henry Bloomfield, of Orepuki, New Zealand, Flax-miller. An improved adjustable tire for drays, wagons, and such wheeled vehicles.

No. 12874.—16th August, 1900.—George Edward Terry Tuck, of Hobson Street, Auckland, New Zealand, Engine-driver. Improvements in hoisting-gear for use with boring-tools, pile-driving and other analogous implements.

No. 12875.—13th August, 1900.—George Toussaint Girdler, of Westminster Lodge, Kyber Pass, Auckland, New Zealand, Surgeon. A method for adapting flowing water or the tide for generating electricity.

No. 12878.—13th August, 1900.—Daniel Rugg, of Parnell, near Auckland, New Zealand, Pattern-maker. Improved spectacle-attachments.

No. 12885.—17th August, 1900.—Frederick Samuel Ellerm, of Stanway, Feilding, New Zealand, Farmer. Improvements in and relating to wire-netting fences.

No. 12887.—17th August, 1900.—Donald Wood Mackay, of Mataura, New Zealand, Sawmiller. A contrivance to be affixed to planing, moulding, finishing machines, and the like, for perfecting the dressing of timber.

No. 12888.—18th August, 1900.—John Ernest Watkins, of Tinwald, Canterbury, New Zealand, Contractor. Crane and friction-hoist attachment for traction-engines.

No. 12889.—20th August, 1900.—Bernard Molineux Holt, of 10, Tinakori Road, Wellington, New Zealand, Engineer's Apprentice. Detachable bunk tray.

No. 12891.—17th August, 1900.—William Bromiley, of Dunedin, New Zealand, Miner. Improved insect-killing composition for use in orchards and the like.

No. 12892.—17th August, 1900.—William Bromiley, of Dunedin, New Zealand, Miner. Improved vessel for containing material for killing moths and the like.

No. 12893.—17th August, 1900.—Charles Topliss, of Lincoln Road, Addington, Canterbury, New Zealand, Pattern-maker. Improvements in butter-working machines.

No. 12894.—20th August, 1900.—Alfred Tindill, of Blenheim, New Zealand, Travelling Insurance Agent,

(nominee of George Wood, of 4, Croft Street, Burnley, Lancashire, England, Mining Engineer). An improved heel-pad.

No. 12901. — 22nd August, 1900. — CHARLES HARRISON WARD, of 60, Queen Street, Melbourne, Victoria, Metallurgist. An improved process of and furnace for chloridizing or for drying or roasting ores or other metalliferous materials, and [or] volatilising and separating their constituents.

No. 12916. — 23rd August, 1900. — CHARLES ALISTER TROTTER, of Opunake, New Zealand, Blacksmith. An improved cramp.

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 15th August, 1900, to the 29th August, 1900, inclusive:—

No. 11598.—M. G. Heeles, gold-saving blanketing.
No. 11656.—L. S. de Cleene, lifting-jack.
No. 11728.—A. E. Hight, watercourse-cleaner.
No. 11906.—H. Dell, horse-cover.
No. 12159.—F. E. Munn, machine for wiring blanks.
No. 12269.—A. Smith, sheep-dag-cleaning machinery.
No. 12538.—W. T. Pearce and W. H. Spiller, burner.

F. WALDEGRAVE,
Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 8815.—O. Mergenthaler, linotype machine. 22nd August, 1900.

No. 8842. — O. Mergenthaler, linotype machine. 24th August, 1900.

No. 8844.—Broken Hill Proprietary Company, Limited, treating zinc-ores. (W. E. Hughes—W. J. Koehler.) 17th August, 1900.

No. 8870.—C. C. Longridge and G. T. Holloway, smelting antimony-ores. 22nd August, 1900.

THIRD-TERM FEES.

No. 6410.—A. O. Wright, partition laths. 17th August, 1900.

No. 6520.—The Standard Wire Company, Limited, wire-coiler. (M. B. Lloyd.) 17th August, 1900.

F. WALDEGRAVE,
Registrar.

Subsequent Proprietors, &c., of Letters Patent registered.

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

NO. 5483.—Electric-circuit apparatus. [A. Wurts.]
No. 7438.—Measuring electric currents. [O. B. Shallenberger.]
No. 11353.—Electric switch. [H. P. Davis and E. F. Harder.]
No. 11354.—Electrical distribution. [B. G. Lamme.]
No. 11355.—Arc lamp. [H. P. Davis and F. Conrad.]
No. 11425.—Electric switch. [G. Wright.]
No. 11465.—Electric motor. [H. P. Davis and F. Conrad.]
No. 11466.—Electrical distribution. [B. G. Lamme.]
No. 11467.—Electric-motor controller. [H. P. Davis.]
No. 11468.—Regulating electro-motive force. [C. F. Scott and B. G. Lamme.]
No. 11494.—Electric brake. [H. P. Davis.]
No. 11495.—Electric-current measurer. [H. P. Davis and F. Conrad.]
No. 11496.—Conversion of electric currents. [B. G. Lamme.]
No. 11530.—Electric switch. [C. F. Scott, H. P. Davis, and G. Wright.]
No. 11531. — Induction motor. [B. G. Lamme.]
No. 11532.—Converting alternating-current energy into mechanical energy. [B. G. Lamme.]

The British Westinghouse Electric and Manufacturing Company, Limited, a company duly formed and registered under the English Companies Acts, and having their registered office situate at Westinghouse Building, Norfolk Street, Strand, Westminster, England. 20th August, 1900.

No. 11127.—Francis Helps, of Invercargill, New Zealand, Metaphysician, freezing meat. *One-fifth interest.* [G. J. A. Richardson.] 21st August, 1900.

No. 11755.—Thomas Gordon, of Wanganui, New Zealand, Blacksmith, fire-escape ladder. [F. J. Watty and T. Gordon.] 21st August, 1900.

No. 12228.—Alexander Clark, David Clark, and Robert Bailie Clark, constituting the firm of Clark Bros., of Oamaru, New Zealand, Produce Merchants, loading-elevator. *Licensees of the exclusive right to make, use, exercise, and vend the said invention in the Colony of New Zealand and its dependencies for such period as the Letters Patent shall remain in force.* [R. Perkins and J. Swann.] 20th August, 1900.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent abandoned.

LIST of applications for Letters Patent (with which provisional specifications only have been lodged) abandoned from the 16th August, 1900, to the 29th August, 1900, inclusive:—

No. 12095.—E. V. Vaile, music-leaf.
No. 12096.—W. P. Trudgeon, rein-holder.
No. 12097.—M. P. Jonassen and R. Tomline, sheet-metal shears.
No. 12098.—E. Schilz, cyanide treatment of ores.
No. 12102.—R. Tomline and K. Graf, cycle toe-clip.
No. 12103.—R. Tomline and K. Graf, seed-cleaner.
No. 12104.—F. W. Mackenzie and R. S. Smith, gold-and-sand separator.
No. 12105.—D. Whitburn, leggings.
No. 12106.—S. Gibbons and O. Pedersen, gold-saving apparatus.
No. 12108.—W. F. Henderson, churn.
No. 12109.—F. and F. Raper, rabbit-trap.
No. 12111.—J. Coe, electric clock.
No. 12117.—J. Welsby and H. G. Bedell, machine for lead-heading nails.
No. 12118.—P. Ferguson, vat.
No. 12125.—J. T. Norton, egg-preservative.
No. 12131.—J. Miller, boiler-stoker.
No. 12132.—J. Miller, cycle-brake.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent lapsed.

LIST of applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 16th August, 1900, to the 29th August, 1900, inclusive:—

No. 11389.—H. T. Hill, horsefly-repelling composition.
No. 11398.—F. H. Jackson, handle-fastener.
No. 11401.—C. C. Morris, window-sash lock.
No. 11408.—H. Sankey and E. Brooke-Smith, treating flax.
No. 11411.—A. Storrie, ridger, sower, and cultivator.

F. WALDEGRAVE,
Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of fees from the 16th August, 1900, to the 29th August, 1900, inclusive:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 8502.—S. Lawrence, marine propulsion.
No. 8508.—F. Albrecht, tube-connecting device.
No. 8511.—S. A. Shipman, combined churn and egg-beater.
No. 8519.—E. L. Pease, structural arrangement.
No. 8523.—The Pattisson Hygienic Cycle-saddle Syndicate, Limited, cycle-saddle (S. Pattisson).
No. 8524.—J. W. Carter, ore-separator.
No. 8530.—J. J. Marshall, cycle driving-gear.
No. 8536.—A. Brake, dowelling, tenoning, and dovetailing apparatus.
No. 8537.—G. Bowron, binding-attachment for belt-stitching machine (C. D. Lightband).
No. 8538.—The Apostoloff Automatic Telephone Parent Syndicate, Limited, automatic telephone exchange (S. Berditschewsky; called Apostoloff).
No. 8555.—H. L. Peake, wire-tightener.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

No. 6188.—F. Weldon, bridge-construction.
No. 6207.—M. Ford, sheep-shearing machine.

F. WALDEGRAVE,
Registrar.

Notice of Request to amend Specification.

Patent Office,
Wellington, 29th August, 1900.

A REQUEST for leave to amend the title in connection with Letters Patent No. 11393, of the 23rd February, 1899, granted to John Gore Massie, C.E.M.E., of Belleville, Illinois, in the County of St. Clair, United States of America, Engineer, *from* "An improved system of opening up, working, and ventilating mines, and apparatus therefor," *to* "An improved method of ventilating mines, and apparatus therefor," has been left at this office, where it is open to public inspection. The patentee states as his reason that he desires to alter the title "in order to more correctly define the nature of the invention." Any person may at any time within one month of the date of this *Gazette* give me notice in writing of opposition to the amendment. Such notice must set forth the particular grounds of objection, and be in duplicate. A fee of 10s. is payable thereon.

F. WALDEGRAVE,
Registrar.

Request to correct Clerical Error allowed.

THE request to correct clerical error in application for Letters Patent No. 11855—W. Burrell and J. W. Story, export crate for rabbits—advertised in Supplement to the *New Zealand Gazette*, No. 65, of the 19th July, 1900, has been allowed.

F. WALDEGRAVE,
Registrar.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, 29th August, 1900.

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: 3101.
Date: 23rd July, 1900.

TRADE MARK.

The words

BOOK GIFT.

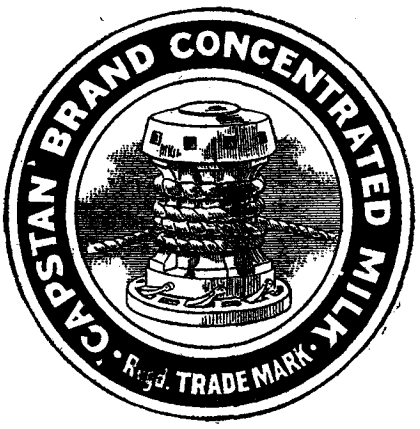
NAME.

W. SCOULAR AND Co., of Dunedin, New Zealand, Wholesale Merchants.

No. of class: 42.
Description of goods: Tea.

No. of application: 3103.
Date: 23rd July, 1900.

TRADE MARK.



The essential particular of this trade mark is the device and word "Capstan"; and any right to the exclusive use of the added matter is disclaimed.

NAME.

W. T. MURRAY AND Co., LIMITED, of Shortland Street, Auckland, New Zealand.

No. of class: 42.
Description of goods: Butter, cheese, preserved milk, and all dairy produce.

No. of application: 3110.
Date: 31st July, 1900.

TRADE MARK.

The word

UNEEDA.

NAME.

NATHANIEL DODGSHUN, of Brightwater, Nelson, New Zealand, Storekeeper.

No. of class: 24.
Description of goods: Cotton piece-goods, dress-goods of cotton.

No. of application: 3111.
Date: 30th July, 1900.

TRADE MARK.

The words

ROYAL STANDARD.

NAME.

E. W. PIDGEON AND Co., LIMITED, of 132, Lichfield Street, Christchurch, New Zealand, Importers.

No. of class: 22.
Description of goods: Bicycles, tricycles, and allied vehicles.

No. of application: 3125.
Date: 10th August, 1900.

TRADE MARK.

The essential particulars of this trade mark are the letters B. O. B. S., as signifying "Best Old Blended Scotch," over a presentment of Lord Roberts on a horse; and any right to the exclusive use of the added matter is disclaimed.

NAME.

THE CAMPBELL AND EHRENFRIED COMPANY, LIMITED, of 43, Queen Street Wharf, Auckland, New Zealand, Brewers and Wine and Spirit Merchants.

No. of class: 43.

Description of goods: Whisky.

No. of application: 3126.

Date: 17th August, 1900.

TRADE MARK.

The word

ALABASTINE.

NAME.

ANTI-KALSOMINE COMPANY, of Grand Rapids, Michigan, United States of America, Manufacturers.

No. of class: 17.

Description of goods: Manufactures from mineral and other substances for building or decoration.

No. of application: 3127.

Date: 17th August, 1900.

TRADE MARK.

The word

FIRE-FLY.

NAME.

VINOLIA COMPANY, LIMITED, of Malden Crescent, London, England, Manufacturing Chemists, Perfumers, and Soapmakers.

No. of class: 2.

Description of goods: Chemical substances used for agricultural, horticultural, veterinary, and sanitary purposes.

No. of application: 3128.

Date: 17th August, 1900.

TRADE MARK.

The word

FIRE-FLY.

NAME.

VINOLIA COMPANY, LIMITED, of Malden Crescent, London, England, Manufacturing Chemists, Perfumers, and Soapmakers.

No. of class: 47.

Description of goods: Candles, common soap, detergents; illuminating, heating, or lubricating oils; matches; and starch, blue, and other preparations for laundry purposes.

No. of application: 3130.

Date: 18th August, 1900.

TRADE MARK.

The word

CHLOROZONE.

NAME.

THE LAVERS MANUFACTURING COMPANY, of 35, King Street, Sydney, New South Wales.

No. of class: 2.

Description of goods: Cresyline disinfecting-fluid.

No. of application: 3131.

Date: 21st August, 1900.

TRADE MARK.

The essential particular of this trade mark is the combination of devices and the word "Sylvia"; and any right to the exclusive use of the added matter is disclaimed.

NAME.

UNION OIL, SOAP, AND CANDLE COMPANY, LIMITED, of Lower Albert Street, Auckland, New Zealand.

No. of class: 47.

Description of goods: Starch.

No. of application: 3133.

Date: 21st August, 1900.

TRADE MARK.

The words

KIA ORA.

NAME.

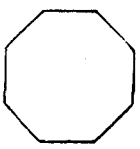
WARNOCK BROTHERS, of Durham Street, Auckland, New Zealand, Manufacturers.

No. of class: 47.

Description of goods: Candles, common soap, detergents; illuminating, heating, or lubricating oils; matches; and starch, blue, and other preparations for laundry purposes, such as washing-powders, benzine.

No. of application: 3136.
Date: 22nd August, 1900.

TRADE MARK.



NAME.

WM. CAMERON BROS. AND CO. PROPRIETARY, LIMITED, whose registered office is at Nos. 14 to 20, A'Beckett Street, Melbourne, in the Colony of Victoria, Tobacco-manufacturers.

No. of class: 45.
Description of goods: Manufactured tobacco, cigars, and cigarettes.

No. of application: 3139.
Date: 22nd August, 1900.

TRADE MARK.

The word

ALCOLIA.

NAME.

WILLIAM McLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 2.
Description of goods: Chemical substances used for agricultural, horticultural, veterinary, and sanitary purposes.

No. of application: 3140.
Date: 22nd August, 1900.

TRADE MARK.

The word

ALCOLIA.

NAME.

WILLIAM McLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England

No. of class: 3.
Description of goods: Chemical substances prepared for use in medicine and pharmacy.

No. of application: 3141.
Date: 22nd August, 1900.

TRADE MARK.

The word

ALCOLIA.

NAME.

WILLIAM McLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 43.
Description of goods: Fermented liquors and spirits.

No. of application: 3142.
Date: 22nd August, 1900.

TRADE MARK.

The word

ALCOLIA.

NAME.

WILLIAM McLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 47.
Description of goods: Candles, common soap, detergents; illuminating, heating, or lubricating oils; matches; and starch, blue, and other preparations for laundry purposes.

No. of application: 3143.
Date: 22nd August, 1900.

TRADE MARK.

The word

KALORIKEN.

NAME.

WILLIAM McLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 2.
Description of goods: Chemical substances used for agricultural, horticultural, veterinary, and sanitary purposes.

No. of application: 3144.
Date: 22nd August, 1900.

TRADE MARK.

The word

KALORIKEN.

NAME.

WILLIAM McLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 3.
Description of goods: Chemical substances prepared for use in medicine and pharmacy.

No. of application: 3145.
Date: 22nd August, 1900.

TRADE MARK.

The word

KALORIKEN.

NAME.

WILLIAM MCLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 43.

Description of goods: Fermented liquors and spirits.

No. of application: 3146.

Date: 22nd August, 1900.

TRADE MARK.

The word

KALORIKEN.

NAME.

WILLIAM MCLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 47.

Description of goods: Candles, common soap, detergents; illuminating, heating, or lubricating oils; matches; and starch, blue, and other preparations for laundry purposes.

No. of application: 3147.

Date: 22nd August, 1900.

TRADE MARK.

The word

SPIRITINE.

NAME.

WILLIAM MCLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 2.

Description of goods: Chemical substances used for agricultural, horticultural, veterinary, and sanitary purposes.

No. of application: 3148.

Date: 22nd August, 1900.

TRADE MARK.

The word

SPIRITINE.

NAME.

WILLIAM MCLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 3.

Description of goods: Chemical substances prepared for use in medicine and pharmacy.

C

No. of application: 3150.

Date: 22nd August, 1900.

TRADE MARK.

The word

SPIRITINE.

NAME.

WILLIAM MCLEAN, of Williams Road, Windsor, Victoria, Merchant, temporarily residing in London, England.

No. of class: 47.

Description of goods: Candles, common soap, detergents; illuminating, heating, or lubricating oils; matches; and starch, blue, and other preparations for laundry purposes.

No. of application: 3152.

Date: 24th August, 1900.

TRADE MARK.

The word

UNEEDA.

NAME.

NATHANIEL DODGSHUN, of Brightwater, Nelson, New Zealand.

No. of class: 42.

Description of goods: Tea.

No. of application: 3153.

Date: 28th August, 1900.

TRADE MARK.

The essential particulars of this trade mark are the word "Bobs" over a presentment of Lord Roberts on a horse; and the applicants disclaim any right to the exclusive use of the added matter other than their name, the Campbell and Ehrenfried Company, Limited.

NAME.

THE CAMPBELL AND EHRENFRIED COMPANY, LIMITED, of 43, Queen Street Wharf, Auckland, New Zealand, Brewers and Wine and Spirit Merchants.

No. of class: 43.

Description of goods: Whisky.

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 16th August, 1900, to the 29th August, 1900, inclusive:—

No. 2393; 2708.—Hunt and Coxon; Class 47. (*Gazette* No. 66, of the 3rd August, 1899.)

No. 2394; 3008.—Neil and Co., Limited; Class 42. (*Gazette* No. 50, of the 7th June, 1900.)

No. 2395; 2848.—H. Markwald; Class 42. (*Gazette* No. 9, of the 1st February, 1900.)

No. 2396; 2988.—Joshua Bros.' Proprietary, Limited; Class 43. (*Gazette* No. 50, of the 7th June, 1900.)

No. 2397; 2989.—Joshua Bros.' Proprietary, Limited; Class 43. (*Gazette* No. 50, of the 7th June, 1900.)

No. 2398; 3005.—The Salt Union, Limited; Class 42. (*Gazette* No. 50, of the 7th June, 1900.)

No. 2399; 3041.—Hayward Bros.; Class 42. (*Gazette* No. 50, of the 7th June, 1900.)

No. 2400; 3058.—Squire and Sons; Class 3. (*Gazette* No. 50, of the 7th June, 1900.)

No. 2401; 2797.—J. M. Murphy; Class 42. (*Gazette* No. 80, of the 28th September, 1899.)

No. 2402; 3057.—The Crown Ironworks Company, Limited; Class 18. (*Gazette* No. 50, of the 7th June, 1900.)

F. WALDEGRAVE,
Registrar.

Subsequent Proprietors of Trade Marks registered.

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

NO. 86/2226.—Wiggins, Teape, and Co., Limited, of 10, Aldgate, London, England, Paper-makers and Wholesale Stationers. [Wiggins, Teape, and Co.] 18th August, 1900.

No. 87/4520.—E. Izod and Son, Limited, of Landport, Hants, and 30, Milk Street, London, England, Corset-manufacturers. [E. Izod and Son.] 18th August, 1900.

F. WALDEGRAVE,
Registrar.

COPIES of the Patents, Designs, and Trade Marks Acts, 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.

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1. Printed Specifications to the end of the year 1879.
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3. Annual Reports of the Registrar, containing list of Letters Patent, nature of Letters Patent, &c., applied for during the years 1889 to 1899, inclusive.

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By Authority: JOHN MACKAY, Government Printer, Wellington.