SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, APRIL 3, 1902.

Published by Authority.

WELLINGTON, THURSDAY, APRIL 3, 1902.

CONTENTS.

Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 2nd April, 1902.

COMPLETE specifications relating to the undermentioned 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. 13492. — 25th March, 1902. — ARCHIE CLARENCE DENNES, of Auckland, New Zealand, Electroplater. An improved retaining catch for the pins of brooches.*

Claim.—The improved retaining catch for the pins of brooches, consisting of a spring snap-hook secured upon the back of the brooch, the spring member of such hook being provided with a projecting piece secured upon its inner face and extending across and through a slot in the other member of the hook, and projecting a slight distance beyond the edge thereof, as specified.

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

No. 13631.—22nd May, 1901.—ROBERT WALKER, of Dunedin, New Zealand, Tinsmith. An improved aerator for milk and other liquids.*

Claims.—(1.) In an aerator for milk and other liquids, superimposed vessels of triangular section having perforations in the converging sides at and on each side of their intersection, substantially as illustrated and for the purposes set forth. (2.) The improved aerator for milk and other liquids, consisting of, in combination, a rectangular receiver provided with an outlet, tap-sockets on said receiver adapted to receive vertical standards, collars on said standards supporting a superimposed vessel provided with brackets adapted to slide on said standards and rest on said collars, and perforations in the converging sides of said vessels at and on each side of their intersection, a triangular-shaped rectangular-topped vessel superimposed above the last-mentioned vessels provided with brackets having flanges adapted to rest on the top of said standards, and with perforations in its converging sides at and on each side of their intersection, and a strainer provided with lugs adapted to rest on the top of said last-mentioned vessel, substantially as and for the purposes set forth and illustrated. (3.) The combination and arrangement of parts constituting my aerator for milk and other liquids, constructed, arranged, and operating substantially as described.

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

No. 13781.—5th July, 1901.—EDWIN ANSON SPERRY, of Biwabik, Saint Louis, Minnesota, United States of America, Mining Engineer. Improvements in concentrators.

Claims.—(1.) In a concentrator, the intermediate frame and the upper frame, a shaft having an eccentric on which the upper frame is mounted, and the table rotating with the upper frame, substantially as specified. (2.) In a concentrator, the spring connections between the intermediate and upper frames and the means for holding the frames in parallelism, substantially as specified. (3.) In a concentrator, the rotating and vanning frame, the circular supporting-bar on the frame, and the table supported by and slidabl on the bar, substantially as specified. (4.) In a concen-

trator, a table, a lifting-rod, a disc on the rod engaging with the under side of the table near the centre, a roller carried by the rod, the inclined plate for engaging with the roller, and the screw-rod for adjusting the plate, substantially as specified.

(Specification, 5s.; drawings, 4s.)

No. 13814.—11th July, 1901.—DIXON CATLEY, of Renwicktown, Marlborough, New Zealand, Bootmaker. Double-grip lasting-pincers.*

Claim.—The fulcrum A being attached to the lower handle B and upper jaw C, instead of being attached to the upper handle and lower jaw, as in the old style of lasting-pincers.

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

No. 14287.—28th November, 1901.—EDWARD COLSTON LOVELL, of 109, Chesterfield Road, Ashley Down Road, Bristol, England, Engineer. Improvements in paper-bag-making machines.

Claims.—(1.) A split rotated die of the form shown in the drawings, and the die forming a gripper, as described and shown. (2.) The combination with a rotated split die of a rotated folder, cut as shown and described, and for the purpose named. (3.) The combination with a split die, as described, of a discharging-rod reciprocated through the said die, as shown and described. (4.) The combination with a rotated split die, as described, and a rotated folder, as described, of an oscillated presser of the form shown and described. (5.) The combination with a rotated split die, as described, of a hinged feed-plate, as shown and described. (6.) The combination with a rotated split die of a receiver, lever-fitted as shown, a shallow tray with hinged sides and end, also lever-fitted, and the said parts operated by a vertically moved cam-rod, as shown and set forth, and for the purpose named. (7.) The combination with a receiver, described, of a vertically operated plunger made in two parts as shown, one part sliding horizontally upon the other, and both parts guided vertically and cam-operated, substantially as shown. (8.) The combination with a pivoted receiver and a vertically and horizontally operated plunger and shallow tray, as described, of a pair of rolls, as shown, and for the purpose named. (9.) The combination with a shallow tray, with hinged sides, as shown, of a spring-mounted flap at the end of the tray, as shown and described.

(Specification, 16s.; drawings, 5s.)

No. 14303.—29th November, 1901.—THOMAS FARRER, of Mount Eden Road, Auckland, New Zealand, Watchmaker. An improved window-fastener.*

Claim.—In a window-fastener of the kind described, in combination, a circularly-shaped plate having its centre raised, a handle connected thereto, a hole bored in said plate near to its periphery and considerably out of centre, longitudinally or circularly shaped plates having recesses therein for engaging said circularly-shaped plate working eccentrically from said hole when connected to the lower and upper sashes in the manner shown, all for the purpose set forth, substantially as specified.

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

No. 14550.—21st February, 1902.—THE AMERICAN MACHINE TELEPHONE COMPANY, LIMITED, a corporation duly organized under the laws of the Dominion of Canada, and having an office at Brantford, Ontario, Canada, and also on Wayne Street, Piqua, Ohio, United States of America (assignees of George William Lorimer, of Piqua aforesaid, Electrician, acting for himself and as administrator of the estate of James Hoyt Lorimer, late of Piqua aforesaid, deceased). Automatic telephone exchange.

Extract from Specification.—This invention relates to that class of apparatus known as automatic exchanges, whereby any one of a number of substations—such, for instance, as telephone-subscribers' stations—may be put in electrical connection with any other substation, without requiring the services of central-office operators, through the automatic operation of central-office apparatus common to the substations, and controlled by them over wires or circuits connecting said substations with the central office. The object of the invention is to simplify and cheapen the apparatus, to make the same more reliable, and particularly to permit the system to be extended to serve a large number of substations without complicating the apparatus or increasing the number of connections and contacts, and the expense of construction, to a prohibitory degree, as is the case with systems of automatic exchange heretofore devised. In the present invention the exchange is divided into sections, to each of which are assigned and connected a particular number of the whole number of substations to be accommodated, and upon each section there is provided a number of sets of apparatus, which are normally idle or out of use, and constitute practically duplicates of one another, all adapted alike to be used by any one of the substations of the section for effecting connection with another substation on the same or on any other section. In practice as many sets or divisions of such duplicate connecting apparatus are employed as may be necessary to permit the maximum number of substations of the section to be accommodated that will probably desire to use the exchange at the same time. Experience having demonstrated that the maximum is, under ordinary commercial conditions, from seven to ten simultaneous connections, there would be provided in each section from seven to ten duplicate sets or divisions of connecting apparatus, although a greater or less number of sets or divisions might be used, depending upon the number of subscribers assigned to each section, or the number of simultaneous connections that will be probably required. In the following description the term "connector" is used to mean an electric switching-device comprising suitable fixed contacts in which a number of lines or circuits terminate, and suitable adjustable brushes adapted to be moved over said contacts and to be brought to rest in position upon one or more of them belonging to one of said lines or circuits. Each of the sets or divisions of apparatus embraced in one section comprises the following principal parts, to wit: (1.) A device termed "secondary connector," in whose contact-points all the lines of the section are represented, and which is employed for the purpose of establishing connection with any line of the section upon which it is located when the said line is called from some other line, the adjustable brushes or members of said connector being in connection, through suitable wires or circuits, not only with an interconnector in all the divisions or sets of apparatus in the same section, but with the similar apparatus in all the sets or divisions of all other sections. (2.) A device termed "interconnector" on each division, having contacts representing or joined not only to the secondary connector in the same division but in all other divisions of the same and all other sections, and having its adjustable brushes normally out of connection with the wires leading to the secondary connector, but in suitable connection with devices or circuits whereby connection may be established from any one of the wires or lines of the whole section to said brushes. (3.) Each division contains also, preferably, a device termed "primary connector," in whose contacts all the lines of a section are represented, while its brushes are capable of being placed in connection with the brushes of the interconnector, so that any calling line of a section with which connection is established by a primary connector may, through said primary connector and the interconnector in the same division, be placed in connection with the wire or circuit leading to an idle secondary connector on some one of the divisions of the same section, or, if the called subscriber be on another section, then with some one of the circuits leading to the primary connectors in the various divisions of such other section. Each of the several sets or divisions on each section contains also a device termed "rotary switch" for changing the connections of various parts of the apparatus in the same division with it at various stages of the operation, and a device termed "signal-transmitter controller," designed for use in conjunction with the particular kind of transmitting apparatus which is hereinafter described, and which it is preferred to use for the purpose of automatically transmitting the number of the subscriber to be called, and for causing the signal to operate upon the central office apparatus in the required manner. Also in each division there are certain relays termed "signal relay," "release relay," "ringing relay," &c., and a device termed "thousands register" which is employed when the exchange embraces more than a certain number of sections, say ten. These terms are used only for convenience of description. Some of the functions assigned in the following description to certain parts might be performed by other parts. On each section, and for the common use of all the subscribers thereof, there are devices termed "decimal indicator," "decimal register controller," and "division starter." The decimal indicator and division starter operate in conjunction to enable any line of the section to seize upon an idle division of connecting apparatus before described, and the decimal indicator also serves in conjunction with the decimal register controller to automatically adjust the primary connector in the division seized so that it shall establish connection from the calling line to the interconnector in the same division. Each section of this improved automatic exchange constitutes by itself a complete unit that can be used by itself as an exchange for a hundred subscribers, or in connection with other sections may be used for an exchange of as many hundreds of substations as there are sections. For an exchange of a thousand substations no addition to each of the ten unit sections employed would be required. When the exchange

is extended to a second thousand it is only necessary to employ upon each subdivision of each section an additional "interconnector" which is merely a duplicate of the interconnector which would be employed with the exchange when organized to accommodate a hundred subscribers, or any greater number up to 999. With this proviso, the apparatus for accommodating ten thousand substations would require little more than ten times the amount of apparatus and connections used for an exchange of a thousand, whereas with most systems heretofore employed the number of line contacts and the complication of apparatus increases as the square of the number of substations served. The thousands register before mentioned serves to select that one of the interconnectors in the same division with it which corresponds to the digit in the thousands place of the number for the substation called. For the purpose of reducing the distance or extent of movement of the parts which would be necessary to form a connection to one out of a hundred circuits, the connectors may consist of two switches whose movements are co-ordinated, one termed "cylinder switch" and the other "register." Upon one of said switches, the cylinder switch, the fixed contacts are divided into groups, and the brushes which ride over the respective groups are connected to contacts or points of a second switch which is termed the "register," and which may have its brushes adjusted to find the brush which rides upon the points of the particular group in the first-named switch where the circuit desired is represented. Instead of the above, two movements on intersecting lines might be given to a device carrying a brush or brushes, and by the coordination of these movements the particular group and contact-point desired in said group may be found. It is preferable, however, to use two independent switch-arms, one of which is adjusted to find the group of points in which the line desired is located, while the other is adjusted over the points of said group to select or find the particular point wanted. Each primary connector, secondary connector, and interconnector, according to this preferred plan, embraces therefore a switch having contacts or points for all of the lines or circuits with which connection is desired, and a second switch having a limited number of contacts connected respectively with brushes riding over the groups or subdivisions into which the contacts of the first-named switch are supposedly divided. The register portion of the device may be operated by means of a stepping or escape magnet. For the cylinder portion it is preferable to use a power constantly acting, which is coupled to and uncoupled from the shaft carrying the brushes by means of a suitable clutch magnetically controlled. The switches may, however, be adjusted and brought to rest in the desired position by any magnetic or electro-magnetic actuating or controlling device, as will be well understood by electricians. Interference between the lines of a section in the attempt to seize upon an idle division of apparatus in the same section is prevented by the action of the device termed "decimal indicator," which device embodies a circuit-changing arm closing circuit to the various lines successively, or one at a time. When a substation sends a call, the circuit-changing arm halts temporarily on the contact of the line calling, and does not resume its operation or movement until after said line has seized one of the idle divisions, after which the circuit-changer moves and permits any other line to seize upon some other idle division. The line calling is protected from seizure by any other line through the establishment of a guarding electrical potential the instant that it brings the circuit-changer to rest. This guarding potential governs the action of an electro-magnet which cuts off the flow of the controlling or releasing current by which the parts are set to position for effecting connection between a calling and a called line, as will be hereinafter more fully set forth. When calls come at the same instant from a number of lines upon different sections interference is prevented by spacing out the calls by means of a device termed "consecution controller," which acts as hereinafter described to render the apparatus of one section operative, and then the apparatus of another, and so on, in succession. This device supplements the spacing-out of the signals coming from two or more lines of the same section which is produced by means of the decimal indicator, which brings said lines into operative connection with the exchange in succession, and the two together absolutely prevent interference between substations that may endeavour at the same time to effect connection with the same substation.

[NOTE.—The number and length of the claims in this case preclude them from being printed, and the foregoing extract from the descriptive part of the specification is inserted instead.]

(Specification, £3; drawings, 13s.)

No. 14604.—11th March, 1902.—THOMAS BALLINGER, of Victoria Street, Wellington, New Zealand, Plumber. Improvements in skylights.

Claims.—(1.) In a skylight, wire clips pivoted to the vertical ribs of the bars or sides of a skylight, the said clips being bent upon themselves and provided with a kink to hold the glass at a distance from the vertical rib of the bar or sides of the skylight, substantially as and for the purposes set forth. (2.) In a skylight, in combination, angle strips along the edges of the glass, wire clips pivoted upon the vertical ribs of the bars or sides of a skylight, the said clips being bent upon themselves to bear upon both ridges of the angle strips, and kinks in the bottom bar of the clips to hold the angle strips close to the edge of the glass, and to secure the glass at a distance from the vertical rib of the bar or sides of the skylight, substantially as and for the purposes set forth. (3.) In a skylight, top and sides of the same comprising in one piece a gutter for carrying off water and for circulation of air, a vertical rib, a flashing extending outwardly from this rib, a turned-over rim to protect ventilation-holes in the sides of the gutter, substantially as and for the purposes set forth. (4.) In a skylight, in combination, an intermediate bar comprising a gutter on each side of a vertical rib, ventilation-holes near the top of the gutters, the rims of the gutters turned inwardly and downwardly to prevent water passing through the ventilation-holes, and wire clips pivoted to the vertical rib, the said clips being bent upon themselves and provided with a kink to hold the glass at a distance from the vertical rib of the bar or sides of the skylight, substantially as and for the purposes set forth. (5.) The skylight as described, comprising in combination sides and top formed with a gutter having a rim turned inwardly and downwardly, a vertical rib rising above the gutter, a flashing extending outwardly from the vertical rib, the said gutters, vertical rib, and flashing being in one piece of metal, the bottom of the skylight having a gutter, vertical member and flashing in one piece, and a gutter to catch condensed moisture, and holes for ventilation, intermediate bars formed with a gutter on each side of a vertical rib, ventilation-holes in the intermediate bars, angle strips along the edges of the glass, wire clips pivoted upon the vertical ribs of the sides and intermediate bars, the said clips being bent upon themselves to bear upon both ridges of the angle strips, and provided with a kink to hold the angle strips close to the glass, and to keep the glass at a distance from the vertical ribs, substantially as and for the purposes set forth. (6.) The combination and arrangement of parts comprising my improvements in skylights, substantially as set forth and illustrated.

(Specification, 5s.; drawings, 1s.)

No. 14606.—10th March, 1902.—MAURICE PERYER, of Christchurch, New Zealand, Porter. An improved composition for cleansing painted and varnished surfaces.

Description.—Composition consists of fine clay, whiting, sugar, common salt, borax, and pearl-ash in certain proportions.

Claim.—In cleansing painted and varnished surfaces, a composition consisting of the ingredients in the proportions approximately as specified, and applied substantially as set forth and described.

(Specification, 1s. 6d.)

No. 14611.—13th March, 1902.—JAMES THOMAS HUNTER, of Queen's Chambers, Wellington, New Zealand, Engineer (nominee of Frank Conrad, of 700, Whitney Avenue, Wilkinsburg, Pennsylvania, United States of America, Electrical Engineer). Improvements in instruments for indicating the phase-relation or the difference in frequency of two alternating or polyphase current circuits.

Claims.—(1.) For indicating the phase-relation or the difference in frequency of two alternating or polyphase current circuits, an instrument comprising stationary coils arranged to produce a rotary magnetic field and energised from one of the circuits, a stationary coil connected to the other circuit, and a rotatable magnetizable armature, which is in inductive relation to all the coils, substantially as described. (2.) For indicating the phase-relationship or the difference in frequency of two electric circuits, an instrument constructed substantially as described with reference to the drawings.

(Specification, 5s.; drawings, 1s.)

No. 14614.—13th March, 1902.—MICHEL BERNARD LÉON EHRMANN, of Pinkenba, near Brisbane, Queensland, Consulting Chemist, and the QUEENSLAND MEAT EXPORT AND AGENCY COMPANY, LIMITED, of Pinkenba, near Brisbane aforesaid, and Ross River, Townsville, Queensland aforesaid, and elsewhere. Improvements in joints for tins or cans.

Claims.—(1.) A joint composed of substances prepared originally in a liquid form, and in that condition run into place in the grooves or between the folds of the metal, said

joint becoming solid by the evaporation of the solvent, as described. (2.) A joint composed of substances prepared originally in a liquid form, and in that condition run into place between the folds of the metal, after which the metal may be further wrapped or tightened, said joint becoming solid by the evaporation of the solvent, as described.
(Specification, 2s.)

No. 14616.—13th March, 1902.—JOHN WISEMAN, of Auckland, New Zealand, Saddler. An improved gaiter.

Claim.—In gaiters of the class described, an ankle-piece secured to the folding-piece, such ankle-piece being made of thicker material than the folding-piece, and being provided with means for securing it round the wearer's ankle, and a strap for securing the folding-piece in the folded position, as set forth.
(Specification, 1s. 6d.; drawings, 1s.)

No. 14617.—13th March, 1902.—HIRAM JONES, of 99, South Street, Ascot Vale, County of Bourke, Victoria, Engineer. An improved machine for cutting tobacco, to be worked by hand, steam, or other motive power.

Claims.—(1.) In a machine for cutting tobacco, the combination of the holding-plate H with vertical springs H^2, substantially as described and shown. (2.) In a machine for cutting tobacco, the combination of horizontal spiral spring I^2 with loose collar I^3 working on plain part of screw I, and which causes the re-engagement of extended nut I^1 with screw I when the motion of ratchet wheel J is reversed, substantially as described and shown. (3.) The specified machine for cutting tobacco, constructed and arranged substantially as described and illustrated, as and for the purposes set forth, as a combination of parts.
(Specification, 2s. 6d.; drawings, 1s.)

No. 14619.—13th March, 1902.—GEORGE WATERS PITT, of South Molton Mansions, London, England, Gentleman, and EDWARD MARTIN, of 27, Park Lane, Stoke Newington, London, England, Engineer. Improvements in or relating to wheels and tires for vehicles.

Claims.—(1.) In wheels and pneumatic tires for vehicles, the combination of a felloe formed with serrations running alternately radially and circumferentially on each side, a steel band with or without grooves, and a flat ring on each side of a U-shaped band, and bolts for securing such rings in position, all substantially as set forth. (2.) In wheels and tires such as those described, forming the felloe (or felloe and flat rings) with projections or indentations, substantially as and for the purposes set forth.
(Specification, 3s. 6d.; drawings, 2s.)

No. 14620.—13th March, 1902.—WILLIAM THOMAS LOCKE TRAVERS, of Wellington, New Zealand, Solicitor (nominee of Robert Siegfried, of 315, Orchard Place, Pittsburg, Pennsylvania, United States of America, Electrical Engineer). Improved collector rings for electrical machines.

Claims.—(1.) For an electrical machine, a plurality of collector rings arranged side by side and having supporting arms that project into approximately the same plane, by means of which arms they are secured to a supporting ring. (2.) For an electrical machine, collector rings constructed and supported substantially as described with reference to the drawings.
(Specification, 3s. 6d.; drawings, 1s.)

No. 14628.—11th March, 1902.—ALEXANDER STORRIE DUNCAN, of Invercargill, New Zealand, Agricultural-implement Manufacturer. An improved hinge for farm gate or hurdle.

Claim.—A hinge for gate or hurdle consisting of a swivel frame carrying a roller, and a holder for swivel frame, substantially as shown in drawings and described.
(Specification, 1s. 9d.; drawings, 1s.)

No. 14636.—15th March, 1902.—FRANCIS WILLIAM PAYNE, of Dunedin, New Zealand, Consulting Engineer. Centrifugal tailings-stacker.

Claims.—(1.) In combination, for stacking tailings, a rotary box carried on an arm secured to a shaft caused to fill with tailings, to revolve slowly at first, increasing to great speed, returning slowly to its first position by means of gearing and a steam spring, substantially as set forth. (2.) In combination, a box in position under a tailings-chute forced to revolve slowly at first, and by the combined movements of levers, rods, and gearing, combined with a steam or similar spring, to revolve at great speed, throwing out the tailings, and continuing its revolution till it assumes the position for again being filled, all substantially as set forth and as described and explained.
(Specification, 3s.; drawings, 1s.)

No. 14638.—15th March, 1902.—PATRICK H. REARDON, of 24, First Street, San Francisco, California, United States of America, Mechanic. Improvements in pressure-regulators.

Extract from Specification.—This invention relates to a pressure-relieving device adapted to control the operation of power-driven air-compressors. The object of the invention is to provide a simple and efficient device to avoid the excessive and unnecessary duty on the engine driving an air-compressor after the maximum pressure required in the receiver is attained. This object is accomplished by means of the devices illustrated in the drawing, which shows a vertical section of the device. Referring to this drawing, 1 is a length of pipe or casing adapted to be interposed in the ordinary discharge-pipe of the compressor between the compressor and the receiver. The upper portion of this casing is slightly enlarged, and is provided with a valve opening upwards or in a direction of the receiver suitably guided to insure its proper seating, normally closed by the pressure in the receiver. A perforated hood or plate is located above this valve to protect the valve-guide from oil and dirt. Beneath valve in pipe, and preferably located transverse to said pipe, is a piston fitting snugly but freely movable in cylinder. The outer end of this cylinder is provided with a pass-by or passage connecting the end of the cylinder with the pipe or casing above the valve, and in free communication with the receiver-pressure, which pressure is thus constantly exerted upon the outer end of piston. Secured in piston is a stem or rod provided with a valve secured upon its other end. This valve is of somewhat peculiar construction, being provided with an annular extension with a cylindrical or inwardly projecting flange or rib. A valve is located and guided in an opening or port in the side of pipe, at the outer end of which opening is provided a suitable seat for valve, to form a valve-controlled opening to the exterior of pipe. Besides the valve-seat is an outer trued surface over which the cylindrical rib fits. A bell-crank lever is provided, pivoted upon a suitable bracket preferably attached to the pipe. The short arm of the bell-crank lever rests against the valve, preferably through the intervention of the hinged bearing-piece jointed to the upper end of arm, its free end bearing against the valve or stem to which the valve is secured. A suitable weight or counterpoise is adjustably secured upon the lever. The device is so simple that its operation is obvious from its construction, so that an extended description of its operation is not deemed necessary. The position of the weight on the lever determines the maximum pressure in the receiver; when this pressure is exceeded the pressure on piston overcomes the gravity of the weight and forces the valve open. Thus the engine thereafter simply works against atmospheric pressure instead of against the pressure in the receiver, the valve preventing the escape of air from the receiver. By reason of the annular flange of valve, when the valve is open ever so slightly the impact of the escaping air forces the valve more fully open and keeps it open. Without this arrangement of the valve the device would be of questionable efficiency. An ordinary valve under the conditions of this device would simply open sufficiently to allow the escape of the air above the desired pressure, the engine during the time of the escape working against the normal pressure in the receiver. By means, however, of the present described form of valve the reaction of the outgoing air forces the valve open and keeps it open, so that the engine is relieved of more than 85 per cent. of the normal load. When the pressure in the receiver falls the opposite result takes place, and the weight forces the valve to its seat and the air from the compressor raises valve and passes on to the receiver.

[NOTE.—The number and length of the claims in this case preclude them from being printed, and the foregoing extract from the specification is inserted instead.]

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

No. 14641.—20th March, 1902.—JOHN MARION RAUHOFF, of 1250, West 60th Street, Chicago, Illinois, United States of America. Mechanism for converting motion.

Claims.—(1.) Apparatus for converting rotary into reciprocating motion, for use in stirring and other machines, comprising a shaft provided with spiral grooves the walls of which flare, and a reciprocating head on said shaft provided with bearing-stems rotatably mounted therein on balls, and having tapered bearings entering said flaring grooves to engage the side walls thereof, each stem being mounted

in an adjustable journal-bearing entered into the head transversely of the shaft, and the axis of the bearings corresponding with radii of the shaft. (2.) In connection with the subject-matter of claim 1, providing each bearing-stem 35 with a bearing-cone 37, against which ball bearings are confined by an adjustable sleeve into which said stem enters and in which it is journalled. (3.) In connection with the subject-matter of claims 1 and 2, providing the adjustable sleeve 40 with a central rib or flange 41, between which and the cone 37 ball bearings 38 are confined, while other ball bearings 43 are confined between said rib and an adjustable cone 44 screw-threaded upon the end of the stem. (4.) In connection with the subject-matter of claim 1, operating the travelling-head 32 upon shaft 28 by means of a lever 9 journalled thereon and fulcrumed upon a swinging support 10, which yields to allow the lever to act upon the head in right lines. (5.) In connection with the subject-matter of claims 1 and 4, causing the return of the head 32 or lever 9 in one direction of their movement by means of a spring 14. (6.) In connection with the subject-matter of claim 1, mounting the spirally grooved shaft in at least two bearings in independent cross-bars of a one-piece or integral metal frame 5, attached to the cover of a stirring-receptacle or other suitable support. (7.) In connection with the subject-matter of claims 1 and 2, the modification represented in Fig. 6, wherein one of the ball-races is omitted and the stem *g* lengthened to project beyond the sleeve, and secured thereto by wire ring sprung into a circumferential groove in said stem.

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

No. 14642.—20th March, 1902.—JEAN BAPTISTE GERMEUIL BONNAUD, of 50, High Street, Dover, Kent, England, Chemist. Improvements in nitro-cellulose compounds for various useful purposes.

Claims.—(1.) The employment of gum copal dissolved in boiling castor-oil in nitro-cellulose preparations for coating substances. (2.) The improved nitro-cellulose coating mixture prepared substantially as described.

(Specification, 1s. 9d.)

No. 14643.—20th March, 1902.—ARTHUR STEPHEN PLEWS, of 2, Basinghall Avenue, London, England, Smelter. Process for the manufacture direct from the ore of white oxide of antimony and compounds thereof.

Claims.—(1.) The process for producing merchantable white oxide of antimony direct from the ore which comprises the following steps: (*a*) Roasting the crushed ore with smokeless fuel in a quick draught at a bright-red heat; (*b*) periodically changing the flame from an oxidising to a reducing flame, and *vice versâ*, as long as antimony fumes continue to be evolved; (*c*) subjecting the antimony fumes to the action of steam escaping under pressure; (*d*) collecting the mingled combustion products and steam in condensing-chambers having means for absorbing any traces of antimony from the exit gases. (2.) In the process for producing merchantable white oxide of antimony direct from the ore, drawing the escape from the condensing-chambers through a body of water, substantially as set forth. (3.) The improvements in the treatment of ores containing antimony substantially as above set forth with reference to the drawing.

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

No. 14644.—20th March, 1902.—JAMES PALMER CAMPBELL, of Wellington, New Zealand, Solicitor (nominee of Benjamin Garver Lamme, of 230, Stratford Avenue, Pittsburg, Pennsylvania, United States of America). Improvements in dynamo-electric generators.

Claims.—(1.) For an electrical machine, a rotatable member having an insulated winding completely imbedded in the core both at the ends and sides thereof, for the purpose specified. (2.) For an electrical machine, a rotatable member constructed substantially as described and shown in the drawings.

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

No. 14646.—20th March, 1902.—JOSEPH WARRING, Jun., of Marton, New Zealand, Farmer. An improved brake for traction engines.

Claims.—(1.) A brake for traction engines comprising, in combination, a bracket having a recess, a block in the recess, and a screw to force the block directly against the fly-wheel of the engine, substantially as and for the purposes set forth, and illustrated in the drawing. (2.) The combination and arrangement of parts comprising my improved brake for traction engines substantially as and for the purposes set forth, and illustrated in the drawing.

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

No. 14647.—20th March, 1902.—UNITED SHOE MACHINERY COMPANY, of Paterson, State of New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having their principal place of business at 205, Lincoln Street, Boston, Massachusetts, United States of America (assignees of Louis Amedee Casgrain, of Winchester, Massachusetts aforesaid, Inventor). *Improvements in machines for inserting fastenings.*

Extract from Specification.—This invention has for its object to improve machines for inserting fastenings, the improvements being herein shown as applied to a machine such as described in Letters Patent of the Colony of New Zealand No. 12837, dated 2nd August, 1900, said machine being adapted to drive a novel fastening of our invention. Many features of this invention are, however, applicable to any machine for inserting any kind of fastenings commonly employed to attach the soles of boots and shoes, or to secure together layers of material. One important feature of the invention herein shown and described is an attachment for a machine for uniting layers of material or attaching the soles of shoes, which consists in a device to form a cut or indentation in the stock, into which cut the fastening is inserted, said cut being subsequently closed to conceal the fastening. This device, in the form herein shown, operates intermittingly and forms a series of cuts or indentations in the stock, a separate cut for each fastening. Hitherto, in the manufacture of shoes in which an opening has been formed in the sole for the thread or fastenings by which the sole has been attached, it has been the practice to form a continuous channel in the sole, the lip of leather formed in making this channel being afterwards turned down to close the opening and conceal the fastenings. Forming a continuous cut or channel in the sole in this way, of course, greatly weakens the sole. By forming separate cuts or indentations in the stock and leaving solid leather between the cuts we obviate this weakening of the stock and preserve for the sole the original strength of the stock. There is also much less danger of the cuts opening in the wear of the shoe than when the channel is continuous. It is also the practice in forming continuous channels to make a wide cut from the edge of the stock inwardly. When the edge is trimmed the channel usually extends to or nearly to the edge of the sole, resulting in a considerable weakening of the edge. When separate cuts are made, as herein explained, the edge of the sole is untouched, and will therefore stand up much better. This continuous channel is cut in the outer sole before the shoe comes to the machine employed to unite the sole to the shoe, and also, by a separate operation, the channel-lip is turned back, opening the channel to receive the fastening-material. After the sole has been attached, cement is applied, by hand or by machine, to the channel-lip, and subsequently the channel-lip is turned over by another machine, or by hand, to conceal the fastenings. Prior to this closing of the channel the channel-lip should again be moistened to put it again in temper for the closing operation, although this step is sometimes omitted. An important feature of our invention consists in a device, also constituting an attachment for a machine for uniting layers of material or attaching the soles of shoes, which is adapted to be actuated in connection with the operation of said machine and said cutting-device, to close the cuts or indentations after the insertion of the fastenings. Closing the cuts or indentations immediately after the insertion of the fastenings is of material advantage, because the stock is still damp or "in temper," as it must be when the cuts are closed, and therefore can readily be pressed back into its original condition. The operation is more effective and permanent than it would be if the stock were permitted to dry before the cuts were closed and then dampened again preliminary to the closing operation. Also, closing the cuts immediately after inserting a fastening, and while the stock is still damp, obviates the expense of moistening the soles a second time, as should be done when the lip is closed at a subsequent operation by another machine or by hand. Of course, however, the greatest advantage of combining the mechanism for opening and closing the cut for the fastenings with the machine for inserting the fastenings is the great economy which results from doing away with separate machines and separate operations for opening and closing a channel for the fastenings. We prefer so to organize the machine and its attachments that the cut will be closed after the insertion of each fastening and before the insertion of the next fastening or the formation of the next cut. When the mechanism is so arranged, the cut is formed, the fastening is inserted in it, and the cut is closed, all while the stock is clamped between the presser-foot and the work-support, and so held continuously under pressure throughout these operations, and all before the stock is fed into position to receive the next fastening. The machine to be herein described is also provided, outside the end of the wire guide-way, and beyond the point where the wire is cut in the

formation of a fastening, with a wire-curver, represented as an eccentric secured adjustably to the lower end of the shaper. Other features of our invention will be hereinafter set forth and claimed at the end of specification.

[NOTE.—The number and length of the claims in this case preclude them from being printed, and the foregoing extract from the specification is inserted instead.]

(Specification, £1 8s.; drawings, 4s.)

No. 14649.—20th March, 1902.—WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of Benjamin Garver Lamme, of 230, Stratford Avenue, Pittsburg, Pennsylvania, United States of America). Improvements in systems of electrical distribution.

Claims.—(1.) The method of starting rotary transformers which consists in first supplying to the armature-winding, through a resistance, a direct-current electro-motive force of more than half but less than the full normal rotary-transformer voltage, and then supplying such voltage to the armature-winding through said resistance and a transformer. (2.) In a system of electrical distribution by rotary transformers, the arrangements for starting said transformers and bringing them to synchronous speed, substantially as described.

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

No. 14656.—21st March, 1902.—JAMES EDWIN GEE, of 2, Devonshire Square, London, England, Engineer. An improved apparatus for washing, scrubbing, and cleansing floors.

Claims.—(1.) An apparatus for washing, scrubbing, and cleansing floors, comprising a scrubbing-brush and a swab, a rod for manipulating the swab to which first a plain longitudinal movement and secondly a combined rotary and longitudinal movement are imparted by operating a handle or sleeve sliding longitudinally on the hollow handle carrying the brush, substantially as described. (2.) In an apparatus for washing and cleansing floors, comprising a wringable swab, mechanism whereby the said swab may be stretched or elongated and twisted or wrung at the same time by a single traversing movement of the operator's hand, substantially as described. (3.) In an apparatus for washing, scrubbing, and cleansing floors and the like, comprising a scrubbing-brush and a wringable swab, a holder for carrying one end of the swab, so constructed and arranged as to keep the swab when in use in its most effective form, as set forth. (4.) In an apparatus for washing, scrubbing, and cleansing floors, the combination with a scrubbing-brush, of a swab attached at one end to the bracket carrying the brush, of a rod located in the tubular handle to which the other end of the swab is attached, the said rod carrying or having a quick-pitched multiple screw-thread for a portion of its length and a screw-thread at its upper end, of a sliding nut engaging the said quick-pitched multiple-threaded screw, of a handle or sleeve sliding longitudinally on the tubular handle and connected to the said nut, of a screw-thread carried on the upper end of the handle and with which the screw on the top of the internal rod engages, and of mechanism for causing the said screw to engage with the female thread on the upper end of the said tubular handle at predetermined positions of the sliding handle or sleeve and internal rod, as set forth. (5.) In an apparatus for washing, scrubbing, and cleansing floors, the combination with a scrubbing-brush, of a swab attached at one end to the bracket carrying the brush, of a cup-shaped holder to which the other end of the swab is attached, of a rod located in the tubular handle on which rod the said cup-shaped holder is attached, the said rod carrying or having a quick-pitched multiple screw-thread for a portion of its length and a screw-thread at its upper end, and of a sliding nut engaging the said quick-pitched multiple-threaded screw, of a handle or sleeve sliding longitudinally on the tubular handle and connected to the said nut, of a screw-thread carried on the upper end of the handle and with which the screw on the top of the internal rod engages, and of mechanism for causing the said screw to engage with the female thread on the upper end of the said hollow handle at predetermined positions of the sliding handle or sleeve and internal rod, as set forth. (6.) An apparatus for washing, scrubbing, and cleansing floors constructed and arranged substantially as described and shown.

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

No. 14661.—19th March, 1902.—EDWARD WATERS, Jun., a member of the firm of Edward Waters and Son, Patent Agents, of Nos. 414–418, Collins Street, Melbourne, Victoria (nominee of Frederic Hamlet Long, of 84, Adams Street, Chicago, Illinois, United States of America, Chemist). Improvements in metallurgic filters.

Claims.—(1.) In metallurgic filters, the combination with the closed perforated tank having an internal fabric septum and external drip pan, of the feed-pipe opening into the tank-bottom and the separate wash-water pressure-tube, substantially as described. (2.) In metallurgic filters, the combination with the closed perforated tank having an internal fabric septum and external drip pan, of the feed-pipe opening into the tank-bottom and the separate wash-water pressure-tube united to said feed-pipe between the inlet and outlet valves thereof, substantially as described. (3.) In metallurgic filters, the combination with the closed perforated tank having an external drip pan and an internal fabric septum with stretcher-frame therefor to rest against the tank-walls, of the feed-pipe leading into the tank-bottom and the separate wash-water pressure-tube united to said feed-pipe between the inlet and outlet valves thereof, substantially as described.

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

No. 14662.—19th March, 1902.—EDWARD WATERS, Jun., a member of the firm of Edward Waters and Son, Patent Agents, of 414–418, Collins Street, Melbourne, Victoria (nominee of Frederic Hamlet Long, of 84, Adams Street, Chicago, Illinois, United States of America, Chemist). Improvements in electrolytic converters.

Claim.—In electrolytic converters, the combination with the closed reducer-vessel, having an open cross-partition, an upper set of anodes, a lower cathode, an intermediate diaphragm and suitable means for forcibly circulating the charge past the anodes above the diaphragm, of a separator vent-pipe opening from beneath the diaphragm and extended above the level thereof to afford free escape for refuse gases without materially lessening the pressure on the confined charge, substantially as described.

(Specification, 4s. 9d.; drawings, 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 copying the specification and drawings has 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, and the number.

Provisional Specifications.

Patent Office,
Wellington, 2nd April, 1902.

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

No. 14603.—10th March, 1902.—EDWARD TREHERNE TOWGOOD, YERBURY STEPHEN TOWGOOD, and JAMES ALLISON, all of Wanganui, New Zealand, Settlers. Improvements in tents and in the manner of pitching the same.

No. 14605.—8th March, 1902.—FRANK OAKDEN, of Dunedin, New Zealand, General Manager of the Millburn Lime and Cement Company, Limited. Improvements in the process of manufacturing Portland cement.

No. 14607.—10th March, 1902.—WILLIAM THOMAS, of Geraldine, New Zealand, Journalist. An improved process of printing.

No. 14608.—12th March, 1902.—GEORGE THOMAS HEPPELL, of Hokitika, New Zealand, Gold-dredging Agent. Improvements in or relating to the screens and tables of gold-saving dredges.

No. 14609.—12th March, 1902.—THOMAS STANLEY PHILPOTT, of Mein Street, Newtown, New Zealand, Saddler. An improved device for oiling axles of vehicles.

No. 14610.—11th March, 1902.—ERNEST GEORGE RAWNSLEY, of Christchurch, New Zealand, Accountant. Improved apparatus for use in playing the game of table tennis.

No. 14612.—13th March, 1902.—THE INVERTED INCANDESCENT GAS-LAMP SYNDICATE, LIMITED, having their registered offices at 9, New Broad Street, London, England, Manufacturers (assignees of Walter William Hare, of 12, Farringdon Avenue, London, England, Manager). Improvements in or connected with gas-burners.

No. 14613.—13th March, 1902.—HERMAN TAS, of 33, Cobden Street, North Melbourne, Victoria, Inventor. A new or improved bedstead.

No. 14621.—14th March, 1902.—JAMES PURKISS, of Halcombe, New Zealand, Commission Agent. Safety match-box.

No. 14622.—10th March, 1902.—ALEXANDER COLIN MURRAY, of Cromwell, New Zealand, Commission Agent. Improvements in taps.

No. 14623.—14th March, 1902.—CHARLES WHITTINGHAM WYCHERLEY, of 74, Willis Street, Wellington, New Zealand, Saddler and Harness-maker. Improvement for securing horse-covers in position.

No. 14624.—11th March, 1902.—ARTHUR ROWNTREE, of South Rakaia, Canterbury, New Zealand, Builder. An improved moustache-guard.

No. 14625.—14th March, 1902.—WILLIAM MORLEY BARTLE, of Napier, New Zealand, Painter. An improved apparatus for flushing water-closets.

No. 14626.—12th March, 1902.—JOSEPH JAMES MACKY and GEORGE HEFFLAND BIGELOW, of Victoria Arcade, Auckland, New Zealand, Agents. Improvements in nut-locks.

No. 14629.—15th March, 1902.—JAMES MORONEY, of Hastings, Hawke's Bay, New Zealand, Cab-driver. A combined girth and surcingle.

No. 14630.—13th March, 1902.—JAMES HENRY GRATTAN, of Avondale, Auckland, New Zealand, Machinist. An improved saw stripper and regulator.

No. 14631.—14th March, 1902.—FRANK HENRY WALDEMAR COWPER, of 125, Colombo Street, Christchurch, New Zealand, Manager in New Zealand of the Australian Manufacturing and Importing Company. Improvements in the game known as ping-pong.

No. 14632.—13th March, 1902.—JOSEPH JAY, of Greymouth, New Zealand, Civil Engineer. A furnace used in connection with a multitubular boiler for burning sawdust, shavings, and refuse from a sawmill and converting same into steam.

No. 14633.—18th March, 1902.—CHARLES EDWARD HODGE, of Telephone Department, Mercer, Auckland, New Zealand. An improved spark-arrester.

No. 14637.—15th March, 1902.—JAMES VINCENT FAHEY, of Roslyn Bush, Southland, New Zealand, Farmer. Improvements in the sheaf-carriers of harvesters.

No. 14645.—20th March, 1902.—JAMES ROBERTS JEWELL, of 119, Lygon Street, East Brunswick, near Melbourne, Victoria, Butcher, and WILLIAM HENRY JEWELL, of 3, Bent Street, Northcote, near Melbourne aforesaid, Paper-bag Manufacturer. Improved means of locking the wheels of carts and other road vehicles.

No. 14650.—20th March, 1902.—ISAAC HARRISON, Condiment-manufacturer, and EDWARD LEE KIRKLAND, Butcher, both of Wellington, New Zealand. An improved fire-escape.

No. 14651.—20th March, 1902.—JESSIE ELIZABETH LANGSTONE, Married Woman, FINLAY MCLEOD, Draper, and THOMAS JOSEPH BROOME, Dairyman, all of Wellington, New Zealand. An improved composition of materials for forming compressed fuel.

No. 14654.—20th March, 1902.—HORACE WILLIAM GOURLEY HENDERSON, of Dannevirke, New Zealand, Gas-manufacturer. An improved apparatus for the manufacture of carburetted water-gas.

No. 14655.—21st March, 1902.—FREDERICK RECHT and CHARLES LEE CURTIS, both of 143, Centre Street, City of New York, State of New York, United States of America, Manufacturers. Improvements in bottle closures and methods of producing the same.

No. 14657.—21st March, 1902.—JAMES SHEPHERD, of 14, Crawford Street, Dunedin, New Zealand, Engineer. Improvements in and relating to dredging machinery.

No. 14658.—21st March, 1902.—JAMES FORESTER MACKLEY, of Greymouth, New Zealand, Mechanical Engineer. An improved sole for boots, shoes, and the like.

No. 14659.—21st March, 1902.—ARCHIBALD LE BRETON FLEMING STRUTHERS, of Whangarei, Auckland, New Zealand, Settler. An improved folding towel-rack.

No. 14663.—21st March, 1902.—JOHN DENNISTON SMITH, of Pelichet Bay, Dunedin, New Zealand, Engineer. Improved hair-curler.

No. 14665.—20th March, 1902.—JAMES SALINGER, of Auckland, New Zealand, Engineer. An automatic device for immediately operating air-brakes on trains.

No. 14666.—22nd March, 1902.—KEITH CHARLES JACKSON and NORMAN EDMUND JACKSON, of Beaumont, Masterton, New Zealand, Sheep-farmers. Improved stock-mark.

No. 14667.—24th March, 1902.—HENRY MARK LEVINGE, of Wanganui, New Zealand, Bachelor of Medicine. Improved means for automatically igniting and extinguishing street gas-lamps.

No. 14669.—22nd March, 1902.—RICHARD ARTHUR, of Wynyard Road, Mount Eden, Auckland, New Zealand, Engineer. A means for discharging the waste products of combustion of a marine oil-engine without noise or smell.

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 20th March, 1902, to the 2nd April, 1902, inclusive:—

Nil.

F. WALDEGRAVE,
Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 10457.—The Haskin Wood-vulcanizing Company, Limited, treating wood (S. E. Haskin). 21st March, 1902.

No. 10462.—J. Barningham, E. T. O'Connell, and T. McCormack, cooking-range. 15th March, 1902.

No. 10595.—Nernst Electric Light, Limited, electric lamp (W. Nernst). 1st April, 1902.

THIRD-TERM FEES.

No. 7491.—W. J. Warner and W. Cowan, gas-meter. 20th March, 1902.

No. 7524.—W. Duffy, wood-block paving. 22nd March, 1902.

No. 7592.—J. B. Readman, obtaining cyanides and ferrocyanides. 20th March, 1902.

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. 13614.—The Colonial Ferro-concrete Syndicate, Limited, of 16, St. Helen's Place, London, England, metal and concrete structure. [G. L. Mouchel.] 19th March, 1902.

No. 13787.—The Colonial Ferro-concrete Syndicate, Limited, of 16, St. Helen's Place, London, England, concrete and metal partition. [G. L. Mouchel and C. Eliet.] 19th March, 1902.

No. 14129.—The Linotype Company, Limited, of 188, Fleet Street, London, England, feeding sheets to tape-drums. [E. Waters, jun.—The Linotype Company, Limited—E. T. Cleathero.] 19th March, 1902.

F. WALDEGRAVE,
Registrar.

Notice of Request to amend Application and Specification.

Patent Office,
Wellington, 2nd April, 1902.

REQUEST for leave to amend the undermentioned application for Letters Patent has been received, and is open to public inspection at this office. Any person may, at any time within one month from the date of this *Gazette*, give me notice in writing of opposition to the amendments. Such notice must set forth the particular grounds of objection, and be in duplicate. A fee of 10s. is payable thereon.

No. 14303.—29th November, 1901.—Thomas Farrer, of Mount Eden Road, Auckland, New Zealand, Watchmaker. An improved window-fastener.

(1.) To add after the name and address of the applicant in the application and specification the following names and addresses: "Edward Joseph Thorp, of Upper Queen Street, Auckland aforesaid, Gentleman, and Fanny Farrer, wife of the said Thomas Farrer."

The applicant states: "My reasons for making the amendments are as follows: That when making the application I omitted to include in it and the provisional specification the name of Edward Joseph Thorp, of Upper Queen Street, in the City of Auckland, Gentleman, and to obtain his signature to the papers, which I should have done, he being a part assignee of the invention for the 'improved window-fastener'; and I also omitted to include the name of Fanny Farrer, my wife, in, and to obtain her signature to, the said papers, which I should have done, she being a joint inventor with me of the said invention; and, further, because the said Edward Joseph Thorp and Fanny Farrer have requested me to have this amendment made, so that the Letters Patent may be issued in our joint names."

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 20th March, 1902, to the 2nd April, 1902, inclusive:—

No. 13627.—C. E. Wildbore, fire-alarm.
No. 13629.—G. Hyde, spoon.
No. 13633.—A. J. Park, saving gold, &c. (H. Park).
No. 13645.—J. Jennett and A. Allen, apparatus for relieving pressure on horse when vehicle-brake is applied.
No. 13651.—W. Waters, milking-appliance.
No. 13652.—W. C. Greig and A. C. Andrews, pencil-sharpener.
No. 13653.—F. Kettle, road-cleaner.
No. 13657.—W. P. Thompson, lighting and heating apparatus.
No. 13665.—H. J. Hardingham, milk cooler and aerator.
No. 13669.—A. J. Craig, preventing "racing" of marine engines.
No. 13670.—A. B. Jackson, C. L. Hansen, and A. P. Durant, window-lock.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent lapsed.

LIST of Applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 20th March, 1902, to the 2nd April, 1902, inclusive:—

No. 13004.—T. Boyd, cycle handle-bar.
No. 13037.—A. L. J. Tait, clothes-peg.

F. WALDEGRAVE,
Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of renewal fees from the 20th March, 1902, to the 2nd April, 1902, inclusive:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 10238.—W. H. and W. Cutten, cycle-driving gear.
No. 10240.—C. H. and G. Greaves, cycle-tire.
No. 10241.—J. Borsum, threshing-machine.
No. 10242.—H. Belcher, F. Easom, and F. Westwood, joint for tubular structures.
No. 10243.—The British Blahnik Arc Light Company, Limited, arc lamp.
No. 10246.—A. J. Chapman, fastening mail matter.
No. 10252.—C. A. Finch and H. J. Buchan, acetylene-generator.
No. 10257.—G. G. M. Hardingham, cycle-driving gear.

THROUGH NON-PAYMENT OF THIRD-TERM FEE.

No. 7351.—J. Armitage and A. and G. C. Herschell, round-about.

F. WALDEGRAVE,
Registrar.

Designs registered.

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

No. 148.—Louis Schatz and Co., of Colonial Mutual Buildings, Customhouse Quay, Wellington, New Zealand, Wholesale Jewellers. Class 1. 22nd March, 1902.
No. 149.—Frank Lindsay Ryan, of Christchurch, New Zealand. Class 1. 24th March, 1902.
No. 150.—S. Barry, of Palmerston North, New Zealand, Eyesight Specialist. Class 5. 25th March, 1902.
No. 151.—William James Jupp, of 132, Willis Street, Wellington, New Zealand, Wood-turner. Class 3. 26th March, 1902.

F. WALDEGRAVE,
Registrar.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, 2nd April, 1902.

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: 3701.
Date: 13th March, 1902.

TRADE MARK.

Electra

NAME.

VACUUM OIL COMPANY, incorporated under the laws of the State of New York, having its principal office at Rochester, in said State; and at 31, Queen Street, Melbourne, Victoria; 31, Victoria Street, Wellington, New Zealand; and elsewhere.

No. of class: 47.

Description of goods: Lubricating, heating, illuminating, solidified, and all other oils in this class.

No. of application: 3711.
Date: 14th March, 1902.

TRADE MARK.

The word

SUNSHINE

NAME.

ROSS AND ANSENNE, of Auckland, New Zealand, Ship-chandlers.

No. of class: 50.

Description of goods: Metal-polish.

No. of application: 3713.
Date: 18th March, 1902.

TRADE MARK.

The word

BANJO

NAME.

THE AUSTRALIAN MANUFACTURING AND IMPORTING COMPANY, of 125, Colombo Street, Christchurch, New Zealand.

No. of class: 49.

Description of goods: Tennis rackets, and rackets for the game of ping-pong.

No. of application: 3714.
Date: 18th March, 1902.

TRADE MARK.

The word

STEELITE.

NAME.

ROBERT FERGUS SMITH, trading as "Smith and Smith," Oil and Colour Men, of Octagon, Dunedin, New Zealand.

No. of class: 1.

Description of goods: Paint.

No. of application: 3715.

Date: 18th March, 1902.

TRADE MARK.

NAME.

FRANK CURTIS, of Christchurch, New Zealand, Manufacturer.

No. of class: 3.

Description of goods: Medicinal preparations.

No. of application: 3716.

Date: 19th March, 1902.

TRADE MARK.

The word

REX

NAME.

THOMAS INGLIS, Cycle-dealer, of Wellington, New Zealand (trading as "Inglis Bros.").

No. of class: 22.

Description of goods: Bicycles and motor-cars.

No. of application: 3720.

Date: 20th March, 1902.

TRADE MARK.

The word

DENSER.

NAME.

THOMAS M. HARDY, of Wellington, New Zealand, Photographer.

No. of class: 1.

Description of goods: Chemical substances used in photography.

No. of application: 3721.

Date: 21st March, 1902.

TRADE MARK.

The word

CAMEO.

NAME.

C. J. BADHAM, of Christchurch, New Zealand, Manufacturers' Agent.

No. of class: 50.

Description of goods: Fluid for polishing linoleum, furniture, and tan leather.

No. of application: 3723.

Date: 21st March, 1902.

TRADE MARK.

The word

SINOL

NAME.

SNOWDON, SONS, AND CO., LIMITED, of Lowe's Wharf, Millwall, in the County of London, England, Manufacturers.

No. of class: 47.

Description of goods: Lubricating substances included in this class.

No. of application: 3728.

Date: 26th March, 1902.

TRADE MARK.

The word

EXCELSIOR.

NAME.

ERNEST GEORGE RAWNSLEY, of Christchurch, New Zealand, Accountant.

No. of class: 49.

Description of goods: Parlour games, and more particularly table-tennis requisites.

No. of application: 3729.
Date: 27th March, 1902.

TRADE MARK.

The word

RESISTEEL.

NAME.

RICHARD JOHNSON AND NEPHEW, LIMITED, of Manchester, England.

No. of class: 5.
Description of goods: Fencing-wire.

No. of application: 3730.
Date: 1st April, 1902.

TRADE MARK.

The word

KING.

NAME.

WILSON, BALK, AND Co., of 12, Jetty Street, Dunedin, New Zealand, Coffee and Spice Manufacturers.

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

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 20th March, 1902, to the 2nd April, 1902, inclusive:—

No. 2822; 3591.—G. W. Wilton. Class 3. (*Gazette* No. 3, of the 9th January, 1902.)

No. 2823; 3625.—G. W. Bennett. Class 45. (*Gazette* No. 3, of the 9th January, 1902.)

No. 2824; 3633.—F. A. Tregelles. Class 39. (*Gazette* No. 3, of the 9th January, 1902.)

No. 2825; 3635.—The Australian Manufacturing and Importing Company. Class 49. (*Gazette* No. 3, of the 9th January, 1902.)

No. 2826; 3638.—The Gloy Manufacturing Company, Limited. Class 39. (*Gazette* No. 3, of the 9th January, 1902.)

F. WALDEGRAVE,
Registrar.

By Authority: JOHN MACKAY, Government Printer, Wellington.