



SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, MARCH 21, 1901.

Published by Authority.

WELLINGTON, THURSDAY, MARCH 21, 1901.

CONTENTS.

	Page
Patent Agent registered	737
Complete Specifications accepted	737
Provisional Specifications accepted	745
Letters Patent sealed	745
Letters Patent on which Fees have been paid	746
Subsequent Proprietors of Letters Patent	746
Request to amend Specifications	745
Request for Correction of Clerical Error	746
Applications for Letters Patent abandoned	746
Applications for Letters Patent lapsed	746
Letters Patent void	746
Design registered	746
Applications for Registration of Trade Marks	747
Trade Marks registered	748
Trade Mark Application withdrawn	748
Trade Mark Entry cancelled	748

Patent Agent registered.

Patent Office,
Wellington, 19th March, 1901.

IT is hereby notified that
PERCEVAL MANFIELD NEWTON,
of Wellington, New Zealand, has been registered as a Patent
Agent.

F. WALDEGRAVE,
Registrar.

Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 20th March, 1901.

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. 12471.—16th March, 1901.—ARTHUR RICHARDS, of John Street, Ponsonby, Auckland, New Zealand, Manufacturer of Wire Mattresses. A folding woven-wire mattress.*

Claim.—In a folding woven-wire mattress with hinged sides, and cranked bar attached to the hinges, and straps to connect mattress to the bedstead, substantially as set forth.

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

No. 12684.—12th June, 1900.—DAVID WILSON, of Mataura, New Zealand, Engineer. Apparatus for keeping weeds, &c., clear of the suction-pipes of dredges or other machinery.*

Claim.—The combination of a box having a bottom B, with sides of movable perforated plates C and dummies C', with grooved uprights D to carry same, and the outrigger A, braced to the box with braces G, all substantially as shown and described, and for the purposes set forth.

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

No. 12706.—29th June, 1900.—THOMAS MOORE BRYANT, of Whangarei, New Zealand, Salesman. An oscillating metallic under-carriage for an easy-chair.*

[NOTE.—The title in this case has been altered. See list Provisional Specifications, *Gazette* No. 59, of the 5th July, 1900.]

Claims.—(1.) A metallic under-carriage to carry a chair-body, formed by a combination of pieces of metal. (2.) A metallic under-carriage constructed of metal parts so arranged as to give an easy rocking, oscillating, vibrating motion, and intended to supersede or take the place of chair now in use, and known as "the platform rocker." (3.) A metallic under-carriage consisting of two round iron or steel frames (preferably of $\frac{1}{8}$ in.), on to which are bent, or pinched by force, eight iron or steel carriers—one at each of the four corners of each frame—each carrier to be fixed on in a reversed position, thereby giving the structure the motion sought for, and obtained when fixed to the upper chair, substantially as set forth.

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

No. 12713.—22nd June, 1900.—WILLIAM EWART GLADSTONE, of Invercargill, New Zealand, Lithographic Artist, and WILLIAM TAYLOR, of Invercargill aforesaid, Miner. Improvements in gold-saving appliances.*

Claims.—(1.) In gold-saving appliances, a table arranged in sections, each of which sections is formed with a number of transverse rows of holes or recesses, the recesses in each row being so arranged with regard to those in the row next

in order to it that they shall lie in a line midway between two of the recesses in such row, as and for the purposes specified. (2.) In gold-sawing appliances, a table arranged in sections, each of which sections is formed with a number of transverse rows of holes or recesses arranged in the manner set forth in the preceding claim, in combination with transverse ripples and gutters placed between each row of recesses, as and for the purposes described.

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

No. 12745.—29th June, 1900.—WILLIAM THOMPSON PURVES, of 47, York Place, Edinburgh, Scotland, Civil Engineer. Improvements in carburetters.*

Claims.—(1.) In carburetters of the gravity-flow type, the employment of siphon "draw-off" pipes or their equivalent, so placed as to render the apparatus self-starting, substantially as described and illustrated. (2.) A travelling port for the regulation of the amount of carburation required, substantially as described and illustrated. (3.) For motive purposes, the employment of a subsidiary carburettor at a higher level than the motor, for the purposes set forth above. (4.) For motive purposes, a carburettor with a higher portion which shall be above the motor, for the purposes set forth above. (5.) The arrangement and combination of an automatic-closing device on the air-inlet, which is actuated by the cock or other similar device for the turning on or off of the gas, substantially as and for the purposes set forth.

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

No. 13088.—23rd October, 1900.—JOHN BURNS, of 143, City Road, South Melbourne, Victoria, Engineer. An improvement in or relating to pumps.*

Claims.—(1.) In a pump designed to contain water in its working-barrel when the pump-valves are defective, a working-barrel arranged within an outer casing whereby an annular space is provided, the intake of the pump being at the top of said annular space, said working-barrel extending upwardly into a separate delivery-chamber, communication being given between the delivery-chamber and the annular space referred to by a minute hole (or holes) in the material of which the parts of the pump are constructed, substantially as and for the purposes herein specified, and illustrated in the drawing. (2.) In a pump designed to contain water in its working-barrel when the pump-valves are defective, a working-barrel arranged within an outer casing whereby an annular space is provided, the intake of the pump being at the top of said annular space, and said working-barrel extending upwardly into a separate delivery-chamber, communication being given between the delivery-chamber and the annular space referred to by a minute hole or holes in the material of which the parts of the pump are constructed, said hole being fitted with an inverted U-shaped tube, substantially as and for the purposes specified and illustrated. (3.) In a pump designed to contain water in its working-barrel when the pump-valves are defective, a working-barrel arranged within an outer casing whereby an annular space is provided, the intake of the pump being at the top of said annular space, and said working-barrel extending upwardly into a separate delivery-chamber, communication being given by a minute hole or holes between the annular space referred to and the delivery-chamber, and the extension of the working-barrel having a hole or holes through which water is allowed to escape from the delivery-chamber when, in consequence of defective pump-valves, water is escaping from the working-barrel, substantially as specified and illustrated. (4.) In a pump designed to contain water in its working-barrel when the pump-valves are defective, a working-barrel arranged within an outer casing whereby an annular space is provided, the intake of the pump being at the top of said annular space, and said working-barrel extending upwardly into a separate delivery-chamber, communication being given between the annular space referred to and the delivery-chamber by a hole fitted with a valve upon one end of a pivoted lever, the other end of said lever being provided with a float, the extension of the working-barrel having a hole or holes through which water is allowed to escape from the delivery-chamber when, in consequence of defective pump-valves, water is escaping from the working-barrel, substantially as specified and illustrated. (5.) The improvement in or relating to pumps, substantially as and for the purposes specified, and illustrated in the drawing.

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

No. 13260.—20th December, 1900.—JOHN LONG, of Springfield, Ohio, United States of America, Machinist. An improved mechanic's bench-vice.

Claims.—(1.) An improved vise having a supporting cylindrical post, a fixed jaw revolvably mounted thereon, with an opening for the guide-bar of the movable jaw, and for a

rocking block pivotally mounted therein bearing a nut, and arranged to be forced against the post by compressing the jaws, a guide-bar bearing a movable jaw arranged to slide in the fixed jaw, and a screw to compress said jaws, substantially as shown and described. (2.) An improved vise having a supporting cylindrical post, a fixed jaw revolvably mounted thereon with an opening for the guide bar of the movable jaw and for a rocking block, a rocking block pivotally mounted therein bearing a nut and arranged to be forced against the post by compressing the jaws and having rollers to bear the guide-bar, a guide-bar bearing a movable jaw arranged to slide in the fixed jaw, and a screw to compress said jaws, substantially as shown and described.

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

No. 13266.—20th December, 1900.—FRANCIS TEMPLE PAGE, of Penuhurst, Pahiatua, New Zealand, Farmer. An improved wire-grip, to be used in conjunction with wire-straining appliances.*

Claims.—(1.) In gripping-appliances for use with wire-straining apparatus, a pair of gripping-pieces that are each loosely articulated upon one of the arms of a pair of spring lever-arms, one of such gripping-pieces being formed with turned-down triangular portions upon its edges, while the other gripping-piece is formed with correspondingly turned-up portions, as and for the purposes set forth. (2.) In appliances for gripping wires while being strained, a pair of spring arms joined together at one end, and at the other ends provided with gripping-pieces (such as those referred to in claim 1) loosely articulated thereupon, in combination with a pulling chain or cable attached to the spring arms and connected with the straining-apparatus, as specified.

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

No. 13323.—15th January, 1901.—WILLIAM STRUTHERS, of 62, Post Office Chambers, Pitt Street, Sydney, New South Wales, Engineer (assignee of James Welman, of 61, Post Office Chambers aforesaid, Engineer). Improvements in bucket dredges.

Claims.—(1.) In bucket dredges, the use of one or more hydraulic jets directed into each bucket while it is tumbling, and having travelling motion and operation in conformity with the movement of each said bucket at that time, substantially as described and explained. (2.) In a bucket dredge, the combination with linked buckets and a tumbler of a nozzle or nozzles adapted to have radial motion and to have a regulated intermittent supply of high-pressure water, substantially as described and explained. (3.) In a bucket dredge, the combination with linked buckets and a tumbler and a partially revolvable water-supply pipe with nozzles thereon, of the devices for imparting radial motion to said nozzles, substantially as described and explained and as illustrated in the drawings. (4.) In a bucket dredge, the combination with linked buckets and a tumbler and a partially revolvable water-supply pipe with nozzles thereon, of the devices for regularly and intermittently cutting off and supplying high-pressure water to said pipe, substantially as described and explained and as illustrated in Figs. 1 and 2 and in Fig. 4 respectively of the drawings.

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

No. 13332.—13th March, 1901.—JOHN JAMISON, of Princes Street, Dunedin, New Zealand, Draper. An improved emergency brake, especially applicable to hill cable-trams.

Claims.—(1.) A brake designed to control or bring to an almost instantaneous stand a hill cable-tram car, being operated upon by a cable-attachment in contact with a sliding block in the grip-slot, causing the wheel-brake to act in a wedge-like fashion on the wheel, side and top of the rail, impelled by a horizontal and perpendicular movement, as minutely set forth in the plans and specifications. (2.) In railroad- or street-cars, a brake acting in a wedge-like fashion on wheel, side and top of rail, impelled by a horizontal and perpendicular movement as aforesaid, produced by foot- or lever-pressure from either end of the car, as described. (3.) In railway goods-wagons, a brake acting as in (2), operated on from either side of the wagon, but from one end only, as set forth.

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

No. 13367.—30th January, 1901.—CHARLES MARSHALL BUCKWORTH, of Whakatane, Auckland, New Zealand, Contractor. An improved method of branding and marking cheese.*

Claims.—(1.) The method of branding and marking cheese by the use of the plate letters, figures, or devices,

and serrulations, substantially as described and illustrated. (2.) In combination, the plate, the raised or embossed letters, figures, or devices thereon, and the rough or serrulated surface thereof, all for the purpose set forth, substantially as described and illustrated.

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

No. 13372.—7th February, 1901.—HANS ALBERT FRASCH, of Royal Hotel, Hamilton, Ontario, Canada, Chemical Engineer. Improved process of recovering and separating metals from their ores, and concentrates thereof.

Claims.—(1.) In an electrolytic process circulating independently through one and the same vessel, two electrolytes of different composition independent of and in contact with each other. (2.) In an electrolytic process, circulating two different electrolytes, one above and another below a diaphragm, substantially as described. (3.) In an electrolytic process, circulating two electrolytes through one and the same vessel, and regulating the overflow of the electrolytes by the difference of their specific gravities. (4.) The method of regulating the independent flow of two fluids of different specific gravity which consists in passing one of the fluids into and through a buoyant body supported by the other fluid, substantially as described. (5.) The method of extracting metals from their ores, and concentrates thereof, and simultaneously producing alkali, by electrolyzing a solution of a salt of an alkali, such as sodium-chloride, in the presence of an anode composed of such ores or concentrates, and thereby forming the corresponding salt of the metal contained in the ores or concentrates at the anode, and free alkali at the cathode. (6.) The method of extracting copper and nickel from matte, and simultaneously producing alkali, consisting in electrolyzing a solution of a salt of an alkali in the presence of an anode composed of copper-nickel matte, and thereby forming the corresponding salts of the metals contained in the matte at the anode, and a solution of alkali at the cathode. (7.) The method of separating metals from their ores which consists in providing an electrolytic bath with an anode composed of comminuted ore bearing the metals to be obtained, and circulating through the body of such anode an electrolyte capable of dissolving the metals and simultaneously electro-depositing from an independent electrolyte on suitable cathodes the metals to be separated. (8.) In the process of extracting metals from matte or ore by electrolysis, disintegrating or pulverising the metal-bearing matte or ore so as to render it freely permeable, distributing such substance over the bottom of the vessel in which the electrolysis is conducted, utilising it as an anode, and covering it with a permeable, granular, chemically inert substance, such as sand. (9.) The method of extracting metals from metal-bearing mineral substances and simultaneously producing alkali, by electrolysis, which consists in electrolyzing a solution of a salt of an alkali in the presence of an anode composed of a comminuted mineral substance containing the metals to be extracted, said anode being covered with a granular, permeable, chemically inert substance, a cathode being suspended in the electrolyte, and the electrolyte being circulated at will below and above the chemically inert substance. (10.) In the process of extracting metals from matte or ore by electrolysis, disintegrating or pulverising the metal-bearing matte or ore so as to render it freely permeable by the electrolyte, distributing such mass over the bottom of the vessel in which the electrolysis is conducted, and utilising it as an anode, covering it with a granular, permeable, chemically inert substance, and circulating an electrolyte capable of combining with the metals to be extracted through the anode below the inert substance and in contact with the cathode above the inert substance. (11.) The method of extracting metals from their ores or concentrates and simultaneously producing alkali by electrolysis, which consists in disintegrating or pulverising the metal-bearing mineral so as to render it freely permeable by the electrolyte, distributing such mass over the bottom of the vessel in which the electrolysis is conducted and utilising it as an anode, covering it with a granular chemically inert substance permeable by the electrolyte, and circulating an electrolyte consisting of a solution of a salt of an alkali through the mass of the anode below the inert substance and in contact with the cathode above the inert substance, and electrolyzing the alkali-salt solution, and thereby producing within the anode below the inert substance a solution of the corresponding salts of the metals contained in the anode, and a solution of alkali about the cathode above the inert substance. (12.) In the process of extracting metals from matte or ore by electrolysis, and simultaneously producing alkali, disintegrating or pulverising the metal-bearing matte or ore so as to render it freely permeable by the electrolyte, distributing such mass over the bottom of the vessel in which

the electrolysis is conducted and utilising it as an anode, covering it with a granular, permeable, chemically inert substance, and circulating an electrolyte capable of combining with the metals to be extracted through the anode below the inert substance, and electrolyzing a solution of the salt of an alkali in contact with the cathode above the inert substance. (13.) The method of exhausting an electrolyte by circulating the electrolyte in part through the body of a comminuted anode containing the metals represented in the electrolyte and in part past a suitable cathode, thereby exhausting the electrolyte which passes the cathode, and simultaneously producing a corresponding quantity of fresh electrolyte within the comminuted anode, substantially as described. (14.) In an electrolytic process, electrolyzing in a system of electrolytic baths one kind of electrolyte in all the baths, supplying different sections of the system of baths with soluble anodes differing in metallic substance and composition, and thereby producing several metallic solutions, each of different composition, and finally exhausting the initial electrolyte. (15.) In an electrolytic process, electrolyzing several solutions of metallic constituents differing from each other, in different sections of a system of electrolytic baths, supplying all the baths with soluble anodes of one composition, and, while severally depositing the metals represented in the different electrolytes on to the cathodes of the several sections of the system of baths, producing in all the baths but one and the same kind of fresh metallic solution. (16.) The method of separating, by electrolysis, metals from their ores, which consists in providing an electrolytic bath with an anode composed of comminuted ore bearing the metals to be obtained, circulating successively through a series of such anodes an electrolyte capable of dissolving the metals contained therein, and simultaneously circulating the electrolyte obtained from the whole series of anodes past the cathodes of one or more baths, and thereby depositing a selected metal, keeping the other metals in solution. (17.) The method of recovering copper, and separating nickel and cobalt from matte or ore, by electrolysis, which consists in providing a number of electrolytic baths with anodes composed of the matte or ore to be treated, electrolyzing the salt of an alkali in the first of the series of baths, and circulating the metal-bearing electrolyte thereby obtained at the anode successively through the anodes of all the baths, and circulating the electrolyte thus finally obtained through the cathode compartments of any desired number of the series of baths, and electro-depositing the copper, retaining the nickel and cobalt in solution. (18.) The method of recovering copper and separating nickel, cobalt, and other metals from matte or ore by electrolysis, which consists in providing a series of electrolytic baths with anodes containing the material to be treated, electrolyzing the salt of an alkali in a part of the series of baths, and circulating the metal-bearing electrolyte thereby obtained at the anodes successively through the anodes of the other baths next in series, returning the electrolyte to the cathode compartments of these baths and electro-depositing the copper, then returning the exhausted electrolyte again to the anode of the first bath, and re-passing it successively through the anodes of all the baths and thereby resaturating the electrolyte and enriching it constantly with nickel, cobalt, and other metals than copper. (19.) The method of exhausting an electrolyte composed of the salts of a number of metals, of an individual less electro-positive metal contained therein, and enriching the electrolyte with the more electro-positive metals, consisting in passing an electrolyte first through the anodes of a series of baths containing the metals represented in the electrolyte, then through the cathodes and depositing the least positive metal thereon, returning the electrolyte to the anode of the first bath in series, and passing it again through the series of anodes, and thereby constantly enriching the electrolyte with the more electro-positive metals. (20.) The method of recovering nickel from nickel-bearing mineral substances consisting in providing a series of electrolytic baths with anodes composed of the comminuted nickel-bearing substance to be treated, electrolyzing the salt of an alkali in the first section of the series of baths, electro-depositing the copper from the electrolyte thereby obtained in the next section of the series of baths, removing by suitable means the iron contained in the electrolyte derived from the whole series of baths after removal of the copper, and finally depositing the nickel upon suitable cathodes in the last section of the series of baths, and constantly producing fresh nickel-bearing electrolyte from the anodes of the whole series of baths. (21.) In an electrolytic process in which different kinds of metals are to be deposited in different baths under the same electric circuit, connecting serially a sufficient number of electrolytic baths in multiple to meet the requirements of the individual metals and balance the bath in the series which operates under the highest tension, substantially as described.

(Specification, 19s.; drawings, 1s.)

No. 13373.—7th February, 1901.—HANS ALBERT FRASCH, of Royal Hotel, Hamilton, Ontario, Canada, Chemical Engineer. Improved process of extracting and reducing metals by electrolysis.

Claims.—(1.) The method of producing an electrolyte which consists in electrolyzing a solution of a salt of an alkali in the presence of an anode containing metal or metals to be extracted, and thereby forming a double salt of the salt of the alkali and those metals contained in the anode whose hydroxides are soluble in a solution of alkali. (2.) The method of producing an electrolyte which consists in electrolyzing a solution of a salt of ammonium in the presence of an anode bearing metal or metals to be extracted, and thereby forming a solution of a double salt of ammonium and those metals contained in the anode whose hydroxides are soluble in ammonia. (3.) The method of recovering metals whose hydroxides are soluble in a solution of alkali, such as copper, nickel, and cobalt, from matte or ore, by electrolysis, which consists in forming, in connection with electric conductors, an anode of disintegrated or pulverised metal-bearing matte or ore which is freely permeable by an electrolyte, distributing such mass over the bottom of the vessel in which the electrolysis is conducted, covering said anode with a granular, permeable, chemically and electrically inert substance, and circulating a solution of a salt of an alkali through the body of the anode and the inert substance and past the cathode, substantially as described. (4.) The method of recovering metals whose hydroxides are soluble in ammonia, such as copper, nickel, and cobalt, from matte or ore by electrolysis, which consists in forming, in connection with electric conductors, an anode of disintegrated or pulverised metal-bearing matte or ore which is freely permeable by an electrolyte, distributing such mass over the bottom of the vessel in which the electrolysis is conducted, covering said anode with a granular, permeable, chemically and electrically inert substance, and circulating a solution of an ammonium-salt through the body of the anode and the inert substance and past the cathode, substantially as described. (5.) The method of separating, by electrolysis, metals from their ores whose hydroxides are soluble in a solution of alkali or ammonia, which consists in providing an electrolytic bath with an anode composed of comminuted ore, or concentrates thereof, bearing the metals to be obtained, circulating successively through a series of such anodes and past suitable cathodes an electrolyte capable of dissolving the metals contained therein, simultaneously electro-depositing a selected metal on the cathodes and thereby continuously removing such metal and enriching the contents of the solution with the other metals, substantially as described. (6.) The method of separating from their ores by electrolysis metals whose hydroxides are soluble in ammonia, which consists in providing an electrolytic bath, with an anode composed of comminuted ore, or concentrates thereof, bearing the metals to be obtained, circulating successively through a series of such anodes and past suitable cathodes a solution of an ammonium-salt, and thereby forming a double salt of the metal contained in the anode and the ammonium-salt, simultaneously electro-depositing a selected metal on the cathodes, and thereby enriching the solution with a double salt of the other metals and ammonium-salt, substantially as described. (7.) The method of recovering copper and separating nickel, cobalt, and other metals whose hydroxides are soluble in ammonia, from matte or ore by electrolysis, which consists in providing a number of electrolytic baths with anodes containing the metals to be extracted, electrolyzing a solution of a salt of ammonium in the first of the series of baths, and circulating the metal-bearing electrolyte thereby obtained successively through the anodes and past the cathodes of the baths next in series, thereby electro-depositing the copper on to the cathodes of the successive baths, and constantly enriching the electrolyte with nickel and cobalt, substantially as described. (8.) The method of recovering copper and separating nickel and cobalt from matte or ore by electrolysis which consists in providing a number of electrolytic baths with anodes containing the material to be treated, electrolyzing a solution of the salt of an alkali or ammonium in the first of the series of baths, and circulating the metal-bearing electrolyte thereby obtained successively through the anodes and past the cathodes of the baths next in series, thereby electro-depositing the copper on to the cathodes of the successive baths and constantly enriching the electrolyte with nickel and cobalt, and finally circulating the electrolyte past the cathode only of the succeeding bath, thereby depositing the last traces of copper and separating the remaining solution of nickel and cobalt. (9.) In the process of separating metals whose hydroxides are soluble in ammonia from their ores or concentrates by electrolysis, circulating an electrolyte consisting of a solution of an ammonium-salt between an anode and a cathode, substantially as described. (10.) The method of exhausting an electrolyte containing a number of metals, of an individual

less electro-positive metal contained therein, by circulating the electrolyte through an anode containing the metals represented in the electrolyte, and allowing part of the electrolyte to pass to the cathode in quantity equivalent to the electrolytic capacity which the cathodes represent under the existing electric tension, and removing the rest of the electrolyte directly from the anode without passing the cathode.

(Specification, 11s. 6d.; drawings, 1s.)

No. 13381.—7th February, 1901.—EUREKA SHOE COMPANY, a corporation organized under the laws of the State of New Hampshire, and having a place of business in Manchester, New Hampshire, United States of America (assignees of Arsene Herbert, of Manchester aforesaid, Machinist). Hand tacking-tools.

Claims.—(1.) In a magazine hammer, the combination of a hammer-head, a tack-channel therein leading to the nose thereof, a tack-stop at the bottom of the tack-channel, a tack-guard above the tack-stop mounted adjacent to and susceptible of movement across the tack-channel, in such manner that a movement of the hammer which tends to throw a tack back from the tack-stop also moves the tack-guard across the tack-channel. (2.) In a magazine hammer, the combination of a hammer-head, a tack-channel therein leading to the nose thereof, a tack-stop at the bottom of the tack-channel, a tack-guard above the tack-stop hung adjacent to and susceptible of being moved across the tack-channel, and a tack-guard actuator movably mounted in such manner that by its motion in response to a movement of the tool which tends to throw a tack back from the tack-stop it actuates the tack-guard to close the tack-channel. (3.) In a magazine hammer, the combination of a hammer-head, a tack-channel therein, a tack-stop in the tack-channel, a tack-guard consisting of a latch provided with a tack-engaging finger adjacent to and movable into the tack-channel above the tack-stop, and a tack-guard actuator consisting of a movable weight so supported that movement of the said actuator in response to a movement of the hammer which tends to throw a tack back from the tack-stop is communicated to the tack-guard, and the tack-guard finger is thereby moved into the tack-channel. (4.) In a magazine hammer, the combination of a hammer-head, a tack-channel therein, a tack-stop at the bottom of the tack-channel consisting of a movable stop-block, a tack-guard mounted in the tack-stop block and provided with a tack-engaging finger adjacent to and movable into the tack-channel above the tack-engaging point of the tack-stop, and a tack-guard actuator consisting of a movable weight supported in the tack-stop block in such manner that movement of the said actuator in response to movement of the hammer which tends to throw a tack back from the tack-stop is communicated to the tack-guard, and the tack-guard finger thereby moved into the tack-channel. (5.) In a magazine hammer, the combination of a hammer-head, a tack-channel therein, a tack-stop at the bottom of the tack-channel, a tack-guard consisting of a pivoted latch having a finger adjacent to and movable into the tack-channel above the tack-stop and a projection in operative connection with a tack-guard actuator, and the tack-guard actuator, consisting of a pivoted lever whereof one end is weighted and the other is in operative connection with the aforesaid projection on the tack-guard, the tack-guard and actuator being so proportioned and arranged that movement of the weighted end of the actuator in response to a movement of the hammer which tends to throw a tack back from the tack-stop is communicated to the tack-guard, and the finger thereof moved into the tack-channel. (6.) In a magazine hammer, the combination of a hammer-head, a tack-channel therein, a tack-stop at the bottom of the tack-channel consisting of a pivoted stop-block centrally slotted and provided with a tack-guard in the slot and pivoted to the stop-block, and with a tack-guard actuator in the said slot and pivoted to the stop-block, the tack-guard provided with a finger adjacent to and movable into the tack-passage, and a projection in juxtaposition to the actuator, the actuator consisting of a lever juxtaposed to the tack-guard projection at one end and weighted at the other, all arranged in such manner that movement of the weighted end of the actuator in response to movement of the hammer which tends to throw a tack back from the tack-stop causes the tack-guard finger to move into the tack-channel. (7.) In a magazine hammer, the combination with a hammer-head, a tack-channel, and a tack-stop, of a tack-guard L, having a finger L^1 , and a projection L^2 , and pivot k^3 , and a tack-guard actuator M, having a weighted end m^1 , projection m^2 , and pivot m^3 , substantially as described. (8.) In a magazine hammer, a hammer-head having a tack-channel therein leading to the nose thereof, a plunger within said channel, a spring-actuated tack-stop at the bottom of the tack-channel adapted to be moved by and for the passage of said plunger

and a tack, and an automatic tack-guard adapted to prevent a tack from being thrown out of the line of said plunger. (9.) In a magazine hammer, a hollow hammer-head having a tack-channel leading to the nose thereof, a plunger therein, a spring-actuated tack-stop at the nose of the hammer-head, movable by and for the passage of the plunger, and a tack-guard consisting of a latch loosely mounted in the hammer-head in such a manner that a movement of the hammer which tends to dislodge a tack from the line of the plunger moves the latch into the tack-channel, sufficient space being provided for a tack in the tack-channel between the tack-guard and the tack-stop. (10.) In a magazine hammer, the combination of a tack-hopper and raceway, and a tack-retaining shoe suspended over the raceway and counterweighted so that the same movement of the tool which tends to throw tacks out of the raceway depresses the shoe. (11.) In a magazine hammer, the combination of a tack-hopper and raceway, and a tack-retaining shoe pivoted at the entrance of the raceway, and counterweighted so that the same movement of the tool which tends to throw the tacks out of the raceway depresses the shoe. (12.) In a magazine hammer, the combination of a tack-hopper and raceway, and a pivoted tack-retaining shoe suspended over the raceway and provided with a counterweight, the said shoe being normally lifted away from the gathering-blades by the counterweight, and so proportioned with relation to the counterweight that a movement of the tool which tends to jerk tacks out of the raceway also lifts the counterweight and depresses the shoe. (13.) In a magazine hammer, the combination of the tack-hopper D, raceway blades E, shoe S' pivoted at s², and counterweight s², all substantially as described.

(Specification, £1; drawings, 2s.)

No. 13424.—21st February, 1901.—ALFRED SMITH, of High Street, Christchurch, New Zealand, Electrician. Improved combined measure and cost-indicating apparatus.

Claims.—(1.) In a machine for indicating the cost of goods sold by lineal measurement, a spring-driven roller having cost-markings in longitudinal and circumferential columns upon its periphery, such roller being controlled by ratchet and escapement gearing operated by tappets placed at intervals upon a measuring-staff whereby one or other of the longitudinal columns of figures is brought into position in relation to a fixed indicating-scale, substantially as specified and illustrated. (2.) A roller having cost-markings in longitudinal and circumferential columns upon its periphery, an indicating-scale fixed above it denoting the prices to which the circumferential columns are devoted, a spring for revolving the roller, and a ratchet wheel upon the roller-axle, controlled by an escapement, whereby one or other of the longitudinal columns is brought into indicating-position; slide-bars for operating and differentiating the action of the escapement, and tappets fixed upon bell-crank levers for operating the slide-bars, substantially as and for the purposes described and illustrated. (3.) The spring-driven roller *a*, the ratchet escapement wheel *e*, journaled upon the roller-axle and revolving with it in one direction, the pivoted loop *h*, and the spring *w*, the pawl-pin *i*, normally engaging the wheel *e*, the lever *k* upon the boss *h*^s, having a pawl-pin *l* engaging wheel *e* when the loop is vibrated, the spring *x* operating upon lever *k*, and the stop-pin *y*, the whole substantially as described and illustrated. (4.) The spring-driven roller *a*, the ratchet wheel *e*, fixed upon a sleeve journaled upon the roller-axle, an arm *f* upon the sleeve having a pawl *g*, engaging with a ratchet wheel *g* fixed upon the axle, the sheave *u* and the cord *u* coiled around it for returning the roller to starting-point, substantially as specified and illustrated.

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

No. 13445.—5th March, 1901.—JAMES WEBSTER, of 8, 10, and 12, Market Street, Melbourne, Victoria, Merchant. An improvement in tins or cans to facilitate the opening thereof.

Claim.—The described improvement in tins or cans to facilitate the opening thereof, consisting in forming indents on the lid, making a transverse slit between said indents, and soldering or otherwise affixing a projecting lug or tongue at or about said slit, and sealing the latter.

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

No. 13447.—6th March, 1901.—HENRY BAKER BLACKINTON, of Winthrop, Maine, United States of America, Apothecary; WILLIAM FRANCIS COX, of Milton, Massachusetts, United States of America, Merchant; and MAURICE EDWIN GRINN, of Winchester, Massachusetts aforesaid, Real Estate Merchant. Improvements in machines for covering boxes.

Claims.—(1.) The combination of a rotary box-holder upon which the box is mounted, a press-roll which rotates said box and its holder by frictional contact with said box and presses the covering-strip on said box, a cutting-mechanism for severing the covering-strip, and a driving-mechanism. (2.) The combination of a rotary box-holder upon which the box is mounted, a press-roll which rotates said box and its holder by frictional contact with said box and presses the covering-strip on said box, a cutter, a lever upon one end of which is mounted said cutter and the other end of which is controlled by a cam, said cam, and a driving-mechanism. (3.) A mechanism for feeding the covering-strip, comprising the combination of a supporting frame, a movable guideway, and mechanism for reciprocating said movable guideway. (4.) A mechanism for feeding the covering-strip, comprising the combination of a supporting frame, a reciprocating guideway through which said strip passes, a cam controlling said reciprocating guideway, mechanism for connecting said cam and said guideway, and a driving-mechanism. (5.) A mechanism for feeding the covering-strip, comprising the combination of a supporting frame, a reciprocating guideway through which said strip passes, a cam controlling said reciprocating guideway, mechanism for connecting said cam and said guideway, and a driving-mechanism. (6.) A mechanism for feeding the covering-strip, comprising the combination of a supporting frame, a reciprocating guideway through which said strip passes, mechanism mounted on said guideway for engaging said strip, and mechanism for reciprocating said guideway. (7.) The combination of a box-holder, a press-roll, a cutting-mechanism for severing the covering-strip, and mechanism for feeding said strip after it is severed. (8.) The combination of a rotary box-holder upon which the box is mounted, a press-roll which rotates said box and its holder by frictional contact with said box and presses the covering-strip on said box, a cutting-mechanism for severing the covering-strip, and mechanism for feeding said strip after it is severed. (9.) The combination of a rotary box-holder upon which the box is mounted, a press roll which presses the covering-strip on said box, a cutting-mechanism for severing the covering-strip, a finishing-roll into contact with which the box is thrown after said strip is severed, and a driving-mechanism. (10.) The combination of a rotary box-holder upon which the box is mounted, a press-roll which rotates said box and its holder by frictional contact and presses the covering-strip on said box, a cutting-mechanism for severing the covering-strip, a finishing-roll formed with a flange for turning an edge portion of the strip over the mouth of the box after said strip is severed, and a driving-mechanism. (11.) The combination of a rotary box-holder upon which the box is mounted, a press-roll which presses the covering-strip on said box, a cutting-mechanism for severing the covering-strip, a finishing-roll into contact with which the box is thrown after said strip is severed, mechanism for pressing an edge portion of said strip upon the bottom of the box, and a driving-mechanism. (12.) A box-covering machine comprising the combination of a driving-mechanism, a supporting frame, a rotary box-holder upon which the box is mounted, a press-roll which presses the strip on the box, a cutting mechanism for severing the strip, mechanism for feeding the strip after it is severed, a finishing-roll, and mechanism for pressing an edge portion of the strip against the inner side-walls of the box. (13.) A box-covering machine comprising the combination of a driving-mechanism, a supporting frame, a rotary box-holder upon which the box is mounted, a press-roll which rotates the box and its holder by frictional contact and presses the strip on the box, a cutting-mechanism for severing the strip, mechanism for feeding the strip after it is severed, a finishing-roll, and mechanism for pressing an edge portion of the strip upon the bottom of the box. (14.) A mechanism for pressing an edge portion of the covering-strip upon the inner side-walls of the box, comprising the combination of a box-holder upon which the box is mounted, an arm in which is journaled the shaft upon which said box-holder is mounted, said shaft, a plunger mounted upon and slidable along said shaft, and a lever mounted upon said arm for forcing said plunger into the box. (15.) A cutting-mechanism for severing the covering-strip, comprising the combination of a supporting frame, a driving-mechanism, a cam rotated by said driving-mechanism, a lever one arm of which is controlled by said cam and the other arm of which carries a cutter, and said cutter. (16.) A mechanism for pressing the covering-strip against the inner side-walls of the box, comprising the combination of a box-holder upon which the box is mounted, a plunger mounted upon and free to slide along the shaft of said box-holder, and means by which said plunger is moved along said shaft into the box. (17.) In a box-covering machine, the combination of a rotary box-holder upon which the box is mounted, a flanged press-roll which rotates said box and its holder by frictional contact with said box, and presses the covering-strip on said box, the flange on said press-roll turning an edge portion of said strip inwardly over the edges of the side-walls of the box, and

mechanism for rotating said press-roll. (18.) In a box-covering machine, a mechanism for rotating the box, comprising the combination of a rotary box-holder upon which the box is mounted, a press-roll which rotates said box and its holder by frictional contact with said box, and presses the covering-strip on said box, and mechanism for rotating said press-roll.

(Specification, 9s. 6d.; drawings, 4s.)

No. 13450.—6th March, 1901.—PERCY ARTHUR HADLEY, of Albert Street, Auckland, New Zealand, Merchant. Improvements in printing-machines for the production of black and colour prints by the one impression.

Claims.—(1.) In printing-machines of the classes set forth, the combination and arrangement with the ordinary ink-duct and distributing-rollers of a recessed roller or distributor in such a way that the black or primary ink is transferred in bands or stripes on to the final distributor or type or bed, substantially as described and explained. (2.) In printing-machines of the classes set forth, the combination and arrangement with the ordinary ink-duct and distributing-rollers and a recessed roller or distributor, as set forth in the preceding first claim, of an additional ink-duct containing one or more coloured inks adapted to be distributed upon the blank spaces of the final distributor or the type or bed, substantially as described and explained. (3.) In printing-machines of the classes set forth, the combination and arrangement with the ordinary ink-duct and distributing-rollers and a recessed roller or distributor, as set forth in the preceding first claim, of divisions in the ink-duct adapted to hold one or more coloured inks which may be distributed by an additional series of rollers to the final distributor or the type or bed, substantially as described and explained. (4.) The combination with the final distributing-roller of a recessed waver-roller to evenly spread the primary ink on said final distributing-roller in bands of the required widths, substantially as described and explained. (5.) The combination and arrangement with a final distributing-roller, a slightly recessed or partly lowered bed or type, a packed impression-cylinder, and cams and ramps to lift said final distributing-roller and to lower same on to the recessed part of the bed or type, of an additional final distributing or feed roller of coloured ink or inks in bands or stripes, substantially as described and explained.

(Specification, 9s. 6d.; drawings, 3s.)

No. 13453.—7th March, 1901.—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, Electrical Engineer). Improvements in systems of electrical distribution.

Claim.—A system of alternating-current distribution in which an alternating-current circuit and a direct-current circuit, respectively supplying energy to translating devices, are interconnected through a rotary transformer, the field-magnet of which is excited by a direct-current machine which is either driven by an alternating-current motor energised from the alternating-current circuit or is mechanically coupled to the shaft of the rotary transformer.

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

No. 13454.—7th March, 1901.—ERNEST ROWLAND HILL, of 814, Maple Avenue, Wilkingsburg, Pennsylvania, United States of America, Electrical Engineer. Improvements in or relating to electro-pneumatic controlling systems.

Claims.—(1.) A pneumatically operated controller, the step-by-step operation of which is automatic, having means which insure the stoppage of the movement of the controller-drum at predetermined positions corresponding to certain desired connections of the motors controlled thereby. (2.) For stopping the movement of an automatically operated controller, an automatic switch which electrically governs the operation of the controller, and means carried by the controller for co-operating with the movable member of said switch, which stops its operation, and thereby the movement of the controller, at predetermined positions of the latter. (3.) In a controlling-system for railway vehicles having an electrically governed pneumatically operated controller, a magnet connected to the power or motor circuit, which operates to maintain the controller-governing circuit closed under normal conditions, but to open the said governing circuit and thereby return the controller to its zero position a predetermined time after the energy from the power circuit falls off or ceases. (4.) In a controlling system for electrically propelled railway vehicles, an automatic circuit-breaker which is combined with the reversing-switch for the motors in such a manner that the operation of the reversing-switch causes the circuit-breaker to close the circuit, but

only after the operation of the reversing-switch is completed. (5.) In a controlling system for electrically propelled railway vehicles, an automatic circuit-breaker which is combined with the controller for the electric motors in such a manner that the circuit-breaker is prevented from being operated to close the circuit except when the controller is in the zero or "off" position. (6.) In a controlling system for electrically propelled railway vehicles, an automatic circuit-breaker, so combined with the motor-controller that the latter cannot be operated when the circuit-breaker is open. (7.) In a controlling system for electrically propelled railway vehicles, an automatic circuit-breaker combined with the controller for the electric motors in such a manner that when the circuit-breaker opens it causes the motor-controller to return to its zero or "off" position. (8.) In a controlling system for electrically propelled railway vehicles, devices constructed substantially as described with reference to Fig. 1, or to Fig. 2, or to Figs. 3 and 4, or to Fig. 5, or to Figs. 7 and 8 of the drawings, and operating as and for the purposes specified.

(Specification, 15s.; drawings, 2s.)

No. 13455.—7th March, 1901.—GEORGE GARIBALDI TURRI, of Salisbury Building, Queen Street, Melbourne, Victoria, Patent Agent (nominee of Francis Nesbitt Cullen, of 4, Queen Street East, Toronto, Ontario, Canada, Merchant). Improvements in or relating to pedals of bicycles or other foot-propelled vehicles.

Claims.—(1.) A folding-pedal embracing in its construction a hub, and a foothold hinged to the hub, substantially as specified. (2.) A folding-pedal embracing in its construction a hub, and a foothold hinged to the hub capable of being folded against the crank when inoperative, or arranged at right angles thereto when operative, substantially as specified. (3.) A folding-pedal embracing in its construction a pedal-shaft, a revolvable hub mounted on the pedal-shaft, a counterbalance for the hub, and a foothold hinged to the hub, substantially as specified. (4.) A folding-pedal embracing in its construction a pedal-shaft, a revolvable hub mounted on the pedal-shaft, a foothold hinged to the hub, and anti-friction journals for the hub and the pedal-shaft, substantially as specified. (5.) A folding-pedal embracing in its construction a revolvable pedal-shaft, a hub mounted on the pedal-shaft, a foothold pivotally connected to the hub in combination with the pedal-crank having a transverse bore in its outer end to receive the pedal-shaft, substantially as specified. (6.) A folding-pedal embracing in its construction a revolvable pedal-shaft, a hub mounted upon the pedal-shaft, a counterbalance for the hub, outwardly directed arms connected to the hub, a foothold pivotally connected to the arms in combination with the pedal-crank having a transverse bore to receive the pedal-shaft, substantially as specified. (7.) A folding-pedal embracing in its construction a revolvable pedal-shaft, a hub mounted on the pedal-shaft, a foothold pivotally connected to the hub, and adjusting-cones mounted on the pedal-shaft in combination with the pedal-crank, a transverse bore in the outer end of the pedal-crank, having at its ends cup-shaped bearings opposed to the adjusting-cones, and anti-friction balls interposed between the adjusting-cones and bearing-cups, substantially as specified. (8.) A folding-pedal embracing in its construction a revolvable pedal-shaft, a hub mounted upon the pedal-shaft, a counterbalance for the hub, outwardly directed arms connected to the hub, heads revolvably mounted on the outwardly directed arms, a foothold rigidly connected to the revolvable heads, adjusting-cones mounted on the pedal-shaft in combination with the pedal-crank, a transverse bore for the pedal-crank having its ends cup-shaped, bearings opposed to the adjusting-cones, and anti-friction balls interposed between the adjusting-cones and cup-shaped bearings, substantially as specified. (9.) The folding-pedal described and illustrated in Figs. 1, 2, and 3 of the drawings. (10.) The folding-pedal described and illustrated in Figs. 4, 5, 6, and 7 of the drawings. (11.) The folding-pedal described and illustrated in Figs. 8 and 9 of the drawings.

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

No. 13458.—7th March, 1901.—BIRGER LJUNGSTROM, of 18, Grefmagnigatan, Stockholm, Sweden, Engineer. Improvements in or relating to the endless curved tracks of balanced rotary steam-engines.

Claims.—(1.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; supporting the said endless track in or from a stationary framework or casing by mechanical means, in such a manner that the points of support of the track are

movable relatively to the said framework or casing, whereby the bending or vibratory motions of the track are not communicated directly to the casing, substantially as set forth. (2.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; supporting the said endless track in or from a stationary casing or framework by an elastic medium in such a manner that the bending or vibratory motions of the track are insulated from the framework or casing, substantially as set forth. (3.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; supporting the said endless track in or from a stationary framework or casing by means of links, one end of each link being pivoted to the said casing and the other end to the track, whereby the bending or vibratory motions of the track are not communicated directly to the casing, substantially as described. (4.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; supporting the said endless track in or from a stationary framework or casing by fitting or forming the said track with radial tongues entering corresponding guides in or on the casing or framework, the tongues being capable of motion within the guides, whereby the bending or vibratory motions of the track are not communicated directly to the casing, substantially as described. (5.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; supporting the said endless track in or from a stationary framework or casing by means of springs interposed between the said track and the framework, or interposed between parts by which the track is carried and the said framework or casing, substantially as described. (6.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; supporting the said endless track in or from a stationary framework or casing, by means of elastic bars extending transversely of the track, whereby the bending or vibratory motions of the track are not communicated directly to the casing, substantially as described. (7.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; supporting the said endless track in or from a stationary framework or casing by adjustable tangentially directed pivoted links or bars in combination with or without springs, whereby the bending or vibratory motions of the track are not communicated directly to the casing, substantially as set forth. (8.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; the construction of devices for supporting the said endless track in or from a stationary casing or framework, arranged and acting substantially as described with reference to Figs. 1 and 2 of the drawings. (9.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; the construction of devices for supporting the said endless track in or from a stationary casing or framework, arranged and acting substantially as described with reference to Fig. 3 of the drawing. (10.) In balanced rotary steam-engines wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; the construction of devices for supporting the said endless track in or from a stationary casing or framework, arranged and acting substantially as described with reference to Fig. 4 of the drawings. (11.) In balanced rotary steam-engines,

wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; the construction of devices for supporting the said endless track in or from a stationary casing or framework, arranged and acting substantially as described with reference to Fig. 5 of the drawings. (12.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; the construction of devices for supporting the said endless track in or from a stationary casing or framework, arranged and acting substantially as described with reference to Fig. 6 of the drawings. (13.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; the construction of devices for supporting the said endless track in or from a stationary casing or framework, arranged and acting substantially as described with reference to Fig. 7 of the drawings. (14.) In balanced rotary steam-engines, wherein the cylinders are arranged radially and at right angles to an axis about which they revolve, the cylinder-pistons carrying rollers which act against the curved endless interior surface of a surrounding track, whereby revolution of the cylinders is produced; the construction of devices for supporting the said endless track in or from a stationary casing or framework, arranged and acting substantially as described with reference to Figs. 8 and 9 of the drawings.

(Specification, 12s.; drawings, 2s.)

No. 13459.—7th March, 1901.—JAMES GILBERT DAW, of 2, Goring Road, Llanelly, Carmarthen, Great Britain, Engineer. An improved form of stamping-heads, and dies or anvils on which the heads beat for the purpose of crushing metalliferous ores.

Claim.—In stamping-heads, and dies or anvils, employed for stamping and crushing metalliferous ores, making or forming a hole in each head and die, which shall extend for all the length or for a portion of the length, in the manner and for the purposes substantially as described, and illustrated in Figs. 3 and 4 of the sheet of drawings.

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

No. 13460.—7th March, 1901.—DARLING'S PATENT AUTOMATIC COUPLING, LIMITED, of 79, West Regent Street, Glasgow, Scotland (assignees of John Darling, of Gallowflat, Rutherglen, Lanark, Scotland, Engineer). Improvements in automatically coupling and uncoupling railway carriages, wagons, and similar vehicles.

Claims.—(1.) In apparatus for automatically coupling and uncoupling railway carriages, wagons, and other vehicles, the balanced lifter constructed and arranged that in its normal position it closes the openings in the side walls of the jaws, and that when a coupling has to be effected, and the shackle or front link strikes against the coupling-pin, the balanced lifter is freed from the openings in the jaws, thus enabling the coupling-pin to pass in between the jaws, substantially as and for the purposes described, and illustrated on the sheet of drawings. (2.) The construction of lever link, substantially as and for the purposes described, and illustrated on the sheet of drawings. (3.) The method of locking the coupling-pin to prevent coupling or uncoupling of two vehicles when not required, substantially as described, and illustrated on the sheet of drawings. (4.) The use of an indiarubber or other elastic pad to insure the links, after being released from coupling-pin, falling into the required position for coupling again, substantially as described, and illustrated on the sheet of drawings.

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

No. 13463.—7th March, 1901.—JAMES PALMER CAMPBELL, of Wellington, New Zealand, Registered Patent Agent (nominee of Benjamin Garver Lamme, of 230, Stratford Avenue, Pittsburg, Pennsylvania, United States of America, Electrical Engineer). Improvements in systems of electrical distribution.

Claims.—(1.) In a system of electrical distribution of the kind described, a protective device for each rotary converter which holds the direct-current circuit leading therefrom closed so long as the shunt-field current of such converter does not fall below a predetermined safety limit, but which opens such circuit when the shunt-field current is reduced

below the safety limit or when the shunt-circuit is opened, for the purpose specified. (2.) In a system of electrical distribution in which translating-devices are supplied with direct currents through rotary converters from a source of alternating current, a circuit-breaker for each converter, the energising of the locking-coil of the breaker being controlled by the field-magnet current of the converter, for the purpose specified. (3.) A system of electrical distribution, arranged substantially as described, and shown in the drawing.

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

No. 13467.—12th March, 1901.—THOMAS CLARK, of Auckland, New Zealand, Tailor. An improved fastening for leggings.

Claims.—(1.) In fastenings for leggings, a metal rod secured within one edge of the legging and projecting below the bottom thereof, and provided with a right-angled tapered projecting piece near its top end, in combination with a metal rod secured within the other edge of the legging and formed with a right-angled loop projection below the bottom, and a spring pin near the top that is adapted to spring into a hole in the projecting piece on the first edge of the legging when the two edges are brought together, as and for the purposes specified. (2.) The general arrangement, construction, and combination of parts in my improved fastening for leggings, as described, as illustrated in the drawings, and for the purposes set forth.

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

No. 13470.—13th March, 1901.—WILLIAM STEPNEY RAWSON, of 25, Victoria Street, Westminster, London, England, Engineer, and ROBERT DEXTER LITTLEFIELD, of 30, Bensham Manor Road, Thornton Heath, Surrey, England, Analytical Chemist. Manufacture of refractory bricks, furnace-linings, crucibles, and other articles.

Claims.—(1.) Refractory articles made of calcined magnesite or magnesium-oxide, finely pulverised, mixed with a small proportion of a fusible compound of boron, also pulverised, and baked at a high temperature. (2.) Impervious refractory articles made of calcined magnesite or magnesium-oxide, finely pulverised, mixed with a fusible basic borate also pulverised, and partially vitrified by baking at a high temperature. (3.) Impervious refractory articles made of calcined dolomite mixed with calcined magnesite or magnesium-oxide and a fusible compound of boron, all finely pulverised, and partially vitrified by baking at a high temperature.

(Specification, 2s. 6d.)

No. 13471.—13th March, 1901.—ARCHIBALD WHITE MACONOCHE, of the firm of Maconochie Brothers, of 131, Leadenhall Street, London, England, Merchants. Improvements in the manufacture of tins or containers for enclosing preserved foods, provisions, or the like.

Claims.—(1.) A tin or container for enclosing preserved foods, provisions, or the like, the said tin or container consisting of a lid or cover with a flange, a sheet or disc of paper covering the whole of the under-side of the lid or cover and its flange, and a body part made by drawing or stamping from one piece of tin plate, and with a flange around its upper edge somewhat less than the flange around the lid or cover, the flanges of the lid or cover and of the body part, and the edge of the paper sheet or disc, being turned over or spun together so as to form a solderless joint, substantially as described. (2.) A tin or container for enclosing preserved foods, provisions, or the like, the said tin or container consisting of a lid or cover with a flange, a sheet or disc of paper covering the whole of the under-side of the lid or cover and its flange, and a body part made by drawing or stamping from one piece of tin plate, and with a flange around its upper edge somewhat less than the flange around the lid or cover, and a paper lining for the body part, with a flange to cover the flange of the body part; the flanges of the lid or cover of the body part, and the edges of the paper under the lid or cover, and of the paper forming the lining of the body part, being turned over or spun together so as to form a solderless joint, substantially as described.

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

No. 13473.—14th March, 1901.—GEORGE BROUGHAM HUBERT AUSTIN, of Tooronga Road, Malvern, near Melbourne, Victoria, Architect. Improved mechanism for utilising the "bumping" of cyclists for assisting in the propulsion of cycles.

Claims.—(1.) In mechanism for utilising the "bumping" of cyclists for assisting in the propulsion of cycles, a vertically sliding rod, tube, or plunger carrying the saddle, fitted with a spring, and having an anti-friction roller working within a horizontal slot in the upper arm of a bell-crank lever, the

lower end of which is fitted with another anti-friction roller working within a curved slot or path in an arm projecting from the rotary half of a clutch on the crank-axle, substantially as described and explained. (2.) In mechanism for utilising the "bumping" of cyclists for assisting in the propulsion of cycles, a vertically sliding rod, tube, or plunger carrying the saddle and having a semicircular strip as *a* upon its outer surface, in combination with a down tube having a corresponding strip upon its inner surface, an anti-friction roller being mounted upon said down tube so as to bear against said plunger, substantially as described and explained. (3.) In mechanism for utilising the "bumping" of cyclists for assisting in the propulsion of cycles, a vertically sliding rod, tube, or plunger fitted with a spring and working within the saddle pillar or down tube, having anti-friction rollers projecting from it so as to bear against the inner surface of said down tube, in combination with a bell crank lever pivotally mounted within a casing and connected through the medium of a projecting arm with a clutch having balls or rollers working up inclined surfaces in one half or other of said clutch, substantially as described and explained. (4.) In mechanism for utilising the "bumping" of cyclists for assisting in the propulsion of cycles, a vertically sliding rod, tube, or plunger carrying the saddle and working within the down tube, in combination with a projecting arm upon a clutch on the crank-axle, said arm having a curved slot in which works the roller on the lower end of said vertically sliding rod, tube, or plunger, substantially as described and explained.

(Specification, 5s. 3d.; drawings, 8s.)

No. 13474.—14th March, 1901.—GEORGE THOMAS BOOTH, of Carlyle Implement-works, Sydenham, New Zealand, Engineer. An improved conductor-tube for agricultural implements.

Claim.—An improved conductor-tube for seed-drills and the like, formed of coiled wire, substantially as and for the purposes described and illustrated.

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

No. 13476.—14th March, 1901.—EDWARD CLARENCE PARAMORE, of 111, Queen Street, Germantown, Philadelphia, United States of America, Electrical Engineer. Improved method of and apparatus for generating, treating, and utilising chlorine gas.

Claims.—(1.) In an apparatus for treating chlorine gas, an electric chamber consisting of a gas-way tube, housings connected to said tube, dielectric bulbs containing electrodes contained in said housings, in combination with a chlorine-generator connected to said gas-way tube, a pump connected to the apparatus, an induction coil, and electrical connections between said induction coil and electrodes. (2.) In an apparatus for treating chlorine gas, an electric chamber consisting of a gas-way tube, housings connected to said tube, dielectric bulbs containing electrodes, said bulbs extending through the housings and into the gas-way tube, in combination with a chlorine-generator and a receiver, both connected to said gas-way tube, a pump connected to the receiver and induction coil, and electrical connections between said induction coil and electrodes. (3.) In an apparatus for treating chlorine gas, the combination of a chlorine-generator, a gas-way tube connected to said generator, a receiver also connected to said gas-way tube, dielectric bulbs containing electrodes, housings for said bulbs, said bulbs extending into the gas-way tube, an induction coil electrically connected to said electrodes, and a pump connected to said apparatus, substantially as described. (4.) In an apparatus for treating chlorine gas, the combination of a chlorine-generator, an electric chamber, a receiver and a pump connected thereto, said electric chamber consisting of a gas-way tube connected at its ends to the generator and to the receiver, housings connected to the gas-way tube, dielectric bulbs in the housings, electrodes in the bulbs, and an induction coil electrically connected to the electrodes, the space between the bulbs and housings forming a trap for condensed acid, substantially as described. (5.) The art of treating chlorine gas which consists in—first, setting up an apparatus consisting of a chlorine-generator and an electric chamber, and expelling all the air from said apparatus; second, generating gas in said generator; third, passing said gas into said electric chamber; and, fourth, electrifying said gas in said chamber, substantially as described. (6.) The art of treating and utilising chlorine gas which consists in—first, expelling the air from a chlorine-generator; second, generating gas in said generator; third, drawing said gas into an electric chamber; fourth, electrifying said gas in said chamber; and, fifth, forcing the treated gas back and forth through the material to be treated, substantially as described. (7.) A new product consisting of freshly generated chlorine gas which has been electrified without the admixture of atmospheric air, substantially as described.

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

No. 13477.—14th March, 1901.—MAURICE DANIEL LARKIN, of Dayton, Ohio, United States of America, Manufacturer. Improvements in relief-valves.

Claims.—(1.) A relief-valve comprising a casing, a relief-port therein, a piston in said port, a stem from said piston having at opposite points rack-teeth and a longitudinally extending guide-rib engaging the casing, a guide-rib and rack-teeth, and a flap-valve pivoted in the casing and provided with teeth to engage those upon said stem, substantially as specified. (2.) A relief-valve comprising a casing, a cylindrical relief-port having an open end, a piston adapted to travel within and beyond the end of said port, a stem from said piston provided with a guide-rib and rack-teeth thereon, and a flap-valve pivoted within the casing and provided with means to engage the teeth upon said stem, substantially as specified. (3.) A relief-valve comprising a casing, a cylindrical relief-port having an open end and guide-fingers extended beyond the body portion thereof, a piston in said port adapted to travel over said fingers, a stem from said piston provided with rack-teeth, and a flap-valve pivoted within the casing and provided with means to engage said teeth, substantially as specified. (4.) A relief-valve comprising a casing provided with a seat in its wall, a relief-port for said casing, a piston in said port, a flap-valve curved to fit said seat, and means for connecting said valve and piston, substantially as specified. (5.) A relief-valve comprising a casing, a relief-port therein, a piston in said port, a stem from said piston having upon one face a longitudinal guide-rib and upon the opposite face a series of rack-teeth, and a valve within the casing adapted to mesh with said teeth and operate said stem, substantially as specified. (6.) A relief-valve comprising a casing, a cylindrical relief-port having spaced guide-fingers extended beyond its open end, a piston in said port adapted to traverse said fingers, a valve within said casing, and means connecting said valve and piston for simultaneous movement, substantially as specified. (7.) A relief-valve comprising a casing having a valve-seat or pocket and an enlarged path or way therein, a flap-valve curved in cross-section and pivoted within the casing to travel in said path and to lie within said seat, a relief-port from the casing, and means controlled by said valve for opening and closing said port, substantially as specified. (8.) A relief-valve comprising a casing provided with a curved seat in its walls and a curved path, a flap-valve pivoted in said casing and having a curved body to conform to said seat and a curved end to conform to said path, and means for operating said valve, substantially as specified. (Specification, 5s. 6d.; drawings, 1s.)

No. 13478.—11th March, 1901.—GEORGE HALL, of Lepperton, Taranaki, New Zealand, Settler. An improvement in ear-marks for live-stock, and appliance for fixing the same.

Claims.—(1.) In an ear-mark for live-stock, a plate of any suitable non-rusting material adapted to bear a name, a number, or device, having a cone-headed sharp-pointed pin on its back. (2.) In an ear-mark for live-stock, a back plate, a combination of two discs of suitable metal having between them a plate of spring steel with a central hole and radial slits, the whole fastened together. (3.) In an ear-mark for live-stock, a plate having at its back a sharp-pointed cone-headed pin, and a back plate containing a steel spring plate with a central hole and radial slits, through which the head of the said pin may be forced but not withdrawn, substantially as shown and described. (Specification, 3s. 6d.; drawing, 1s.)

F. WALDEGRAVE,
Registrar.

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

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

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

Provisional Specifications.

Patent Office,
Wellington, 20th March, 1901.

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

No. 13338.—28th January, 1901.—LINCOLN HOLLAND COWLES, of 557, Flinders Street, Melbourne, Victoria, Australasian Manager for D. M. Osborne and Co. (nominee of William N. Whitely, of Springfield, Ohio, United States of America). Improvements in reaping-and-binding harvesters.

B

No. 13440.—4th March, 1901.—DAVID FORTUNE ROLLO, of Harapipi, Waikato, Auckland, New Zealand, Settler. Improved appliances for milking cows.

No. 13441.—4th March, 1901.—DAVID FORTUNE ROLLO, of Harapipi, Waikato, Auckland, New Zealand, Settler. An improved appliance for dehorning cattle.

No. 13442.—1st March, 1901.—JOHN CAIRNEY, of Grey-mouth, New Zealand, Jeweller. An improved sand-blast.

No. 13443.—5th March, 1901.—JOSEPH GEORGE HOWARD, of 31, William Street, Melbourne, Victoria, Storeman. An improved metallic storage case, box, or can, which may be readily opened.

No. 13444.—5th March, 1901.—JOHN GELL, of Cable Bay, Nelson, New Zealand, Electrical Engineer. An improved device for moistening adhesive or other surfaces, also applicable for inking-pad for rubber and other stamps.

No. 13448.—6th March, 1901.—MARGARET ISABEL BOLTON, wife of Frederick George Bolton, of Wellington, New Zealand, Solicitor. Improved luggage-carrier for bicycles.

No. 13449.—6th March, 1901.—SOPHIA AUGUSTA FELTON, wife of George Felton, of Wellington, New Zealand, Civil Servant. An automatic foot-releasing railway-shunters' and pointsmen's boot.

No. 13452.—2nd March, 1901.—ARTHUR ERNEST OTWAY, Engineer, and FRANK VICTOR RAYMOND, Solicitor, both of Invercargill, New Zealand. Improvements in bicycle-frames to secure resilience therein.

No. 13457.—7th March, 1901.—JOSEPH HENRY LANCASHIRE, of 64, Barrow Road, Streatham Common, London, England, Engineer, and JAMES WESTHEAD WORSEY, of 137, Boundary Road, St. Helen's, Lancaster, England, Chemist. Improvements in treating complex ores.

No. 13464.—8th March, 1901.—WILLIAM HENRY LAWRENCE, of Fowke Street, Richmond, Christchurch, New Zealand, Gardener. An improved watering-bench for pot-plants.

No. 13466.—8th March, 1901.—JOHN ATKINSON WALKER, of Melrose, Devonport, Auckland, New Zealand, Timber Merchant. An improved cover for closet-pans.

No. 13468.—13th March, 1901.—WILLIAM STYLES HAZELTON, of 394, High Street, Windsor, Victoria, Metallurgist. An improved apparatus for extracting gold and silver from slimes and other products.

No. 13472.—13th March, 1901.—THOMAS THEOPHILUS DRAPER, of 267, Little Collins Street, Melbourne, Victoria, Electrician. Improvements in apparatus for extracting liquid solutions from metalliferous slime, pulp, or sand.

No. 13475.—14th March, 1901.—JOHN GELL, of Cable Bay, Nelson, New Zealand, Electrical Engineer. Improvements in Wheatstone automatic perforators.

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 7th March, 1901, to the 20th March, 1901, inclusive:—

No. 12467.—The Sulphides Production (New Process), Limited, treating ores (F. Ellershausen).

No. 12599.—The British Westinghouse Electric and Manufacturing Company, Limited, dynamo-electric machine (B. G. Lamme).

No. 12835.—W. P. Griffiths, separating wool from skins.

No. 12999.—V. Metzger, gate-hinge.

No. 13048.—A. Williams, boot.

No. 13049.—M. Dessau, liner for centrifugal machine.

No. 13050.—Electric Lighting Boards, Limited, contact appliance for electric glow-lamp (E. Greil and E. Audiger).

No. 13112.—The British Westinghouse Electric and Manufacturing Company, Limited, protecting electrical apparatus (P. H. Thomas).

No. 13118.—W. B. Govett, brake.

No. 13168.—The British Westinghouse Electric and Manufacturing Company, Limited, strap coil for electrical machine (J. P. Mallett).

No. 13189.—The British Westinghouse Electric and Manufacturing Company, Limited, electrical distribution (H. R. Kent).

No. 13193.—T. R. Jordan, separating ores.

No. 13194.—T. R. Jordan, amalgamator.

No. 13195.—T. R. Jordan, crushing-machine.

No. 13198.—W. H. Eyres, shearing-machine.

No. 13202.—A. Potter, insecticide.

No. 13211.—F. J. Odling and W. Jamieson, separating magnetic particles from ores.

No. 13213. — Marconi's Wireless Telegraph Company, Limited, apparatus for wireless telegraphy (G. Marconi).
 No. 13218. — T. D. Merton, ore-furnace.
 No. 13240. — A. C. Aucher, corkscrew.
 No. 13241. — A. C. Aucher, oil-burner.
 No. 13242. — A. C. Aucher, gas-igniter.
 No. 13244. — A. C. Aucher, gas-lighting.

F. WALDEGRAVE,
 Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 9160. — M. L. Gibbons, timber-launching slip (N. Gibbons). 19th March, 1901.
 No. 9341. — J. F. Duryea, motor vehicle. 7th March, 1901.
 No. 9390. — P. Z. Davis, wheel. 7th March, 1901.
 No. 9442. — E. G. N. Salenius, churn. 13th March, 1901.
 No. 9450. — W. Stevenson, tin-soldering machine. 12th March, 1901.
 No. 9585. — Blanton Patents Syndicate, Limited, securing cams upon shafts (E. A. Blanton, jun.). 7th March, 1901.

THIRD-TERM FEES.

No. 6764. — The Textile Cleaning Company, Limited, scouring wool (F. N. Turney). 7th March, 1901.
 No. 6765. — Australasian Incandescent Gaslight Company, Limited, incandescent gas-burner (A. and E. Cohen—C. A. von Welsbach). 15th March, 1901.

F. WALDEGRAVE,
 Registrar.

Subsequent Proprietors of Letters Patent registered.

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

NO. 11324. — The Intractable Ore Treatment Company, Limited, a company incorporated under the Companies Acts of Great Britain, 1862 to 1890, and having its registered office at 11 and 12, Clements Lane, London, England, treating ores. [E. Petersson.] 19th March, 1901.
 No. 12723. — The Intractable Ore Treatment Company, Limited, a company incorporated under the Companies Acts of Great Britain, 1862 to 1890, and having its registered office at 11 and 12, Clements Lane, London, England, treating ores. [T. N. Beavan—E. Petersson.] 19th March, 1901.

F. WALDEGRAVE,
 Registrar.

Notice of Request to amend Specification.

Patent Office,
 Wellington, 20th March, 1901.

REQUEST for leave to amend the under-mentioned 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. 13367. — 30th January, 1901. — Charles Marshall Buckworth, of Whakatane, Auckland, New Zealand, Land Agent. An improved method of branding and marking cheese.

The nature of the proposed amendments is as follows: To insert the name, "William Fyfe Moody, of Whakatane aforesaid, Contractor," as joint applicant with the said Charles Marshall Buckworth; to add "s" to the word "inventor," and to so otherwise alter the form as to make it suitable for joint applicants.

The applicant states:—"My reasons for making the amendment are as follow: That when making the application I omitted to include in it and the provisional specification the name of William Fyfe Moody, of Whakatane, Contractor, and to obtain his signature to the papers, which I should have done, he being a joint inventor with me for the 'improved method of branding and marking cheese'; and, further, because he has requested me to have this amendment made so that the Letters Patent may be issued in our joint names."

F. WALDEGRAVE,
 Registrar.

Request for Correction of Clerical Error.

NO. 12849. — J. S. Morton, pump (advertised in Supplement to *New Zealand Gazette*, No. 73, of the 16th August, 1900): To alter the figures "8 8" to "7 7," line 12, page 5, of specification.

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 7th March, 1901, to the 20th March, 1901, inclusive:—

No. 12584. — H. J. Rodgers and J. Lamberg, rat-trap.
 No. 12586. — J. Dawson and G. Hughan, case-hooping instrument.
 No. 12588. — S. E. G. Coleman, knife, fork, and spoon combined.
 No. 12593. — P. E. Cheal, caster.
 No. 12594. — E. Higgins, infants' clothing.
 No. 12595. — F. W. Marchant, dredge.
 No. 12597. — H. Rabe and T. Hawes, candle-extinguisher.
 No. 12598. — W. Smith and W. Dunn, fumigating ships' holds, &c.
 No. 12604. — W. Lonergan and S. Scammell, propeller-brake.
 No. 12605. — H. August, can.
 No. 12608. — P. W. Frer, speed-regulator for countershaft.
 No. 12610. — E. A. G. Hamlin, marking meat.
 No. 12611. — G. Renner and W. H. Boyens, marking sheep.
 No. 12612. — W. H. Boyens, fountain-pen.
 No. 12617. — W. Wiggins, leggings.
 No. 12618. — T. B. Dineen, rotary engine.
 No. 12619. — H. Reynolds, cycle mud-guard.
 No. 12620. — J. H. Pomeroy, joining rails.
 No. 12621. — W. A. Ellis, branding-fluid.
 No. 12629. — F. B. C. Allen, incinerator.
 No. 12630. — W. B. Suttie, legging-boot.
 No. 12631. — G. D. Jones, cyclists' trousers.
 No. 12640. — H. Noy, spark-extinguisher.

F. WALDEGRAVE,
 Registrar.

Applications for Letters Patent lapsed.

LIST of applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 7th March, 1901, to the 20th March, 1901, inclusive:—

No. 11977. — J. Werner, obtaining gold from river-beds.
 No. 11986. — C. McLeod, fencing-dropper.
 No. 11987. — F. W. Parsons and W. E. Campbell, cycle-frame.
 No. 11996. — H. North, mattress.
 No. 12003. — R. Cockerell, stamper-battery.

F. WALDEGRAVE,
 Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of fees from the 7th March, 1901, to the 20th March, 1901, inclusive:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 9101. — E. Spear and F. L. Middleton, making leather articles (A. L. Sweet).
 No. 9112. — F. J. Osmond, cycle-hub.
 No. 9113. — F. J. Osmond, cycle-driving mechanism.
 No. 9114. — C. S. White and A. J. Cuming, dressing flax.
 No. 9125. — J. Black, spray-nozzle.
 No. 9139. — T. H. Mann, bootlace-fastener.
 No. 9143. — W. Darby and J. H. Punchard, burning liquid hydrocarbons.
 No. 9154. — J. H. Mander, vote-recording machine.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

No. 6570. — The Valveless Gas-engine Syndicate, Limited, gas-engine (F. W. C. Cook).
 No. 6571. — E. Seltz and R. P. Park, pump.
 No. 6583. — H. M. the King, lamp (W. Thornley).

F. WALDEGRAVE,
 Registrar.

Design registered.

DESIGN has been registered in the following name on the date mentioned:—

No. 130. — G. A. Coles and Co., of Eden Terrace, Auckland, New Zealand, Boot-manufacturers. Class 10. 22nd February, 1901.

F. WALDEGRAVE,
 Registrar.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, 20th March, 1901.

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 : 3189.
Date : 18th September, 1900.

TRADE MARK.

The words

SPREAD EAGLE.

NAME.

D. BENJAMIN, of Dunedin, New Zealand.

No. of class : 45.
Description of goods : Tobacco.

No. of application : 3320.
Date : 6th March, 1901.

TRADE MARK.

The words

GOLDEN BRAND.

The essential particular of this trade mark is the word "Golden"; and any right to the exclusive use of the word "Brand" is disclaimed.

NAME.

J. G. WARD AND Co., Crescent, Invercargill, New Zealand, General Merchants.

No. of class : 42.
Description of goods : Substances used as food or as ingredients in food.

No. of application : 3324.
Date : 6th March, 1901.

TRADE MARK.

The words

SAPPHIRE BRAND.

The essential particular of this trade mark is the word "Sapphire"; and any right to the exclusive use of the word "Brand" is disclaimed.

NAME.

J. G. WARD AND Co., Crescent, Invercargill, New Zealand, General Merchants.

No. of class : 42.
Description of goods : Substances used as food or as ingredients in food.

No. of application : 3325.
Date : 7th March, 1901.

TRADE MARK.

The word

THERAPION.

NAME.

ROBERT HENRY*NEVILL JOHNSON, of 43, Holford Square, London, England, Gentleman.

No. of class : 3.
Description of goods : A medicine.

No. of application : 3326.
Date : 7th March, 1901.

TRADE MARK.

The word

HEMOLIN.

NAME.

WILLIAM J. MATHESON AND Co., LIMITED, of 182, Front Street, New York, United States of America.

No. of class : 4.
Description of goods : Certain chemical products used in dyeing.

No. of application : 3331.
Date : 14th March, 1901.

TRADE MARK.

The word

COCKTAIL.

NAME.

FERNAND LEVIC, of York Street, Sydney, New South Wales, Importer, trading as "Frossard, Levic, and Co."

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

No. of application : 3333.
Date : 19th March, 1901.

TRADE MARK.

The word

IMPERIAL.

NAME.

THOMAS GEORGE DE RENZY, of Auckland, New Zealand, Typewriter Agent.

No. of class : 39.
Description of goods : Typewriter stationery and supplies included in this class, such as linen papers, ink ribbons and pads, carbons, note-books, erasers, duplicating apparatus, stencil and ink, copybooks, fasteners, &c.

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 7th March, 1901, to the 20th March, 1901, inclusive:—

No. 2552; 3249.—The American Tobacco Company of New Zealand, Limited; Class 45. (*Gazette* No. 105, of the 20th December, 1900.)

No. 2553; 3250.—J. Nathan and Co., Limited; Class 42. (*Gazette* No. 105, of the 20th December, 1900.)

No. 2554; 2963.—F. J. W. Fear; Class 40. (*Gazette* No. 18, of the 1st March, 1900.)

No. 2555; 2943.—C. Hopkins; Class 2. (*Gazette* No. 15, of the 15th February, 1900.)

No. 2556; 3236.—Warnock Bros.; Class 47. (*Gazette* No. 105, of the 20th December, 1900.)

F. WALDEGRAVE,
Registrar.

Trade Mark Application withdrawn.

NO. 3307.—F. Levic. (Advertised in Supplement to *New Zealand Gazette*, No. 26, of the 7th March, 1901.)

F. WALDEGRAVE,
Registrar.

Entry of Trade Mark on Register cancelled.

NO. 2966/2388.—J. B. Gilberd and Sons. (Advertised in Supplement to *New Zealand Gazette*, No. 29, of the 12th April, 1900.)

F. WALDEGRAVE,
Registrar.

By Authority: JOHN MACRAY, Government Printer, Wellington.