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* Alphabetical lists for the preceding quarters of the year 1902 appear in *Gazettes* Nos. 34, of the 1st May, 75, of the 18th September, and 99, of the 27th November.

Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 4th February, 1903.

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

No. 14297.—2nd December, 1901.—JAMES COTTERILL, of Wallace Street, Wellington, New Zealand, Settler, and CHARLES MCINTYRE, Jun., of Pirie Street, Wellington aforesaid, Engineer. Improved means for automatically indicating the approach of a train or the like.*

A

Claims.—(1.) In means for indicating the approach of a train or the like, a swinging arm pivoted to the side of the rail and adapted to be engaged by the flanges of the wheels passing over it, a spring connecting-piece beneath the arm with which the arm shall form contact when engaged by the wheel-flanges, wires from opposite poles of an electric battery connected respectively with the arm and spring piece, and a bell or other signal arranged in circuit with the battery wires, as set forth. (2.) A swinging pendant arm pivoted to the side of a rail and provided with springs for normally keeping it in an upright position, and with an upwardly extending part adapted to be engaged by the flanges of the wheels passing along the rails, in combination with a spring contact-piece secured below the arm and upon which the pendant portion of the arm will press when it is forced to one side, and with an electric alarm circuit connected to the swinging arm and contact-piece, as and for the purposes specified. (3.) The general arrangement, construction, and combination of parts in our improved means for automatically indicating the approach of a train or the like, as described and explained, as illustrated in the drawings, and for the several purposes set forth.
(Specification, 4s.; drawings, 1s.)

No. 14778.—17th April, 1902.—WILLIAM MOORE, of Yarrow Street, Invercargill, New Zealand, French-polisher, and CHARLES THOMAS KIERNAN, of Ythan Street, Invercargill aforesaid, Upholsterer. An improved box for packing rabbits, fish, poultry, and the like.*

Claims.—(1.) An improved box for packing rabbits, fish, poultry, and the like, consisting of the parts arranged, combined, and operating substantially as and for the purposes set forth, and illustrated in the drawing. (2.) In apparatus for the purposes indicated, an inner crate comprising a light framework covered with reticular material, in combination with an outer cover therefor adapted to be placed over said crate and to be readily removed therefrom, substantially as and for the purposes set forth, and illustrated in the drawing. (3.) An improved box for packing rabbits, fish, poultry, and the like, comprising an inner portion consisting of sides and ends made of light wood covered all round with wire netting or other wire fabric, and fastened at the side, and a cover adapted to go over the same made of wood or metal, and consisting of top and bottom portions kept in position by

strips of hoop-iron, said cover being adapted to keep the inner portion in shape, and to be taken off when the articles contained in said inner portion have been frozen, substantially as specified and set forth.

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

No. 14809.—1st May, 1902.—WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of the Mechanical Cashier Syndicate, Limited, of 111-113, Cophall House, Cophall Avenue, London, England—assignees of Isaac Strange Dement, of 108, Carnegie Avenue, East Orange, New Jersey, United States of America, Foster John Hull, of 250, Thirteenth Street, Brooklyn, New York, United States of America aforesaid, and Arthur D. King, of 20, Broad Street, New York aforesaid, Mechanical Engineers). Improvements in mechanical cashiers, registers, and recorders.*

Claims.—(1.) The mechanical cashier substantially as shown in Figs. 1 to 15 inclusive of the drawings. (2.) In a machine of the character described, the combination of a series of cash wheels, controlling mechanism therefor comprising oscillating controlling-levers, a purchase or numeral keyboard comprising in addition to the purchase or numeral keys special or department keys, selecting mechanism intermediate between said purchase or numeral keyboard and said controlling mechanism, locking mechanism for said purchase or numeral keys, mechanism controlled by said special or department keys for unlocking said locking mechanism, locking mechanism for said special or department keys, and mechanism controlled by said controlling-levers for unlocking said department-key-locking mechanism, substantially as set forth. (3.) In a machine of the character described, the combination of a purchase or numeral keyboard, a series of tumblers or push-bars controlled thereby, a yoke adapted to engage and restore the said bars to normal position, a main operating handle or lever, and a resetting-device controlled thereby for engaging said yoke, substantially as and for the purpose set forth. (4.) In a machine of the character described, the combination with cash receptacles, controller devices therefor operated on deposit of money in said receptacles, purchase-keyboard mechanism, permutating mechanism connected to the controller and purchase-keyboard mechanisms to control the delivery of change, and extra permutating-devices corresponding to denominations which are not commensurate and acting to vary the operation of the permutating-devices for said denominations, substantially as described, a main operating-handle and mechanism controlled thereby for restoring said extra permutating-devices to normal position. (5.) In a machine of the character described, the combination with the purchase or numeral keyboard, the tumblers or push-bars, and the permutating devices of the main operating handle or lever and a resetting-bar operated thereby, and mechanism controlled by said resetting-bar for restoring to normal position the purchase or numeral keyboard, the tumblers or push-bars, and the permutating devices. (6.) In a machine of the character described, the combination with a purchase or numeral keyboard, push-bars or tumblers controlled thereby, special permutating-devices for such push-bars or tumblers including rotating toothed wheels, shafts carrying said wheels, spring retaining-devices for holding said shafts in any predetermined position, a series of cash wheels and controlling-devices therefor, a main operating handle or lever, and mechanism intermediate between said controlling-devices and said permutating-devices, and intermediate between said main handle or lever and said permutating-devices, whereby said controlling-devices and said handle or lever alternately operate said permutating-devices. (7.) In a machine of the character described, the combination of a purchase or numeral keyboard, a series of tumblers or push-bars controlled thereby, a series of auxiliary tumblers certain of which hold the main tumblers or push-bars normally in elevated position, and means controlled by the said keyboard for shifting the said auxiliary tumblers to depress said normally elevated push-bars or tumblers, substantially as set forth. (8.) The controlling and operating devices for a mechanical cashier, substantially as shown in Figs. 1^a to 8^a of the drawings. (9.) In a mechanical cashier, the combination with a cash wheel of a pivoted controller key provided with a yielding portion arranged to engage the cash wheel to move it in one direction of movement of the key but allow return movement of the key without operation of the cash wheel, and means for moving the cash wheel in the other direction independently of the controller key. (10.) In a mechanical cashier, the combination with a cash wheel and a locking-catch engaging same, of a controller key arranged to engage the cash wheel to move same, and provided with a projection engaging the locking-catch and arranged to release the cash wheel to allow it to be moved by the controller, and to then release the catch to allow it to again lock the cash

wheel. (11.) In a mechanical cashier, the combination with a cash-receptacle wheel and its controller-means adapted to move same in one direction, of an operating-means separate from said controller means for moving said wheel in reverse direction, comprising an operating-shaft, an operating-device loose on said shaft, clutching-means for clutching said operating-device to the shaft, and connecting mechanism whereby operation of said controller-means controls the said clutching-means. (12.) In a mechanical cashier, the combination with a plurality of cash-receptacle wheels, of an operating-shaft, and operating-devices carried thereby and adapted to engage the cash-receptacle wheels to move the same to ejecting position, and ejecting-devices engaged respectively and operated independently by such operating-devices. (13.) In a mechanical cashier, the combination with a cash-receptacle wheel and locking-means therefor, of an operating-shaft, a cam operated by said shaft, and means operated by said cam to release the aforesaid locking-means, and an operating-device also operated by said shaft and adapted to operate the cash receptacle. (14.) In a mechanical cashier, the combination with the cash receiving and delivery mechanism, and the purchase-key mechanism, of resetting means for the purchase-key mechanism, a rotatable operating-shaft, and means engaged positively by said shaft in its rotation to move the resetting-means alternately in opposite directions. (15.) The dogging-means for the cash receptacles of mechanical cashiers substantially as shown in Figs. 1^b and 2^b of the drawings. (16.) In a mechanical cashier, the combination of a movable cash receptacle, controller-means for moving said receptacle in one direction, a locking-device for preventing this movement, operating-means for moving the receptacle in reverse direction, and a locking-device separate from the first-named locking-device for preventing such reverse movement. (17.) In a mechanical cashier, the combination of controlling-means, a dogging-device comprising a rack and a detent engaging therewith, one of said parts being connected to the controlling-means to prevent back movement thereof, and means operated on the completion of the controlling operation to release said dogging-means. (18.) The cash receptacles for mechanical cashiers substantially as shown in Figs. 1^c to 3^c of the drawings. (19.) A cash wheel for mechanical cashiers having two central disc portions, pocket elements attached to the disc portions and arranged in separated series for the purpose described. (20.) The recording mechanism substantially as shown in Figs. 1^d to 12^d. (21.) The combination with the recording type-bars having type arranged in a plurality of sets on one side of all the bars, means on the other side of all the bars for operating same, and a plurality of printing-platens adapted to co-operate with the respective sets of type, of means for operating all said platens simultaneously. (22.) The combination with the recording type-bars having type arranged in a plurality of sets, and means for operating said bars, of a shaft, a plurality of printing-hammers carried thereby and co-operating with the respective sets of type on the bars, and means for operating said shaft, comprising a cam, an arm carried by said shaft and bearing on said cam, and a spring tending to move the printing-hammers to printing position against the action of the cam. (23.) The combination with the type-bars having type arranged in a plurality of sets on one side of all the bars in different longitudinal positions thereon, and a plurality of platen devices, of means for carrying a record strip in position to be printed upon by one set of type and platen devices, and means for inserting a slip in position to be printed upon by another set of type and platen devices. (24.) The combination with the recording type-bars, means for operating said bars, and a printing-platen, of a sliding support adapted to receive and hold a slip and movable to bring said slip between the type-bars and the printing-platen. (25.) The combination with the recording type devices and the printing-platen, means for inserting a slip in the machine to enable coupon portion thereof to be printed on by said type devices and platen, cutting-off means for severing said coupon portion, and gripper means adapted and arranged to take hold of said coupon portion and to retain same when the slip is removed. (26.) The combination of the main gripping-lever, the subsidiary gripping-lever pivoted thereto, means for moving the main gripping-lever, and means operated by the movement of such main lever to cause the subsidiary lever to move relatively to the main lever to open and close the gripping-parts. (27.) The combination with the plurality of parallel type-bars, each having a plurality of sets of type, of a plurality of inking-rolls for the respective sets of type and a movable support for all of said rolls, said movable support being also adapted to receive a slip and to move same into position to be printed on by the type. (28.) The check-severing means substantially as shown in Figs. 1^e to 3^e of the drawings. (29.) In a machine of the character described, the combination of a sliding support movable and guided in said machine, and adapted to receive a slip and insert same in the machine, of a severing-device located in fixed relation to the machine and having operating connections with the carrier whereby movement of the carrier operates the severing-device to

sever the slip. (30.) The operating mechanism for cash registers and recorders substantially as shown in Figs. 1^f to 3^f.

(Specification, £2 5s.; drawings, 9s.)

No. 14813.—1st May, 1902.—RICHARD DAVID SANDERS, of 5, Kidbrook Grove, Blackheath, Kent, England, Engineer. Improvements in the electro-deposition of metals for the manufacture of compound wire bars and the like, and in apparatus therefor.*

Claims.—(1.) In apparatus for the manufacture of wire or the like by electro-deposition upon a mother-wire in the form of a coil, the combination with the tank for containing the electrolyte liquid, of a shaft above the same provided with a coating of insulating material for supporting and rotating the coil, an anode located within said tank, and a cathode connection between the coil and said shaft, substantially as described. (2.) In apparatus for the manufacture of wire or the like by electro-deposition upon a mother-wire in the form of a coil, the combination with the tank for containing the electrolyte liquid, of a shaft above the same provided with a coating of insulating material for supporting and rotating the coil, an anode located within said tank, and a cathode connection between the coil and said shaft, and a partition located in said tank between the anode and said coil and extending from the top of the tank to a point adjacent to the bottom thereof, substantially as described. (3.) In apparatus for the manufacture of wire or the like by electro-deposition upon a mother-wire in the form of a coil, the combination with the tank for containing the electrolyte liquid, of a shaft above the same provided with a coating of insulating material for supporting and rotating the coil, an anode located within said tank, and a cathode connection between the coil and said shaft, and a partition located in said tank between the anode and said coil and extending from the top of the tank to a point adjacent to the bottom thereof, a compartment located within the coil to be acted upon and provided with apertures for the circulation of the electrolyte, and an anode located in said compartment, substantially as described. (4.) In apparatus for the manufacture of wire or the like by electro-deposition upon a mother-wire in the form of a coil, the combination with the tank for containing the electrolyte, of a shaft above the same provided with a smooth coating of insulating material, collars of insulating material to prevent the endwise movement of the coil and collars, of conducting material to engage the end of the coil, an anode within said tank, and a cathode connection with said conducting collars, substantially as described. (5.) In apparatus for the manufacture of wire or the like by electro-deposition upon a mother-wire in the form of a coil, the combination with the tank for containing the electrolyte, of a supporting-shaft of smaller diameter than the coil of mother-wire for supporting said coil, said shaft being provided with a coating of insulating material, means for rotating said shaft, a cathode connection between said coil and said shaft, and coil-engaging devices on said shaft for retaining the coil against lateral movement, substantially as described. (6.) In apparatus for the manufacture of wire or the like by electro-deposition upon a mother-wire in the form of a coil, the combination with the tank for containing the electrolyte, of a supporting-shaft of smaller diameter than the coil of mother-wire for supporting said coil, said shaft being provided with a coating of insulating material, means for rotating said shaft, a cathode connection between said coil and said shaft, and struts secured to said coil for preventing the lateral movement of the convolutions thereof, substantially as described.

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

No. 14822.—30th April, 1902.—ARTHUR OSCAR BRIDGMAN, of Dunedin, New Zealand, Brass-finisher. Improved mat-fastener.*

Claims.—(1.) A mat-fastener consisting of two similar wire members, each in the shape of an archer's bow, provided with a loop at the middle point, eyes at the extremities adapted to be secured to a mat, and means in conjunction with said loop for securing said members to a floor, substantially as described. (2.) A mat-fastener consisting of two similar wire members, each provided with an eye at each end, a central loop, outwardly bent portions on each side of and extending from the legs of said loop, downwardly bent portions extending from the ends of said last-mentioned portions, and from thence outwardly bent portions extending to the rear of said eyes, the whole adapted to be secured to a mat, and means for securing said loop to a floor, substantially as described.

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

No. 14867.—1st May, 1902.—ROBERT STUART REID, of Timaru, New Zealand, Surgeon. Improvements in or relating to windows.*

Claims.—(1.) In windows, a toothed rack secured to the face of the top sash and upon the edge thereof, a sliding spring bolt secured transversely within the sash-slides of the window-frame and provided with a tooth normally engaging with the rack and with a pin projecting into the slide of the bottom sash, in combination with an inclined surface upon the edge of the bottom sash that is adapted to engage with the bolt-pin so as to free its tooth from the rack when the sash is raised, and with means for locking the lower sash in its closed position, as set forth. (2.) In means for locking windows, a pendant pivoted hook secured within a cavity in the bottom end of the lower sash-frame, provided with an inclined surface on its lower end and with a spring bearing against its back side, an upright staple secured upon the window-frame with which the hook will engage when the sash is lowered, and a push upon the inside face of the sash-frame whereby when the lower sash is down the upper sash may be locked in any position from further opening, and when the lower sash is raised the upper sash will be unlocked, as specified. (3.) In windows, a toothed rack upon the inside face of the top sash, a transverse sliding spring bolt within the sash-slides of the frame provided with a tooth normally engaging with the rack and with a pin projecting into a vertical groove upon the edge of the bottom sash, and an inwardly inclined surface upon one side of the groove, in combination with a pivoted spring hook mounted in a cavity formed in the bottom end of the lower sash, such hook being provided with an inclined undersurface and adapted to engage with an upright staple secured to the frame of the window when the sash is down, and a push for freeing such hook from the staple, as specified. (4.) The general arrangement, construction, and combination of parts in my improvements in or relating to windows, as described and explained, as illustrated in the drawings, and for the several purposes set forth.

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

No. 14875.—10th May, 1902.—WILLIAM CRAIG, of Symonds Street, Auckland, New Zealand, Plumber. An improved ventilator.*

Claim.—In combination with my ventilator secured to me by letters patent No. 6011, the improvements thereto consisting of lining fixed to the underpart of the top cone, projection at bottom of cone, wire netting fixed round opening between top and bottom cones, and outlet-holes, all for the purposes set forth, substantially as described.

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

No. 14891.—19th May, 1902.—DANIEL MURPHY, of Tuamarina, New Zealand, Flax-mill Manager. Improved plummer-block for flax-stripper or other machinery.*

Claims.—(1.) In a plummer-block, a horn and stop cast solid with the bed-plate of the machine, and a removable block fitted between the said horn and stop and secured by bolts to the bed-plate, substantially as set forth. (2.) In a plummer-block, in combination, a horn and stop cast solid with the bed-plate of the machine, a removable block fitted between the said horn and stop, screws threaded into the said horn and provided with lock-nuts and wearing-plate, substantially as set forth. (3.) The combination and arrangement of parts comprising my improvements in plummer-block, substantially as and for the purposes set forth and illustrated.

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

No. 14930.—29th May, 1902.—JOHN JAMES COLLINS and RICHARD DACRE HARMAN, both of 203, Gloucester Street, Christchurch, Canterbury, New Zealand, Architects. Composition for rendering brick and stone work impervious to water.*

Claims.—(1.) A composition for rendering brick and stone work impervious to water, consisting of the ingredients mixed in proportions approximately set forth. (2.) A composition for rendering brick and stone work impervious to water, consisting of resin, paraffin wax, spirits of turpentine, and spirits of wine, mixed or combined in the manner set forth, and in proportions approximately as stated.

(Specification, 1s.)

No. 14939.—30th May, 1902.—THOMAS TAPLIN, of Dannevirke, Hawke's Bay, New Zealand, Surveyor. Improved apparatus in which compressed air is employed for raising liquids to a high level.*

Claims.—(1.) Apparatus for the purpose indicated consisting of the parts arranged, combined, and operating substantially as specified. (2.) The combination in apparatus for the purpose indicated of a liquid-container, an air-vessel, a pump for compressing air in said vessel, a pipe conveying liquid from the container to a cock through which is a port leading to a spout, a pipe connecting the air-vessel with said cock which has also a port leading to a pipe communicating with the top of the liquid-container, substantially as specified. (3.) The combination in apparatus for the purpose indicated of a liquid-container, an air-vessel, a pump for compressing air in said vessel, and a dynamo for operating said pump, substantially as specified.

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

No. 15395.—13th September 1902.—JOHN POPE VIBERT, Architect, and GEORGE COZENS, Customs Agent, both of High Street, Auckland, New Zealand. An improved closet.

Claim.—A closet or privy provided with separate receptacles for solids and liquids, and with a lip, funnel, spout, or saddle whereby the liquids and solids are separated at their sources and deposited in the receptacles intended for each, and a filter in the pan provided for liquids, substantially as and for the purposes specified, and as described and illustrated.

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

No. 15425.—19th September, 1902.—WILLIAM AGUSTINE COLLINS, of Wanganui, New Zealand, Settler. An improved appliance for holding the legs of cows.*

Claims.—(1.) In means for holding the legs of cows, a hollow sleeve, to one end of which is attached a pair of arms adapted to encircle the cow's leg, one of such arms being rigidly fixed to the sleeve, while the other arm is hinged thereto and is provided with an extension-piece beyond the hinge at an angle to the arm, in combination with a rod passing longitudinally through the sleeve and provided with a cross-head on its end encircling the arms, and means whereby such rod may be reciprocated within the sleeve so as to open and close the hinged arm and be locked in any position, as specified. (2.) In means for holding the legs of cows, a pair of arms attached to one end of a hollow sleeve, one of such arms being immovable, while the other is hinged and formed with an extension-piece beyond the hinge, a cross-head provided with apertures through which the arms are passed, such cross-head being secured to one end of a rod passing longitudinally through the sleeve, and means upon the other end of the rod whereby it may be reciprocated within the sleeve, in combination with a bowed spring attached to the outer surface of the sleeve and provided with a pin upon its inner face, indentations or teeth across the face of the rod, and a collar loosely surrounding the sleeve and spring by means of which the spring may be pressed down so as to cause its pin to engage with the indentations in the rod, as specified. (3.) The general arrangement, construction, and combination of parts in my "improved appliance for holding the legs of cows," as described and explained, as illustrated in the sheet of drawings, and for the several purposes set forth.

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

No. 15519.—14th October, 1902.—ALFRED WEAVER, of Riverslea Wool-scouring Works, Hastings, Hawke's Bay, New Zealand, Wool-scourer. Improved means or apparatus for washing wool.*

Claims.—(1.) The general construction, combination, and arrangement of parts constituting the improved wool-washing apparatus described and illustrated in Figs. 1 and 2 of the drawings—that is to say, two circular vats or vessels furnished with central boxes, the first of which vats or vessels is mounted at a higher level than the second, the said vats or vessels communicating with each other by means of a shoot furnished with a door, the first vat or vessel being supplied with water passing through a flume furnished with a valve (or through such flume and an overflow flume) from an elevated tank into which the water discharged from such vats or vessels is pumped by a suitable pump, and the second vat or vessel being supplied with water either from a tank supplied from an artesian well and communicating with the said vat or vessel by means of a flume furnished with a sliding valve, or from a dam on a creek communicating with the said vat or vessel by like means, or direct from an artesian well, a portion of the bottom of each vat or vessel being perforated and communicating with outlet-passages through which the water escapes into drains through which it passes into a catch-pit, and a sump from which the said water is pumped into the said elevated tank, the second vat or vessel communicating by means of an opening furnished with a sliding door with a draining-pit, the water from which also passes to the catch-pit and sump aforesaid, the aforesaid parts or

devices being arranged relatively to and co-operating with each other, essentially as and for the purposes described. (2.) The arrangement of two wool-washing vats in juxtaposition to each other, the first vat being mounted at a higher level than the second and communicating therewith by means of a shoot furnished with a door, the second vat having a discharge-opening furnished with a door, the aforesaid parts or devices being arranged relatively to and co-operating with each other, essentially as and for the purposes described, and illustrated in Figs. 1 and 2 of the drawings. (3.) The construction of wool-washing vats with bottoms having perforated portions situated slightly in advance of the points at which the water enters the said vats, and with outlet-passages in communication with the said perforated portions, these parts or devices being arranged relatively to and co-operating with each other essentially as and for the purposes described, and illustrated in the drawings. (4.) The combination with wool-washing vats of a catch-pit into which the water discharged from the said vats is conveyed by drains in order to recover a portion of the yolk contained in such water, essentially as described, and illustrated in Figs. 1 and 2 of the drawings. (5.) The combination with wool-washing vats of a catch-pit, sump, pump, and elevated tank, and their subsidiary drains, pipes, and flumes, for the purpose of reusing in the scouring and wool-washing processes as described a portion of the washing-water containing a portion of the yolk of the wool.

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

No. 15536.—16th October, 1902.—ROBERT LOUIS HOWELL MURRAY, of 193, Karangahape Road, Auckland, New Zealand, Electrician. An improved wood-fuel water-heater.

Claim.—The introduction of ribs between the inner and outer cylinders of water-heaters so as to prevent the water rising before it is properly heated, and in the general arrangement and construction and combination of parts as set forth in the drawings and specification.

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

No. 15824.—31st December, 1902.—TOM SUTCLIFFE, of 18, Allerton Road, Stoke Newington, London, England, Engineer. A machine for aerating liquids and bottling same.

Claims.—(1.) In a machine for aerating or carbonating liquids, a mixing or carbonating chamber, a pump situated in alignment with said chamber, a piston or bucket-rod of sufficient length to extend thereto, an agitator within said chamber carried by the pump-rod, and a forked connecting-rod connecting the pump-rod to a crank, all for the purposes and substantially as set forth. (2.) In a machine for aerating or carbonating liquids, the combination of a standard 4 fixed on a base 5, bearings on said standard, a spindle 6 carried in said bearings, a crank wheel 7 fixed at one end of said spindle, a crank 9 formed with a slot and having a scale marked thereon fixed to the other end of the said spindle, a crank-pin 10 adjustable in said slot, a pump 12, a mixing-chamber 11, the pump-rod 14 entering said mixing-chamber, and an agitator fixed to said pump-rod, all for the purposes and substantially as set forth. (3.) A machine for filling bottles or other vessels with aerated beer or other liquors of a foaming character, having in combination a standard 4 fixed on a base 5, bearings on said standard, a spindle 6 carried in said bearings, a crank-wheel 7 fixed at one end of said spindle, a crank 9 formed with a slot and having a scale marked thereon fixed to the other end of said spindle, a crank-pin 10 adjustable in said slot, a pump 12, a mixing-chamber 11, the pump-rod 14 entering said mixing-chamber, an agitator fixed to said pump-rod, and a tube situated at the filling-head adapted to be raised and lowered as required by a cam on the main spindle of the machine, all for the purposes and substantially as set forth.

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

No. 15856.—10th January, 1903.—FREDERICK WILLIAM FEAVER, of 12, Lawrence Road, South Norwood, Surrey, England, Metal-worker. Improvements in the manufacture of sheet-metal cans or boxes and apparatus therefor.

Claims.—(1.) Apparatus for grooving the lids or covers of sheet-metal cans or boxes, wherein a die, having ribs upon it corresponding with the grooves to be formed, is arranged to co-operate with pressure rollers in such a manner that when the said die and rollers are rotated relatively with one another the said ribs will be pressed into a sheet of metal placed between the die and rollers, substantially as described. (2.) In apparatus for grooving the lids of sheet-metal cans or boxes, the combination of a rotary die having ribs upon it, pressure rollers mounted in a block adjacent to the said die, and means for moving the said block with the pressure rollers towards the die, substantially as described. (3.) In apparatus for grooving the lids or covers of sheet-metal cans or boxes, the combination of a cutting die adapted to be in-

termittently rotated and of pressure rollers mounted in a block reciprocated relatively with the said rotary die, substantially as described. (4.) The improved apparatus for grooving the lids or covers of sheet-metal cans or boxes, consisting of the parts constructed and combined substantially in the manner described, and operating as and for the purposes set forth. (5.) A sheet-metal box or can the lid or cover of which has grooves formed by means of apparatus substantially as described, and wherein a portion of the metal between the grooves is pressed up and has a tongue attached to it for facilitating the tearing-out of the strip, substantially as set forth.

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

No. 15870.—15th January, 1903.—BRYAN TULLY, of Victor, Teller, Colorado, United States of America, Inventor. Improvements in barrel filters.

Claims.—(1.) A filter of the class described, comprising a rotatable barrel provided with an acid-proof lining arranged in intimate contact with the interior of the barrel, for preventing the solvent coming in contact with the barrel, and filters formed in the body of the lining, said barrel being apertured at the points where the filters are located, substantially as described. (2.) A filter of the class described, comprising a rotatable barrel provided with a lead lining, the body of the barrel being provided with outlets, and the lining being perforated opposite said outlets, substantially as described. (3.) A filter of the class described, comprising a rotatable barrel provided with a lead lining, the body of the barrel being provided with apertures and the lining being perforated opposite said apertures, a launder arranged on the exterior of the barrel and provided with a plurality of branch pipes, said branch pipes at their inner ends being fitted in said apertures and connected to the lead lining about said perforations, substantially as described. (4.) A filter of the class described, comprising a rotatable barrel provided with a lead lining, the body of the barrel being provided with apertures and the lining being perforated opposite said apertures, a lead launder arranged on the exterior of the barrel and provided with a plurality of lead branch pipes, said branch pipes at their inner ends being fitted in said apertures and connected to the lead lining about said perforations, substantially as described. (5.) A filter of the class described, comprising a rotatable barrel provided with a lead lining, a lead launder arranged on the exterior of the barrel, a plurality of laterally projecting branch pipes, said pipes at one end being fused to the launder and at their ends extending through the shell or body of the barrel and fused to the lead lining, the lead lining being perforated at the points where the branch pipes are connected to it, substantially as described. (6.) A filter of the class described, comprising a rotatable barrel provided with a lead lining, a launder arranged on the exterior of the barrel and parallel to the longitudinal axis of the latter, branch pipes connected at their outer ends to the launder and extending at their inner ends through the body of the barrel and united to the lead lining, said lead lining opposite the inner ends of each of said branch pipes being provided with a circular series of perforations, substantially as described. (7.) A filter of the class described, comprising a rotatable barrel provided with an acid-proof protective lining in direct contact with the interior of the barrel, and filter formed in the body of said lining, said lining being impervious to the solution at all points excepting those wherein the filters are located, substantially as described. (8.) A filter of the class described, comprising a rotatable barrel, an acid-proof lining fitted within said barrel and in close contact with the interior thereof, filters formed in the body of the lining, said barrel being apertured opposite the filters, and a launder arranged exteriorly of the barrel and in communication with the filters, substantially as described. (9.) A filter of the class described, comprising a rotatable cylindrical barrel, and an acid-proof protective lining arranged in contact with the barrel, a filter located within the body of said lining, and a launder arranged exteriorly of the barrel and connected with said filter, substantially as described. (10.) A filter of the class described, comprising a cylindrical rotatable barrel provided with an acid-proof lining closely conforming to the interior of the barrel and provided with a plurality of circular series of perforations, pipes secured at the inner ends to the lining about the circular series of perforations, and a launder arranged on the exterior of the barrel and connected to all of said pipes, for the purpose specified.

(Specification, 5s. 6d. ; drawings, 2s.)

No. 15871.—15th January, 1903.—Dr. HERMANN PASSOW, of 33, Billhorner Röhrendamm, of Hamburg, Germany, Manager. New and improved process for producing cement.

Claims.—(1.) Process of producing cement consisting in mixing air-granulated slag of glassy structure or dried slag sands, which in a ground state do not show any or only a

small rising in temperature when treated with carbonic acid, with roasted water-granulated slags or with air-granulated slags of pumiceous structure, which in a stream of carbonic acid show a great rising in temperature, substantially as described. (2.) The addition of a small quantity of a normal Portland cement, or other materials containing disposable lime, to the product of the process claimed in claim 1, for the purpose of regulating the time of setting or other qualities, substantially as described. (3.) A modification of the process claimed in claim 1, characterized thereby that to the slags not reacting with carbonic acid, Portland cement, Roman cement, hydraulic lime, or other substances containing disposable lime or forming such lime are added instead of adding the slags reacting with carbonic acid, substantially as described.

(Specification, 7s.)

No. 15873.—12th January, 1903.—EDWYN ALBERT HOLDEN, of Ashfield, Cumberland, New South Wales. An automatic lubricator.

Claim.—For lubricating purposes, in combination, an oil-cup, a contracted part or sump the bottom of which is in the form of an inverted cone, a leak-hole at the apex of the cone, a ball within the sump which shall overlie the aperture of the leak when the apparatus is at rest, and a hollow pillar extending upwards from the sump, such pillar being provided with means whereby the oil may, by capillary attraction, be conveyed from the oil-cup to the sump, as specified.

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

No. 15874.—14th January, 1903.—WILLIAM MCCALLUM, of Kyeburn, Dredgeman, and EDWARD ROBERTS, of Dunedin, Consulting Engineer, both of Otago, New Zealand. An improved revolving screen.

Claims.—(1.) In revolving screens, the combination of the usual circular ends, races, and gearing, with the screening portion made and formed to an irregular cross-section for the purpose of turning the material to be screened and within the screen over and over to facilitate thorough screening, all substantially as described and as explained, and as illustrated in the drawing. (2.) In revolving screens, in combination, the usual races and gearing, with the whole body of the screen made and formed to an irregular cross-section for the purpose of turning the material to be screened and within the screen over and over to facilitate thorough screening, all substantially as described and as explained, and as illustrated in the drawing. (3.) In revolving screens, in combination with the usual races and driving gearing, either the screening portion or the whole body of the screen made and formed to a polygonal form, substantially as and for the purposes already set forth, and as illustrated in the drawing.

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

No. 15877.—19th January, 1903.—JOHN WILSON TONG, of New Plymouth, New Zealand, Builder. An improved siphon.

Claims.—(1.) A siphon comprising a tube bent into U shape, having one member of the U longer than the other, a piston reciprocable within the longer member, an air plug or valve near the top of the apparatus and between the two members, and a discharge tap or branch near the bottom of the longer member, substantially as and for the purposes specified. (2.) In a siphon for withdrawing liquids from a containing-vessel, a piston reciprocable within the longer member of the siphon, an opening in the side of the piston for the passage of liquid closable by a washer upon the piston-rod, and a nut upon the end of the piston-rod adapted to engage the underside of the piston when said rod is drawn up. (3.) In apparatus for the purposes indicated and as described, a reducing-socket upon the longer member of the siphon, and a screw-cap for closing one end of the said reducing-socket, substantially as and for the purposes specified. (4.) In apparatus for the purposes indicated, the means described for adjusting the depth of one member of a siphon in the liquid upon which it is desired to operate, consisting of a bridle surrounding the two members of the siphon, and having a thumb-screw by means of which its position upon the said members may be adjusted, substantially as and for the purposes specified and illustrated.

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

No. 15880.—15th January, 1903.—THOMAS HEWTON, of Waianakarua, New Zealand, Mill-manager. Improved self-tightening nut and washer.

Claims.—(1.) In bolts and nuts that are for use in places where they are liable to be shaken loose, the combination of a nut and washer formed to fit one another in the form of a

clutch, with a spring fitting over both nut and washer in tension so as to move the nut and washer further apart by sliding up the inclined surfaces of the clutch-face, all substantially as set forth and for the purposes indicated. (2.) In bolts and nuts and washers, in combination, a nut and washer fitted where they meet with inclined clutch-faces, with a spring arranged to continually press nut and washer apart laterally by sliding them up said inclined faces, thus taking up and maintaining any possible slack that may be had by shaking or rattling of the material bolted, all substantially as described and explained, and as illustrated in the drawing. (3.) The taking up of any slack caused by shaking or wearing of the like and solidly maintaining same by means of a nut, washer, and spring, with a lock-nut when needed, used with an ordinary bolt, all substantially as shown on the drawing and described and explained.

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

No. 15887.—19th January, 1903.—ARTHUR KITSON, of York Mansion, York Street, Westminster, England, Managing Director to the Kitson Lighting Company of Great Britain (Limited). Improvements in or pertaining to vapour-burning apparatus.

Claims.—(1.) In vapour-burning apparatus of the kind referred to, the combination of a vertically arranged burner-tube having inlets near its lower end, a perforated diaphragm across its upper end, a diaphragm across the said burner-tube below the level of the said inlets, and a vertical vaporizing-tube, closed at the upper end, passing through the upper and inserted into the lower diaphragm, and arranged to discharge a jet of vapour below the level of the lower diaphragm. (2.) In vapour-burning apparatus of the kind referred to, the combination of a vertically arranged burner-tube having inlets near its lower end, a perforated diaphragm across its upper end, a diaphragm across the said burner-tube below the level of the said inlets, and a vertical vaporizing-tube, closed at the upper end, passing through the upper and inserted into the lower diaphragm, and arranged to discharge a jet of vapour below the level of the lower diaphragm, the discharge-nozzle of the said vaporizing-tube having an upward extension located within the said vaporizing-tube, and forming in the lower portion thereof a trap in which unvaporized oil may collect. (3.) In vapour-burning apparatus of the kind referred to, the combination of a vertically arranged burner tube provided with air and vapour inlets, a perforated diaphragm across its upper end, a diaphragm across the said burner-tube below the level of the said air and vapour inlets, and a vertical vaporizing-tube passing through the upper and inserted into the lower diaphragm, and having a discharge-nozzle in its lower end, whilst its upper end is closed, the said discharge-nozzle having an upward extension located within said vaporizing-tube, and forming in the lower portion of the vaporizing tube a trap in which unvaporized oil may collect, together with an oil-supply tube arranged to discharge into the said trap, means for conducting air to the vapour-jet, and means for conducting the mixture of air and vapour so formed to the aforesaid air and vapour inlets. (4.) In vapour-burning apparatus of the kind referred to, the combination of a vertically arranged burner-tube provided with air and vapour inlets, a perforated diaphragm across its upper end, a diaphragm across the said burner-tube below the level of the said air and vapour inlets, and a vertical vaporizing-tube passing through the upper and inserted into the lower diaphragm, and having a discharge-nozzle in its lower end, whilst its upper end is closed, together with a mixing-tube below the said vaporizing-tube, a condensing-chamber closed at the bottom and having its walls joining the burner-tube at a point above the level of the said air and vapour inlets, and air-inlet tubes extending from apertures in the wall of said condensing-chamber to air-inlets in the said mixing-tube. (5.) In vapour-burning apparatus of the kind referred to, the combination of a burner having an annular perforated diaphragm, a central perforated sleeve forming an inward continuation of the said diaphragm, and a closed-ended vaporizing-tube extending into the space within the said perforated sleeve, substantially as described. (6.) In vapour-burning apparatus of the kind referred to, the combination of a vertically arranged burner-tube, a perforated diaphragm across the upper end, a vertical vaporizing-tube passing through the said diaphragm and having a discharge-nozzle in its lower end, whilst its upper end is closed, a mixing-tube into which the vaporizing-tube nozzle discharges, a condensing-chamber within which the mixing-tube is enclosed, and air-inlet tubes extending from apertures in the wall of the said condensing-chamber to air-inlets in the wall of the said mixing-tube. (7.) Vapour-burning apparatus according to any of the preceding claims wherein suitable means, as wire gauze or a coil or bundle of wire, for causing carbon to be deposited upon itself rather than upon the vaporizing-tube or upon a tube inserted therein are provided in the space between the peripheral wall of the said vaporizing-tube and

that of the said inserted tube. (8.) Vapour-burning apparatus of the kind referred to, comprising a vertical vaporizing-tube which is arranged to extend within a mantle, is closed at its upper end, and has within it a tube so shaped as to leave vacant between its peripheral wall and that of the vaporizing-tube a space of small cross-section, into which opens an oil inlet, so that oil supplied therethrough will be compelled to pass up in the said space and be vaporized by contact with the vaporizing-tube as will then descend through the internal tube into a mixing-tube which is provided with means for admitting air from the external atmosphere, and is contained in and opens into a condensing-chamber in communication with the burner, substantially as described, the said space preferably containing a suitable means, as wire gauze or a coil or bundle of wire, for causing carbon to be deposited upon itself rather than upon the vaporizing-tube or upon a tube inserted therein. (9.) The improved vapour-burning apparatus constructed and arranged as described with reference to and shown respectively in Figs. 1, 2, and 3 and in Fig. 4 of the drawings.

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

No. 15892.—21st January, 1903.—HERMAN CHARLES WOLTERBECK, of 3, Edinburgh Mansions, Howick Place, Victoria Street, London, England, Consulting Chemist. Process for producing ammonia by synthesis.

Claims.—(1.) The process for the synthetical production of ammonia, consisting in passing a mixture of air and a gas containing hydrogen in the presence of water-vapour over iron-oxide heated to a dull-red heat. (2.) The process for the synthetical production of ammonia, consisting in passing a mixture of air and a gas containing hydrogen in the presence of water-vapour over an oxygen-carrier metallic oxide heated to a dull-red heat. (3.) The process for the production of ammonia, consisting in passing a mixture of nitrogen and oxygen and a gas containing hydrogen in the presence of water-vapour over iron-oxide heated to a dull-red heat. (4.) The process for the production of ammonia, consisting in passing a mixture of nitrogen and oxygen and a gas containing hydrogen in the presence of water-vapour over an oxygen-carrier metallic oxide heated to a dull-red heat.

(Specification, 2s. 6d.)

No. 15898.—23rd January, 1903.—MURRAY CORRINGTON, of 40, Wall Street, New York, United States of America, Engineer. Improvements in automatic fluid-pressure brake apparatus for railway vehicles.

Claims.—(1.) In a fluid-pressure brake mechanism, the combination with a triple valve having connections leading to a train-pipe, an auxiliary reservoir, and a brake-cylinder respectively, of a supplemental piston for forcing the triple valve into its normal or release position, and a second valve-device, actuated by an increase of fluid pressure independently of the movement of the triple-valve piston, for varying the pressures on said supplemental piston, whereby the same may be actuated to force the triple valve into its normal or release position. (2.) In a fluid-pressure brake mechanism, the combination with a triple valve having connections leading to a train-pipe, an auxiliary reservoir, and a brake cylinder respectively, of a supplemental piston normally exposed to fluid under pressure for effecting the movement of the triple valve into the release position, a passage for releasing pressure from one side of said piston, and a valve-device actuated by an increase of pressure, independently of the movement of the triple-valve piston, for controlling said passage. (3.) In a fluid-pressure brake mechanism, the combination with a triple valve of a recharging-passage for admitting pressure from train-pipe to reservoir while the triple valve is in brake-setting position, a supplemental piston for forcing the triple valve into its normal or release position, and a secondary valve-device actuated by an increase of fluid pressure, independently of the movement of the triple-valve piston, for varying the pressures on said supplemental piston, whereby the same may be actuated to force the triple valve into its normal or release position. (4.) In a fluid-pressure brake mechanism, the combination with a triple valve of a recharging-passage for admitting pressure from train-pipe to reservoir while the triple valve is in brake-setting position, a supplemental piston normally exposed to fluid under pressure for effecting the movement of the triple valve into the release position, a passage for releasing pressure from one side of said piston, and a valve-device actuated by an increase of pressure, independently of the movement of the triple-valve piston, for controlling said passage. (5.) In a fluid-pressure brake mechanism, the combination with a triple-valve device of a recharging-passage for admitting pressure from train-pipe to reservoir while the triple valve occupies the brake-setting position, a valve for controlling said recharging-passage and closing the same while brakes are off, and a supplemental valve-device actuated by a variation of

pressure, independently of the movement of the triple-valve piston, for causing the triple valve to move into release position. (6.) In a fluid-pressure brake mechanism, the combination with a triple valve of a supplemental valve, a valve-device actuated by a variation of fluid pressure, independently of the movement of the triple-valve piston, for controlling by its operation the ultimate movement of the triple valve to release position, and a passage controlled both by said supplemental valve and by said valve-device. (7.) In a fluid-pressure brake mechanism, the combination with a triple valve of a recharging-passage for admitting pressure from train-pipe to reservoir while the triple valve is in the brake-setting position, and ports in the main valve and the graduating valve of the triple valve forming parts of said recharging-passage, whereby said passage is controlled both by the main valve and the graduating valve. (8.) In a fluid-pressure brake mechanism, the combination with a triple-valve device of a service-passage for admitting pressure from reservoir to brake cylinder, a recharging-passage for admitting pressure from train-pipe to reservoir while the triple valve is in the brake-setting position, and a single valve operated by the triple-valve piston for controlling both of said passages so that one shall be open while the other is closed, and *vice versa*.

(Specification, 18s. ; drawings, 3s.)

No. 15899.—23rd January, 1903.—CLIFFORD WALMSLEY BARLEE SCOTT, of Pietermaritzburg, Natal, Solicitor. An improved wall distemper.

Claim.—An improved distemper for coating walls, ceilings, and the like, consisting of a clay and compound such as described, a colouring matter, and (if required) a disinfectant, proportioned and blended substantially as described.

(Specification, 1s. 6d.)

No. 15906.—27th January, 1903.—JAMES PALMER CAMPBELL, of Wellington, New Zealand, Solicitor (nominee of Peter Cooper Hewitt, of 11, Lexington Avenue, New York, United States of America, Scientist). Improvements in the method of and means for obtaining unidirectional current from a single-phase or polyphase alternating-current source.

Claims.—(1.) The method of obtaining a unidirectional current from a single-phase or polyphase alternating-current source by means of a device possessing a high negative electrode reluctance, which consists in annulling the negative electrode reluctance to the flow of current in one direction and maintaining a consequent condition of low reluctance at one electrode, and opposing the original high negative electrode reluctance to the flow of current in the other direction at the other electrode. (2.) For obtaining a unidirectional current from a polyphase alternating-current source, an arrangement having a negative electrode and a plurality of positive electrodes, each of the positive electrodes being connected to a separate lead from the source of polyphase currents, and the negative electrode being also connected to the said source of polyphase currents, substantially as described. (3.) The modification of the arrangement in which one of the positive electrodes is connected to the positive terminal of a source of direct current, the negative terminal of which is connected to the negative electrode, so that the device may be used with single-phase alternating current if desired. (4.) The various arrangements for obtaining unidirectional electric current from an alternating source, substantially as described.

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

No. 15907.—27th January, 1903.—AUGUSTINE WILLIAM SWIFT, of Oxford Terrace, Christchurch, New Zealand, Gentleman, and ROBERT HALL, of Cashel Street, Christchurch aforesaid, Hydropathist. An improved mould or die for plastic materials.

Claims.—(1.) A mould or die for plastic materials constructed, arranged, and operating as specified and illustrated. (2.) A mould or die for plastic material lined internally with glass and provided with means whereby lubricant is conveyed to the inner surface of said glass, being substantially as specified and illustrated. (3.) A mould or die for plastic materials comprising in combination an outer casing, a glass lining fixed therein, a flanged casing fitted around the broad end of the mould, a tube or pipe within the casing having perforations, and a pipe for supply of lubricant connected thereto, substantially as described and illustrated.

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

No. 15908.—27th January, 1903.—WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of George Gibbs, care of Rapid

Transit Subway Construction Company, of Park Row Building, New York, United States of America, Electrical Engineer). Improvements in signalling systems for electric railways.

Claims.—(1.) For railways operated electrically from a power station, a signalling system provided with means for preventing movement to the safety position of some or all of the signals of the track section supplied by said power-station when the demand for electric power on said station equals or exceeds a predetermined amount. (2.) For controlling the operation of the signals of an electric-railway system in the manner described, an electrically actuated device operated by current flowing in a control circuit, said circuit being provided with a switching mechanism for opening and closing the same in accordance with the amount of current flowing in the power circuit. (3.) The application of the invention to electric railways worked on the block system by causing the operation of the block signals to be governed in accordance with the load on the power station, irrespective of the positions of trains or vehicles on the various block-sections, substantially as described, and for the purpose specified. (4.) The modification of the invention in which the device for preventing the movement of the signal to its safety position also acts to return the signal to its danger position if it is not already in that position. (5.) For railways operated electrically from a power station, signalling systems provided with means for controlling the operation of the signals in accordance with the demand for power on the station, constructed and operating substantially as described with reference to the drawings.

(Specification, 14s. 6d. ; drawings, 3s.)

No. 15909.—27th January, 1903.—ARTHUR BERNARD GILL, of Carlton, Blackheath Park, London, England, Electrical Engineer. Improvements in apparatus for electrically lighting railway-trains.

Claims.—(1.) The improved manner of attaching to the carriage the dynamo A driven by strap from a wheel-axle F consisting in supporting it in a substantially vertical position from a horizontal bar B (Figs. 1 to 5), along which bar it can slide against the effort of a spring or weight D, or supporting it from a slanting bar B (Figs. 6, 7, and 8), along which bar it can slide against the effort of gravity, or supporting it by weights D in cords D¹ passing over pulleys D² (Figs. 9 and 10), so that in all cases movement of the dynamo in any direction, except in a plane at right angles to the axle, is prevented, and for the purpose of adapting the dynamo to be applied in a more secure and efficient manner, and for the purpose of being able to use larger dynamos. (2.) The improved means of reversing the direction of rotation of the dynamo characterized by that the rocking-arm M is entirely supported on an extension N¹ of the bearing N, and is partially rotated by friction between blocks O on spring plungers P working in guides Q and a groove formed by the flanges M¹ or M² on the boss of the rocking-arm M (Fig. 11), or by friction between blocks O on extensions V¹ of the governor arms V, and a rim M^x on the rocking-arm (Figs. 12 and 13), while the axial movement of the rocking-arm M is effected by the centrifugal action of the governor as described for the purpose of reducing the friction, lessening lubrication, and counteracting the effect of the parts wearing out of truth.

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

No. 15914.—28th January, 1903.—ALFRED HANKINSON, of 78, Pitt Street, Sydney, New South Wales, Importer. Improvements in miners' safety-lamps.

Claims.—(1.) The combination of a miner's safety-lamp of ordinary well-known construction with a burner having a wick tube in which there is one or more apertures through which the wick is engaged by a sharp-toothed wheel or wheels, said wheel or wheels being carried by a cross-shaft supported by suitable bearings and revolved by a worm-and-wheel gearing, which is operated by means of a button or other suitable appliance on the outside of the lamp, and a cap adapted to cover the mechanism and retain the said burner in position, substantially as and for the purpose described, and as illustrated in the drawings. (2.) In miners' safety-lamps, a burner having a wick-tube in which there is one or more apertures through which the wick is engaged by a sharp-toothed wheel or wheels, said wheel or wheels being carried by a cross-shaft supported by suitable bearings and revolved by a worm-and-wheel gearing, which is operated by means of a button or other suitable appliance on the outside of the lamp, and a cap adapted to cover the mechanism and retain the said burner in position, substantially as described, and as illustrated in the drawings.

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

No. 15915.—28th January, 1903.—WILLIAM PAYNE, of Orange, New South Wales, Assayer, and JAMES HYNDES GILLIES, of Dulwich Hill, New South Wales aforesaid, Mining Engineer. An improved process for the treatment of ores containing copper.

Claim.—An improved process for the treatment of ores containing copper, characterized by first crushing the ore, then adding thereto 1 to 5 per cent. of pyrites, then saturating the same with ferrous sulphate (mother-liquor) which has been obtained automatically by the previous working of the process, then drying and gradually heating the ore to a dull-red and afterwards dumping it into a vat containing the weak wash solution remaining from the treatment of the previous batch of ore, and finally the precipitation of the strong copper solution and the conservation of the weak wash solution, the former to be used for the saturation of the next batch of ore, and the latter to be used for the leaching of the same, substantially as described.

(Specification, 5s.)

F. WALDEGRAVE,
Registrar.

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

NOTE.—The cost of copying the specification and drawings has been inserted after the notice of each application. An order for a copy or copies should be accompanied by a post-office order or postal note for the cost of copying.

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

Provisional Specifications.

Patent Office,
Wellington, 4th February, 1903.

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

No. 14809.—1st May, 1902.—WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of the Mechanical Cashier Syndicate, Limited, of 111-113, Cophthall House, Cophthall Avenue, London, England—assignees of Isaac Strange Dement, of 108, Carnegie Avenue, East Orange, New Jersey, United States of America, Foster John Hull, of 250, Thirteenth Street, Brooklyn, New York, United States of America aforesaid, and Arthur D. King, of 20, Broad Street, New York aforesaid, Mechanical Engineers). Improvements in mechanical cashiers, registers, and recorders.

No. 15850.—9th January, 1903.—CHARLES FREDERICK LUNGLEY, of 2, Eville Place, Albert Park, Bourke, Victoria, Engineer. An improved aluminium-alloy.

No. 15864.—13th January, 1903.—DANIEL MOORE BROOKS, of 29, Molesworth Street, Wellington, New Zealand, Engineer. Improvements in fire-escapes.

No. 15869.—10th January, 1903.—ANDREW MCLEOD, of Exchange Building, Queen Street, Auckland, New Zealand, Engineer. An improved drill or borer for drilling or boring holes in rocks or other materials.

No. 15872.—15th January, 1903.—KING CAMP GILLETTE, of 94, Marion Street, Brookline, Massachusetts, United States of America, Manager. Improvements in safety and other razors.

No. 15875.—14th January, 1903.—ALFRED REGINALD HARDY, of Dunedin, New Zealand, Accountant. Improved scone for candlesticks.

No. 15876.—14th January, 1903.—WILLIAM RUSSELL COOPER, of Napier, Hawke's Bay, New Zealand, Accountant. An improvement in the handles of tennis-racquets, which improvement is applicable also to the handles of other articles used for the purposes of sport, and to the handles of tools.

No. 15878.—19th January, 1903.—WALTER BAXENDALE GIESEN, of Wanganui, New Zealand, Accountant. Improved contrivance for drying and airing clothes.

No. 15879.—17th January, 1903.—NEIL DICKSON HOOD, of Cobden, Greymouth, New Zealand, Marine Engineer. An improved non-refillable bottle.

No. 15881.—15th January, 1903.—RALPH DUNNE, of George Street, Dunedin, New Zealand, Picture-framer. Improved device for cutting mitres.

No. 15883.—17th January, 1903.—LANGHAM GEORGE WEALL GODDEN, of Nelson, New Zealand, Gentleman. An improvement in making button-holes in articles of wearing apparel.

No. 15884.—16th January, 1903.—JOHN COLLINGE, Jun., Blacksmith, and ADOLPHE THEODORE THORSTENSON, Carpenter, both of South Norsewood, Hawke's Bay, New Zealand. An improved clamp for cramping together flooring and other boards.

No. 15885.—19th January, 1903.—WILLIAM AGGERS, of Howe Street, Auckland, New Zealand, Upholsterer. Improvements in cushioned furniture and the like.

No. 15888.—19th January, 1903.—EWEN MACKENZIE McLAUCHLAN, of Springhills, Winton, New Zealand, Farmer. Improved means for steering ploughs and other similar implements.

No. 15889.—20th January, 1903.—WILLIAM ANDERSON, of Bowmont Street, Invercargill, Southland, New Zealand, Labourer. An improved clothes-line strainer.

No. 15890.—16th January, 1903.—MICHAEL BROWNE, of Gisborne, New Zealand, Fellmonger. Spring regulator and weight-compensator for vehicles.

No. 15891.—20th January, 1903.—DUNCAN URQUHART, of Islington, Canterbury, New Zealand, Engineer. A machine for printing sheep-bags and adjusting length of same in one operation.

No. 15893.—20th January, 1903.—ARTHUR JOHN HENRY LANGE and HENRY WHITE, both of Christchurch, New Zealand, Joiners. An improved clamp to be used in making picture-frames, and for other analogous purposes.

No. 15894.—23rd January, 1903.—GEORGE HUTCHINSON, of 23, Ellice Avenue, Wellington, New Zealand, Schoolmaster. An improved milking-machine.

No. 15896.—20th January, 1903.—JAMES ALEXANDER POND, of Remuera, Auckland, New Zealand, Analyst. An improved method of sterilising bones, bonedust, flesh and blood manures, or other material.

No. 15897.—23rd January, 1903.—SILVANUS GEORGE JEFFS, of Matangi, Waikato, New Zealand, Farmer. An improved gate-hinge.

No. 15900.—21st January, 1903.—TOM HARRY VICKERY, of 21, Hotham Place, Prahran, Victoria, Engineer. An improved shell for cream-separators.

No. 15901.—21st January, 1903.—ARTHUR WARD, of Waikawa Valley, New Zealand, Farmer. Yoke for pigs.

No. 15904.—26th January, 1903.—FRANCIS HENRY GREEN, of Riverton, New Zealand, Carpenter. Improved adjustable kettle hook.

No. 15905.—26th January, 1903.—ARTHUR McKEE, of 6, Customhouse Quay, Wellington, New Zealand, Publisher. Improved pictorial letter-card.

No. 15910.—24th January, 1903.—HUGH KERR, of Drummond, New Zealand, Farmer. Improvements in seed-sowers.

No. 15911.—24th January, 1903.—THOMAS FOSTER and THOMAS THOMSON PAUL, both of Manse Street, Dunedin, New Zealand, Bookbinders. Improvements in loose-leaf account-books.

No. 15913.—28th January, 1903.—THEODORE GEORGE ANDREW PARRY, of 23, Gloucester Street, Christchurch, New Zealand, Joiner. An improved castor.

No. 15916.—28th January, 1903.—JOHN JAMES BRYERS, of Rawene, Auckland, New Zealand, Hotelkeeper. Improved means for automatically turning the leaves of music.

No. 15917.—29th January, 1903.—CHARLES FREDERICK LUNGLEY, of 2, Eville Place, Albert Park, Bourke, Victoria, Engineer. An improved process for the extraction of titanium from ironsand.

No. 15918.—29th January, 1903.—CHARLES FREDERICK LUNGLEY, of 2, Eville Place, Albert Park, Bourke, Victoria, Engineer. An improved process for the manufacture of pig-iron, mild steel, white metal, and other alloys, from ironsand obtainable in New Zealand.

No. 15919.—29th January, 1903.—WILLIAM PEMBERTON JARVIE, of 31, Queen Street, Melbourne, Bourke, Victoria, Accountant (assignee of John Storer, of 31, Queen Street aforesaid, Chemical Engineer). An improved method of air-purification specially applicable to the working-faces of mines and quarries.

No. 15920.—27th January, 1903.—THOMAS MORRIS, of Dunedin, New Zealand, Manufacturer. An improved peg for fixing rabbit-traps, tent-ropes, &c.

No. 15921.—27th January, 1903.—SAMUEL WHITE, of Dunedin, New Zealand, Coachbuilder. Improved appliance for opening bottles containing soda water and the like.

No. 15922.—27th January, 1903.—ROBERT LIVINGSTONE LOCKERIE, of Mary Street, East Invercargill, New Zealand, Carpenter. Improved means for hanging sashes, doors, and the like.

No. 15923.—27th January, 1903.—ROBERT WALKER, of Moray Place, Dunedin, New Zealand, Plumber. Improved liquid aerator and cooler.

No. 15924.—27th January, 1903.—GIDEON BISH, of Bombay, Auckland, New Zealand, Blacksmith. An improved means for facilitating the adjustment of movable bodies of vehicles and suchlike, and the movable seats thereon.

No. 15926.—30th January, 1903.—WILLIAM BENJAMIN WALTERS, of Wellington, New Zealand, Engineer. An improved machine for treating flax and other fibres.

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 21st to 31st January, 1903, inclusive:—
Nil.

F. WALDEGRAVE,
Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 11706.—J. Smith, rotary motor. 21st January, 1903.
No. 12191.—J. Smith, motor. 21st January, 1903.

THIRD-TERM FEES.

No. 8306.—American Tobacco Company of New Zealand, Limited, making conical cigarettes. (H. Bilgram.) 29th January, 1903.
No. 8307.—American Tobacco Company of New Zealand, Limited, making conical cigarettes. (J. A. Bonsack.) 29th January, 1903.
No. 8308.—American Tobacco Company of New Zealand, Limited, making cigarette-tubes. (J. A. Bonsack.) 29th January, 1903.
No. 8309.—American Tobacco Company of New Zealand, Limited, cigarette-machine. (M. Kirshner.) 29th January, 1903.
No. 8339.—T. B. Lightfoot, cooling air, &c. 28th January, 1903.
No. 8522.—Biernatzki and Co., refrigerating-apparatus. (The Economical Refrigerating Company—G. F. Knox and E. L. Sharpneck.) 27th January, 1903.

F. WALDEGRAVE,
Registrar.

Notice of Request to amend Specification.

Patent Office,
Wellington, 4th February, 1903.

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

No. 14761.—17th April, 1902.—William Henry Gordon, of 69, Lyons Street South, Ballarat, Victoria, Engineer and Blacksmith. An improved hub or boss for fastening to a shaft any part of a machine that causes or is caused by the shaft to revolve.

The nature of the proposed amendments is as follows:—

1. To alter the title to "Improved means for securing hubs or bosses on rotatable shafts," lines 5 and 6, and 10, 11, 12, of page 1.

2. To strike out the words "in the County of Grenville, in the," line 8, page 1, and to insert the words "and Commonwealth of Australia" after "Victoria," line 9, page 1.

3. To insert the following paragraphs after the paragraph ending "following statement," line 14, page 1:—

"This invention consists in improved means whereby hubs or bosses may be readily fixed and adjusted on rotatable shafts in such a manner that the strain is distributed over a much greater surface of the shaft than heretofore, and the hub or boss held as firmly and in as true a bed as if shrunken on, whilst at the same time the shaft is not weakened by cutting a key-way therein.

"Referring to the accompanying drawings,—

"Fig. 1 is a vertical transverse section through a hub and shaft showing the parts loose before the key is inserted, and Fig. 2 is a similar view with the parts locked by the key, whilst Fig. 3 is a side elevation."

4. To insert the word "rotatable" before "part," line 15, and to strike out the words "that causes or is caused by the shaft to revolve," lines 15 and 16, page 1.

5. To strike out the words "to any extent and for a distance of," and to insert instead "for a part of its circumference, preferably," lines 18 and 19, page 1; and to strike out the words "half its circumference so as to allow of the free revolution of the shaft (a) within this enlargement," and to insert instead "and so that the shaft fits loosely therein," line 19, page 1, and lines 1 and 2, page 2.

6. To omit the words "or tapering key-ways," lines 2 and 3, to insert the word "is" before "cut" and "said" instead of "this," and to omit "aforesaid," line 3, page 2.

7. To insert, instead of the words "or within this said enlargement," the words "or a plurality of such key-

B

ways may be provided"; and instead of "and a tapering key (d) or tapering keys made to fit the said key-way (c) or these said key-ways," the words "and a tapered key (d) is made to fit this key-way (c) or keys made to fit these key-ways," lines 4 and 5, page 2.

8. To strike out the words "Place the part of machinery (b) which is to be fastened to the shaft (a) upon," and insert instead, "In putting this invention into practice, the boss or hub (b) is slipped over," lines 6 and 7, page 2.

9. To omit the words "and in as nearly its correct position as possible," and the words "drive home the key (d)," lines 7 and 8, page 2, and to insert instead the words "the tapered key (d) driven."

10. After the word "position," line 11, page 2, to insert the sentence "In this manner a large bearing-surface is obtained with much more satisfactory results than heretofore."

11. To omit the five claims and insert the following claim:—

"Improved means for securing bosses or hubs on rotatable shafts, said means consisting in an otherwise truly bored boss having a portion of the circumference of its bore enlarged diametrically, and a key way or ways in said enlargement for a locking key or keys, substantially as and for the purposes specified, and as illustrated in the drawings."

The applicant's agent states: "My reasons for making this amendment are as follows: I am advised that the amendments are necessary in order to clearly describe the invention and define the claimable matter."

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent abandoned.

LIST of applications for Letters Patent (with which provisional specifications only have been filed) abandoned from the 22nd January to the 4th February, 1903, inclusive:—

No. 14667.—H. M. Levinge, automatically lighting and extinguishing street-lamps.

No. 14668.—T. H. Brown and J. E. Staples, branding-fluid.

No. 14673.—S. O. Keoghan, releasing horses from stable.

No. 14674.—S. O. Keoghan, fastening end of machinery-belt.

No. 14675.—S. O. Keoghan, balancing window-sashes.

No. 14685.—T. McNaught, horse-cover.

No. 14692.—O. Thompson, culinary instrument.

No. 14696.—A. W. Jones and S. McFarland, picture-frame.

No. 14699.—C. J. Cooze, independent lock-nut.

No. 14700.—C. J. Cooze, fire-escape.

No. 14701.—G. Carrington, bacon-slicer.

No. 14702.—J. H. Seymour and W. Wardrop, hat-fastener.

No. 14704.—J. Macalister, seed-sower.

No. 14705.—J. Macalister, seed-sower.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent lapsed.

LIST of applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 22nd January to the 4th February, 1903, inclusive:—

No. 13847.—J. C. Newell, music-leaf turner.

No. 13851.—J. W. North, securing hat to head.

No. 13875.—T. Rawlinson, spark-arrester.

F. WALDEGRAVE,
Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of renewal fees from the 22nd January to the 4th February, 1903, inclusive:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 11100.—D. W. McLean, holder and cutter for reel of cotton.

No. 11104.—R. P. Elmore, rock-drilling machine.

No. 11107.—D. Dunn, vamping-appliance.

No. 11109.—P. Treseder and J. A. Jackson, cigar and cigarette.

No. 11110.—B. Green, velocipede.

No. 11111.—T. B. Abbott, handle for kerosene-tin.

No. 11115.—G. Lovell, slash- or bill-hook.

No. 11118.—W. S. Andrews and J. Boock, spring balance and ready reckoner.

No. 11126.—W. Y. Wah, fastener for fixing hose-piping to nozzle.

No. 11129.—A. H. Cotton, hair-comb, &c.

No. 11693.—G. de Bechi, complex ores.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

No. 8005.—J. B. Jackson, sheep-shearing machine.

No. 8008.—W. Rowbotham, galvanic battery.

F. WALDEGRAVE,
Registrar.

Applications for Registration of Trade Marks.

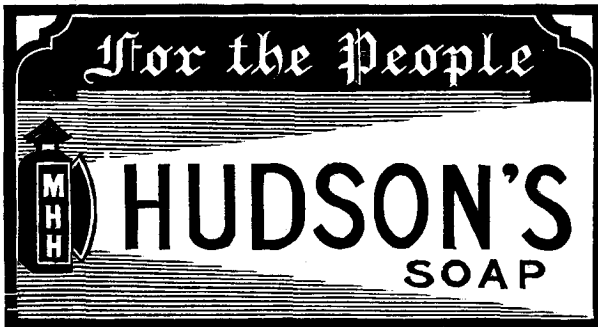
Patent Office,
Wellington, 4th February, 1903.

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: 3943.

Date: 19th September, 1902.

TRADE MARK.



The essential particular of this trade mark is the distinctive label; and applicant disclaims any right to the exclusive use of the added matter, except his name.

NAME.

ROBERT WILLIAM HUDSON, trading as "R. S. Hudson," of Bank Hall, Liverpool, in the County of Lancaster, and West Bromwich, in the County of Stafford, both in England. Chemical manufacturer.

No. of class: 47.

Description of goods: Soap, soap-powders, and other preparations of soap for laundry purposes.

No. of application: 4036.

Date: 19th December, 1902.

TRADE MARK.

The word

PHEROPHON.

NAME.

S. HOFFNUNG AND Co. (1902), LIMITED, a registered company of Great Britain, carrying on the business of General Merchant at 102, Fore Street, London, E.C., England, and at 165, 167, 169, Pitt Street, Sydney, in the State of New South Wales and Commonwealth of Australia, and elsewhere.

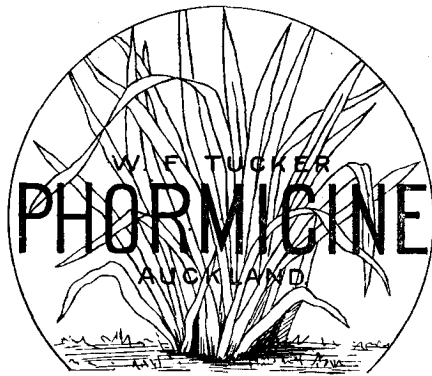
No. of class: 8.

Description of goods: Telephones and distance talking-instruments, specially those for domestic and house and the like use (including parts and accessories), and cognate articles and materials.

No. of application: 4060.

Date: 19th January, 1903.

TRADE MARK.



NAME.

WILLIAM FRANCIS TUCKER, of Commerce Street, in the City of Auckland, in New Zealand, Manufacturer.

No. of class: 3.

Description of goods: Medicated articles.

No. of application: 4061.

Date: 20th January, 1903.

TRADE MARK.



The essential particular of this trade mark is the distinctive label comprising the word "Flora" upon a card, a floral device, and a pen crosswise of the whole; and applicant disclaims any right to the exclusive use of the added matter, save and except his name and address.

NAME.

ALFRED BILLENS, of Christchurch, New Zealand, Manufacturer.

No. of class: 39.

Description of goods: Ink.

No. of application: 4062.

Date: 21st January, 1903.

TRADE MARK.

The word

NERVA.

NAME.

MARSHALL'S CHEMICAL COMPANY, LIMITED, Dunedin, New Zealand, Manufacturers.

No. of class: 3.

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

No. of application: 4065.

Date: 23rd January, 1903.

TRADE MARK.



The essential particulars of this trade mark are the bird device and the word "Jay"; and applicant company disclaims any right to the exclusive use of the added matter.

NAME.

JOHN SMEDLEY, LIMITED, of Tea Mills, Matlock, Derbyshire, England, Manufacturers.

No. of class: 38.

Description of goods: Articles of clothing.

No. of application: 4066.

Date: 23rd January, 1903.

TRADE MARK.



NAME.

JOHN SMEDLEY, LIMITED, of Tea Mills, Matlock, Derbyshire, England, Manufacturers.

No. of class: 38.

Description of goods: Articles of clothing.

No. of application: 4067.

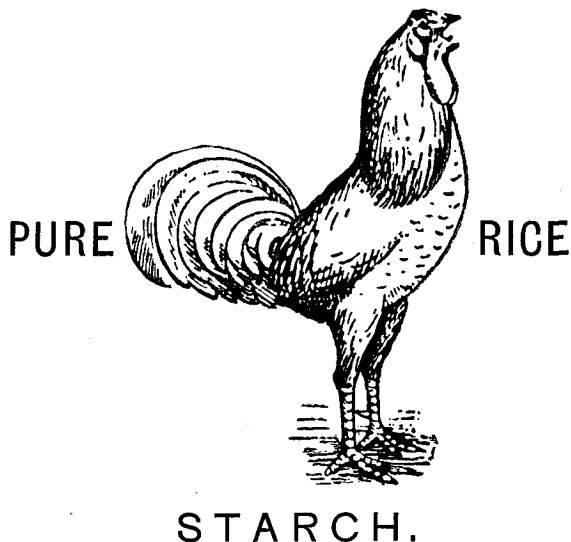
Date: 24th January, 1903.

TRADE MARK.

"DEFIANCE"

BRAND.

"BEATS THEM ALL."



The essential particulars of this trade mark are the device and the word "Defiance"; and applicants disclaim any right to the exclusive use of the added matter.

NAME.

JOSEPH NATHAN AND COMPANY, LIMITED, of Wellington, New Zealand, Merchants.

No. of class: 47.

Description of goods: Starch.

No. of application: 4070.

Date: 28th January, 1903.

TRADE MARK.

The word

THROGMORTON.

NAME.

J. LYONS AND COMPANY, LIMITED, of Cadby Hall, Kensington, London, England, Merchants, Blenders, Purveyors, and Refreshment Contractors.

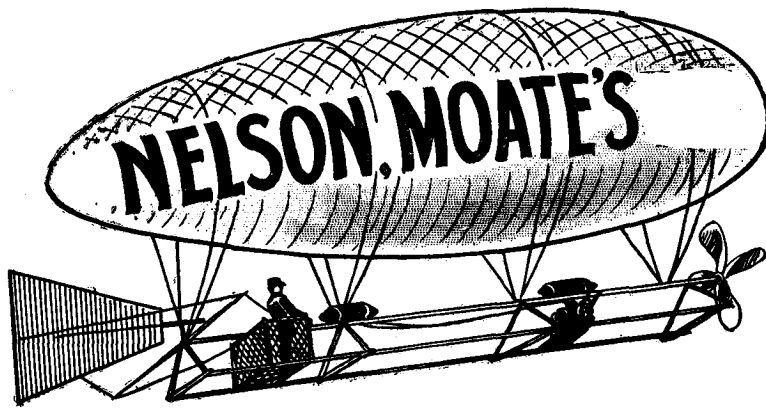
No. of class: 43.

Description of goods: Whisky.

No. of application: 4057.

Date: 13th January, 1903.

TRADE MARK.



FAR ABOVE ALL OTHERS
STILL RISING IN PUBLIC ESTIMATION



The essential particular of this trade mark is the device of an aerial machine; and applicants disclaim any right to the exclusive use of the added matter, save their name.

NAME.

NELSON, MOATE, AND COMPANY, LIMITED, Mercer Street, Wellington, New Zealand.

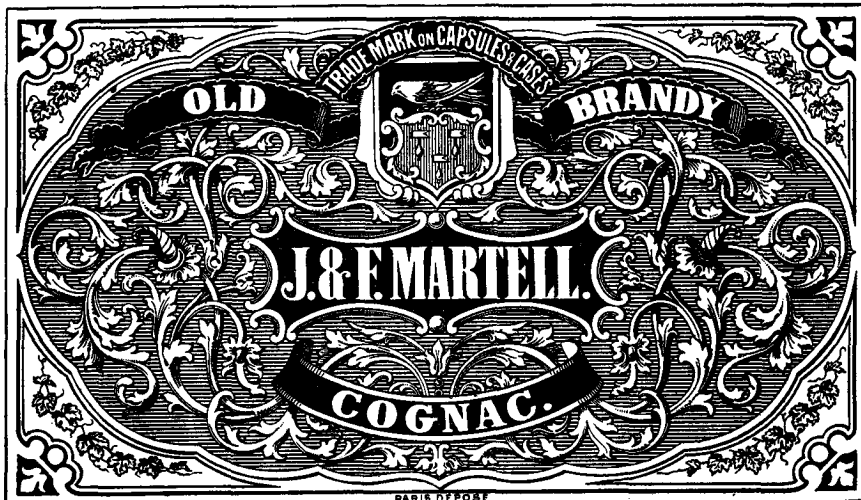
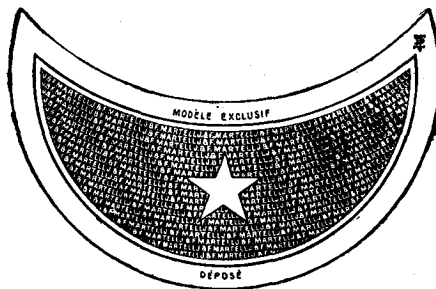
No. of class: 42.

Description of goods: Tea, coffee, spices, jams, baking-powder, cereals, olive-oil, hops, malt, dried fruits, sago, sugar, preserved meats, confectionery, pickles, vinegar, cider, condiments.

No. of application: 4068.

Date: 28th January, 1903.

TRADE MARK.



The essential particulars of this trade mark are the words "J. & F. Martell," the coat-of-arms on the shield above such words, and the particular design and arrangement of the arabesque work, scrolls, and vine-leaves in the rectangular label, and the words "J. & F. Martell" in the crescent-shaped label. The applicants claim that the said trade mark has been in use by them and their predecessors in business in respect of the article mentioned for fifty years.

NAME.

MARTELL AND Co., of Cognac, France, Brandy-merchants.

No. of class: 43.

Description of goods: Brandy.

No. of application: 4071.
Date: 28th January, 1903.

TRADE MARK.



The essential particulars of the trade mark are the device of a Japanese woman and the distinctive label; and applicants disclaim any right to the exclusive use of the added matter, save and except their name and address.

NAME.

MAX GERSTENDORFER and ALBERT GERSTENDORFER, a firm trading as "Gerstendorfer Bros.," of 43, Park Place, New York City and State of New York, United States of America.

No. of class: 1.

Description of goods: Paints, enamels, varnishes, lacquers, and aluminium and bronze paints and powders.

No. of application: 4072.
Date: 28th January, 1903.

TRADE MARK.



The essential particular of the trade mark is the device of an easel supporting a rectangular framed panel; and applicants disclaim any right to the exclusive use of the added matter, except their name and address.

NAME.

MAX GERSTENDORFER and ALBERT GERSTENDORFER, a firm trading as "Gerstendorfer Bros.," of 43, Park Place, New York City and State of New York, United States of America.

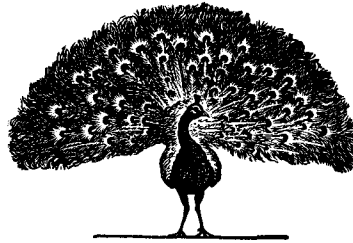
No. of class: 1.

Description of goods: Paints, enamels, varnishes, lacquers and aluminium and bronze paints and powders.

No. of application: 4073.
Date: 28th January, 1903.

TRADE MARK.

PEACOCK BRAND.



NAME.

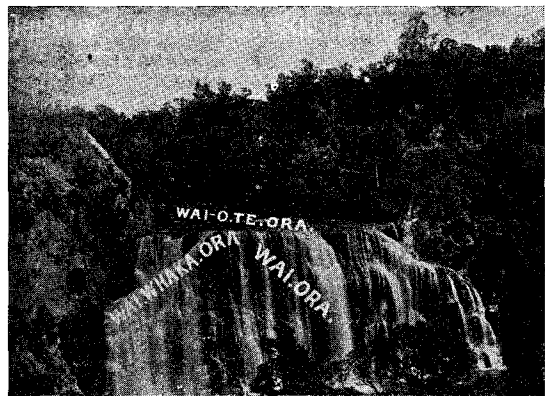
GRIFFITHS BROTHERS AND Co., 29, Mack's Road, Bermondsey, London, England, Paint, Colour, and Varnish Manufacturers.

No. of class: 1.

Description of goods: Chemical substances used in manufactures, photography, or philosophical research, and anti-corrosives.

No. of application: 4074.
Date: 28th January, 1903.

TRADE MARK.



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

NAME.

JOHN FABIAN, Queen Street, Auckland, New Zealand, Hotelkeeper.

No. of class: 3.

Description of goods: Rheumatic cure.

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 23rd January to the 4th February, 1903, inclusive:—

No. 3111; 3976.—The Iceberg Butter-box Syndicate. Class 50. (*Gazette* No. 94, of the 13th November, 1902.)

No. 3112; 3979.—Aulsebrook and Co. (R. E. McDougall, Proprietor). Class 42. (*Gazette* No. 94, of the 13th November, 1902.)

No. 3113; 3623.—Stanley Newcomb and Company. Class 39. (*Gazette* No. 3, of the 9th January, 1902.)

No. 3114; 3964.—Vacuum Oil Company. Class 47. (*Gazette* No. 83, of the 16th October, 1902.)

No. 3115; 3828.—Eltham Co-operative Dairy Factory Company, Limited. Class 42. (*Gazette* No. 50, of the 27th June, 1902.)

No. 3116; 4004.—A. M. and A. Hertzberg and B. Cohen. Class 3. (*Gazette* No. 99, of the 27th November, 1902.)

No. 3117; 3991.—J. Nathan and Co., Limited. Class 47. (*Gazette* No. 94, of the 13th November, 1902.)

No. 3118; 3992.—J. Nathan and Co., Limited. Class 50. (*Gazette* No. 94, of the 13th November, 1902.)

F. WALDEGRAVE,
Registrar.

Subsequent Proprietors of Trade Mark registered.

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

NOs. 84/2641 and 85/263.—Evans, Sons, Lescher, and Webb, Limited, of 56, Hanover Street, Liverpool, in the County of Lancaster, England, Wholesale and Export Druggists and Manufacturing Chemists. [Evans, Sons, and Co.] 2nd February, 1903.

F. WALDEGRAVE,
Registrar.

Request for Correction of Clerical Error in Trade Mark Application.

NO. 4029.—M. Allen. (Advertised in Supplement to *New Zealand Gazette*, No. 2, of the 8th January, 1903.)
To alter the name "Allen" to "Allart."

F. WALDEGRAVE,
Registrar.

Trade Mark Application withdrawn.

THE following application for Trade Mark has been withdrawn, viz.:

No. 4049.—Griffiths Brothers and Co. (Advertised in Supplement to *New Zealand Gazette*, No. 2, of the 8th January, 1903.)

F. WALDEGRAVE,
Registrar.

Trade Mark Renewal Fee paid.

FEE paid for renewal of undermentioned Trade Marks for fourteen years from the 1st January, 1904:—

No. 82/4760.—Heidsieck and Co. (six trade marks). 26th January, 1903.

F. WALDEGRAVE,
Registrar.

Alphabetical List of Applicants for Letters Patent for Quarter ending 31st December, 1902.

THIS list includes also (1) applications lodged prior to but gazetted during the quarter, (2) complete specifications following provisional specifications accepted and gazetted during the quarter. Where the number and date of the Gazette are omitted, the application has not yet been accepted.

* Denotes a provisional specification. † Denotes a prior date under section 106 of "The Patents, Designs, and Trade Marks Act, 1889."

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Adams, R. N., Dunedin, N.Z. Fastener for umbrella ..	15789	16 Dec. ..	2	8 Jan., 1903.*
Adamson, L., Waihao Forks, N.Z. Perambulator ..	15478	6 Oct. ..	87	30 Oct.
Adamson, L., Waihao Forks, N.Z. Collecting rain-water ..	15657	20 Nov. ..	99	27 Nov.
Adeock, G., Christchurch, N.Z. Milk-strainer ..	15506	13 Oct. ..	6	23 Jan., 1903.
Airey, G. H., Paris, France. Loading vessels ..	15609	6 Nov. ..	99	27 Nov.
Allman, G., Wellington, N.Z. Signalling state of tide ..	15611	6 Nov. ..	94	13 Nov.*
Allman, G., and others, Wellington, N.Z. Signalling state of tide ..	15776	17 Dec. ..	2	8 Jan., 1903.*
American Tobacco Company, New York, U.S.A. Cigarette-machine. (J. Wojciechowski)	15603	5 Nov. ..	99	27 Nov.
Amesbury, D. E., Feilding, N.Z. Castor ..	14691	1 April ..	2	8 Jan., 1903.
Amos, F. J., and others, Christchurch, N.Z. Sustaining air-pressure in tires	15567	28 Oct. ..	99	27 Nov.*
Anderson, J., Dunedin, N.Z. Printing-roller ..	15486	4 Oct. ..	87	30 Oct.
Anderson, J. T. N., Dunedin, N.Z. Sewage-treating tank ..	15679	22 Nov. ..	102	11 Dec.*
Anderson, J. T. N., Dunedin, N.Z. Water-filter ..	15756	11 Dec. ..	..	..
Anderson, T., and another, New Plymouth, N.Z. Horse-cover fastening	15766	15 Dec. ..	6	23 Jan., 1903.
Andrewartha, J., and another, Moonta, South Australia. (See H. V. McKay, No. 14746.)				
Andrewartha, J., and another, Moonta, South Australia. (See H. V. McKay, No. 14746.)				
Anstice, H., Levin, N.Z. Fastening for tailboard of cart ..	15754	12 Dec. ..	2	8 Jan., 1903.*
Arlidge, W. B., Wellington, N.Z. Scutching-machine ..	14923	26 May ..	83	16 Oct.
Armstrong, J., Auckland, N.Z. Securing cord to sash ..	15449	26 Sept. ..	99	27 Nov.*
Arthur, J., jun., Orepuki, N.Z. Shovel ..	15810	23 Dec. ..	6	23 Jan., 1903.*
Arthur, J. W., Te Tua, N.Z. Poisoning grain ..	15549	16 Oct. ..	87	30 Oct.*
Arthur, R., Auckland, N.Z. Discharging products of combustion ..	14669	22 March ..	2	8 Jan., 1903.
Ashworth, H., Wellington, N.Z. Street-watering ..	15772	17 Dec. ..	2	8 Jan., 1903.*
Austin, H., and others, Birmingham, Eng. Machine for cutting wool	15644	19 Nov. ..	99	27 Nov.
Ayson, R. W., Kaihiku, N.Z. Drill for seed-sowing ..	15723	2 Dec. ..	2	8 Jan., 1903.*
Babcock and Wilcox, Limited, London, Eng. (See J. Chambers and Son, Limited, No. 14338.)				
Baertl, F., Zurich, Switzerland. Pressure-regulator for gas-burner..	15645	19 Nov. ..	99	27 Nov.
Bain, W., Christchurch, N.Z. Castor ..	15764	15 Dec. ..	2	8 Jan., 1903.*
Baird, J., Auckland, N.Z. Spark-arrester ..	15638	15 Nov. ..	99	27 Nov.*
Baker, J., and another, Auckland, N.Z. Acetylene-generator ..	15616	7 Nov. ..	99	27 Nov.*
Baker, T., Melbourne, Vic. Packing chemicals ..	15699	26 Nov. ..	102	11 Dec.*
Baldwin, E. S., and another, Wellington, N.Z. Extracting zinc from ores. (G. D. Delprat)	15681	26 Nov. ..	102	11 Dec.*
Baldwin, E. S., and another, Wellington, N.Z. Extracting sulphide from their ores. (G. D. Delprat)	15687	27 Nov. ..	102	11 Dec.
Ballin, H. J., Christchurch, N.Z. Manufacture of aerated waters. (E. P. Coulter)	15555	25 Oct. ..	94	13 Nov.*
Bamber, M. K., and another, Colombo, Ceylon. Obtaining extract of tea	15664	18 Nov. ..	99	27 Nov.
Banks, H., Wellington, N.Z. Table-cricket ..	15477	6 Oct. ..	87	30 Oct.
Barrett, R., Adelaide, South Australia. Venetian-blind ..	15523	16 Oct. ..	87	30 Oct.*
Bartle, W. M., Napier, N.Z. Water-closet ..	14625	14 March ..	2	8 Jan., 1903.
Barton, E. L., Hawera, N.Z. Electric conductor ..	15804	23 Dec. ..	2	8 Jan., 1903.*
Barton, W., Featherston, N.Z. Delivering milk into cans ..	15460	1 Oct. ..	83	16 Oct.*
Baseman, E., and another. (See Bickford and Huffman Company, No. 15663.)				
Basley, G. W., Auckland, N.Z. Electric belt. (M. A. McLaughlin)	15001	11 June ..	83	16 Oct.
Basley, G. W., Auckland, N.Z. Oash-carrier railway. (M. S. Giles)	15547	20 Oct. ..	87	30 Oct.
Basley, G. W., Auckland, N.Z. Motion-transmitting mechanism. (H. Smith)	15724	1 Dec. ..	2	8 Jan., 1903.
Bates, J., and another, North Melbourne, Vic. Washing copper ..	15692	27 Nov. ..	102	11 Dec.
Baux, H., Auckland, N.Z. Heating water ..	15524	14 Oct. ..	87	30 Oct.*
Beamish, W., Cromwell, N.Z. Sling and shackle ..	15507	11 Oct. ..	87	30 Oct.*
Beamish, W., Cromwell, N.Z. Sack-mouth fastener ..	15508	11 Oct. ..	87	30 Oct.*
Beamish, W., Cromwell, N.Z. Boot-fastener ..	15533	16 Oct. ..	87	30 Oct.*
Beamish, W., Cromwell, N.Z. Dredge-bucket links ..	15544	21 Oct. ..	87	30 Oct.*
Beamish, W., Cromwell, N.Z. Carrying a running line over a standing line	15630	11 Nov. ..	99	27 Nov.*
Beamish, W., Cromwell, N.Z. Oil-feeding can ..	15631	11 Nov. ..	99	27 Nov.*
Beamish, W., Cromwell, N.Z. Trouser-clip ..	15668	19 Nov. ..	99	27 Nov.*
Beamish, W., Cromwell, N.Z. Sack-mouth fastener ..	15669	19 Nov. ..	99	27 Nov.*
Beamish, W., Cromwell, N.Z. Button-hole ..	15797	19 Dec. ..	2	8 Jan., 1903.*
Bedford, J., and another, Puriri, N.Z. Windmill ..	14541	20 Feb. ..	102	11 Dec.
Belk, J. A., Feilding, N.Z. Sustaining window-sash, &c. ..	13968	4 Sept., 1901..	102	11 Dec.
Bell, J. R., and another, Groper's Bush, N.Z. Lifting-jack ..	15760	15 Dec. ..	2	8 Jan., 1903.
Bellett, J., and another, Melbourne, Vic. Lock-nut plate ..	15623	13 Nov. ..	99	27 Nov.*
Bergersen, C. A., Palmerston North, N.Z. Wire-strainer ..	15406	16 Sept. ..	99	27 Nov.
Bickford and Huffman Company, New York, U.S.A. Furrow-opener. (J. S. Heath and E. Baseman)	15683	26 Nov. ..	102	11 Dec.
Bigelow, G. H., Auckland, N.Z. Nut-lock ..	14845	1 May ..	83	16 Oct.
Bingham, E. G. H., and another, Kent, Eng. Magazine gun ..	14405	8 Jan. ..	87	30 Oct.
Bjornstad, M., and another, Auckland, N.Z. Medicated sweetmeat ..	15808	20 Dec. ..	2	8 Jan., 1903.
Black, R. S., Dunedin, N.Z. Animal-trap ..	15487	30 Oct. ..	87	30 Oct.*
Blanchard, A., London, Eng. (See E. Waters, jun., No. 15718.)				

ALPHABETICAL LIST OF APPLICANTS FOR LETTERS PATENT—*continued.*

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Bland, H., Sydney, N.S.W. Elastic-fluid compression ..	15581	31 Oct. ..	94	13 Nov.
Boardman, G., and another, Sydney, N.S.W. Flushing-cistern ..	15694	27 Nov. ..	82	8 Jan., 1903.
Bomford, J., and others, Wellington, N.Z. Broom-handle ..	15594	4 Nov. ..	94	13 Nov.
Boreham, J. A., Dunedin, N.Z. Sheep-shears (J. Boreham) ..	15553	23 Oct. ..	94	13 Nov.*
Boreham, J., Kurow, N.Z. (See J. A. Boreham, No. 15553.)				
Borlase, W., Dunedin, N.Z. Tongs ..	15488	3 Oct. ..	87	30 Oct.*
Borlase, W., Dunedin, N.Z. Animal-trap ..	15735	6 Dec. ..	2	8 Jan., 1903.*
Börs, O., Trundie, N.S.W. Sheep-shears ..	15420	19 Sept. ..	94	13 Nov.
Botting, W. J., Shannon, N.Z. Destroying blight ..	15538	22 Oct. ..	87	30 Oct.*
Bowman, O., and others, Perth, W.A. Cleaning tram-rails ..	14863	9 May ..	78	2 Oct.
Bowmar, E., Gore, N.Z. Canister for sowing seeds ..	15604	5 Nov. ..	94	13 Nov.*
Bowring, J. C., Sydney, N.S.W. Spark-arrester ..	15715	4 Dec. ..	2	8 Jan., 1903.*
Boyd, J. A., Wellington, N.Z. Knife-cleaner ..	15729	8 Dec. ..	2	8 Jan., 1903.*
Boyens, W. H., Kaikoura, N.Z. Siphon ..	14396	3 Jan. ..	94	13 Nov.
Boxall, R., and another, Brisbane, Queensland. Butter-printing machine	15543	23 Oct. ..	99	27 Nov.*
Bradshaw, R. F., and another, Boulder, W.A. High-pressure tap for filter-press	15769	17 Dec. ..	2	8 Jan., 1903.
Braithwaite, J. H., Barnsley, Eng. Variable-speed gearing for velocipedes, &c.	15770	17 Dec. ..	2	8 Jan., 1903.
Bremer, H., Neheim-on-the-Ruhr, Germany. (See J. P. Campbell, No. 15786.)				
Bridges, C. L., Wanganui, N.Z. Incubator ..	15476	6 Oct. ..	87	30 Oct.*
Bristow, C., Addington, N.Z. Stretching trousers ..	14805	29 April ..	87	30 Oct.
Brown, G. F., Hurstville, N.S.W. Tire-covering ..	15615	7 Nov. ..	99	27 Nov.*
Brown, J. H. S., Auckland, N.Z. Combined cigarette and match box	15663	18 Nov. ..	99	27 Nov.*
Brown, J. H. S., Auckland, N.Z. Window-lock ..	15696	25 Nov. ..	102	11 Dec.
Brown, T. H., Wellington, N.Z. Artificial fuel ..	14400	6 Jan. ..	83	16 Oct.
Brownley, A. H., Onehunga, N.Z. Advertising parcel-grip ..	15570	30 Oct. ..	2	8 Jan., 1903.
Brummer, D., Vienna, Austria. Portable building ..	15651	23 Nov., 1901†	..	..
Brunt, J. R., and another, Christchurch, N.Z. Pneumatic tire ..	14408	8 Jan. ..	83	16 Oct.
Burdett-Stuart, F. A., Chertsey, N.Z. Bird-trap ..	15595	4 Nov. ..	99	27 Nov.*
Burge, J., Warragul, Vic. Rug for cows, &c. ..	15624	13 Nov. ..	99	27 Nov.
Burgon, H., Sheffield, Eng. Sheep-shears ..	15682	15 Feb. ..	102	11 Dec.
Burman, E. S., Caulfield, Vic. Canning butter ..	15456	1 Oct. ..	83	16 Oct.
Burt, A., Dunedin, N.Z. Flushing-tank ..	15562	25 Oct. ..	94	13 Nov.*
Campbell, A., Sutton, N.Z. Animal-trap ..	15791	16 Dec. ..	2	8 Jan., 1903.*
Campbell, J. D., and another, Brisbane, Queensland. Dredge-bucket	15437	24 Sept. ..	102	11 Dec.
Campbell, J. P., Wellington, N.Z. Controller for electric motor. (H. R. Stuart.)	15785	18 Dec. ..	2	8 Jan., 1903.
Campbell, J. P., Wellington, N.Z. Electric arc lamp. (H. Bremer)	15786	18 Dec. ..	2	8 Jan., 1903.
Campbell, J. P., Wellington, N.Z. Dynamo. (H. Chitty)	15822	30 Dec. ..	6	23 Jan., 1903.
Carruthers, J. A., St. James, Vic. Electric clock ..	15646	19 Nov. ..	99	27 Nov.
Carruthers, J. A., St. James, Vic. Electric clock ..	15647	19 Nov. ..	99	27 Nov.
Caselberg, L., Wellington, N.Z. Stopper for bottle ..	14476	27 Jan. ..	94	13 Nov.
Chamberlain, W. E., Auckland, N.Z. Seed-sower ..	15806	23 Dec. ..	..	..
Chamberlain, W. E., and another, Feilding, N.Z. Cooling cream, &c.	15825	31 Dec. ..	6	23 Jan., 1903.*
Chambers, J., and Son, Limited, Auckland, N.Z. Boiler-furnace. (Babcock and Wilcox)	14338	16 Dec., 1901 ..	102	11 Dec.
Chanron, J., Hornsby, N.S.W. Lock for mail-bag. (J. J. Russell)	15678	25 Nov. ..	102	11 Dec.
Chapman, W., and another, Teddington, Eng. (See J. T. Hunter, No. 15579.)				
Cheney, S., Freeling, South Australia. Railway brake ..	15566	29 Oct. ..	94	13 Nov.*
Cherrie, M. J., Huntly, N.Z. Opening oysters ..	15705	2 Dec. ..	102	11 Dec.*
Chitty, H., Slater, Eng. (See J. P. Campbell, No. 15822.)				
Church, E. J., Ashburton, N.Z. Wire-coiler ..	15463	1 Oct. ..	83	16 Oct.*
Clancy White-lead Company Proprietary, Limited, Footscray, Vic. White-lead. (J. C. Clancy)	15542	23 Oct. ..	87	30 Oct.
Clancy, J. C., Footscray, Vic. (See Clancy White-lead Company Proprietary, Limited, No. 15542.)				
Clapham, G. H., East St. Kilda, Vic. Gas-manufacture	15745	11 Dec. ..	2	8 Jan., 1903.*
Clark J., Okato, N.Z. Manufacture of bricks ..	15459	1 Oct. ..	83	16 Oct.*
Cleaver, A. E., Rongotea, N.Z. Fire-escape ..	15532	18 Oct. ..	87	30 Oct.*
Clennell, F., and others, Wellington, N.Z. Signalling state of tide	15776	17 Dec. ..	2	8 Jan., 1903.*
Cochrane, D. L., Otahuhu, Auckland, N.Z. Dray scoop ..	15676	19 Nov. ..	99	27 Nov.*
Cochrane, D. L., Otahuhu, Auckland, N.Z. Dray scoop ..	15712	3 Dec. ..	102	11 Dec.*
Coe, H., Greymouth, N.Z. Plough ..	15642	17 Nov. ..	99	27 Nov.*
Coleman, W. E., New Dorp, U.S.A. Electric fan ..	15602	5 Nov. ..	94	13 Nov.
Colonial Ammunition Company, Limited, Auckland, N.Z. Wad. (A. C. Whitney)	15435	24 Sept. ..	102	11 Dec.
Constable, C. W., Queenstown, N.Z. Spark-arrester ..	15485	1 Oct. ..	87	30 Oct.*
Constable, C. W., Queenstown, N.Z. Rabbit-trap ..	15675	19 Nov. ..	102	11 Dec.*
Constable, J., Napier, N.Z. Siphon for water-closet ..	15670	22 Nov. ..	102	11 Dec.
Coomber, J. D., Dunedin, N.Z. Raising gold ..	15529	14 Oct. ..	87	30 Oct.*
Coogan, L., Rongotea, N.Z. Flax-dray ..	15742	10 Dec. ..	2	8 Jan., 1903.*
Cooley Development Company, Boston, U.S.A. Rotary fluid-engine. (J. F. Cooley)	15784	18 Dec. ..	2	8 Jan., 1903.
Cooley, J. F., Boston, U.S.A. (See Cooley Development Company, No. 15784.)				
Cooper, F., Invercargill, N.Z. Cultivator ..	14677	22 March ..	2	8 Jan., 1903.
Cooper, F., Christchurch, N.Z. Potato-planter ..	15737	24 Nov. ..	2	8 Jan., 1903.*
Cooper, F., Christchurch, N.Z. Clod-crusher, &c. ..	15738	24 Nov. ..	2	8 Jan., 1903.*
Cooper, K., Christchurch, N.Z. Preparation for the skin ..	15520	15 Oct. ..	87	30 Oct.*
Cormack, J., Wyndham, N.Z. Coultter-centre ..	15680	22 Nov. ..	102	11 Dec.
Cormack, W., and another, Midlothian, Scotland. Gelatine	15767	17 Dec. ..	..	..
Corrington, M., New York, U.S.A. Safety-valve ..	15820	30 Dec. ..	6	23 Jan., 1903.

ALPHABETICAL LIST OF APPLICANTS FOR LETTERS PATENT—continued.

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Cossar, T., Govan, Scotland. Printing-machine	15575	30 Oct. ..	..	..
Coulsell, A. C., and others, North Melbourne, Vic. Water-column boiler	15677	25 Nov. ..	102	11 Dec.*
Coulsell, F. F., and others, North Melbourne, Vic. Water-column boiler	15677	25 Nov. ..	102	11 Dec.*
Coulsell, H. W., and others, North Melbourne, Vic. Water-column boiler	15677	25 Nov. ..	102	11 Dec.*
Coulsell, L. B., and others, North Melbourne, Vic. Water-column boiler	15677	25 Nov. ..	102	11 Dec.
Coulter, E. P., Melbourne, Vic. (See H. J. Ballin, No. 15555.)				
Cowan, J., Edinburgh, Scotland. Water-tube boiler ..	15569	30 Oct. ..	94	13 Nov.
Cowan, S. J., and another, Tingha, N.S.W. Starting horse-race ..	15716	4 Dec. ..	102	11 Dec.
Crawford, B., and another, Auckland, N.Z. Ventilator ..	15481	3 Oct. ..	87	30 Oct.
Croll, G., Christchurch, N.Z. Life-saving raft ..	15672	22 Nov. ..	102	11 Dec.*
Cummins, T. D., and another, Wanganui, N.Z. Dropper for wire fences	15755	13 Dec. ..	2	8 Jan., 1903.
Dalton, W. J., Auckland, N.Z. Telescopic tap	15592	30 Oct. ..	94	13 Nov.
Darling, P. J., and others, Christchurch, N.Z. Sustaining air-pressure in tires	15567	28 Oct. ..	99	27 Nov.*
Davey, W. S., Featherston, N.Z. Milk cooler and filler ..	15539	22 Oct. ..	87	30 Oct.*
Davidson, W. L., Cheviot, N.Z. Stopper bottle	15554	27 Oct. ..	94	13 Nov.*
Davies, J. B., Malvern, Vic. (See C. F. Dann, No. 15774.)				
Davy, K., Wanganui, N.Z. Umbrella	15545	22 Oct. ..	87	30 Oct.*
Dawson, W., Wanganui, N.Z. Table game	15458	1 Oct. ..	88	16 Oct.*
De Lajard, C. P., Avignon, France. Power from waves of sea ..	15654	19 Nov. ..	99	27 Nov.
Delprat, G. D., Broken Hill, N.S.W. (See E. S. Baldwin and H. H. Rayward, Nos. 15687, 15681.)				
Donnelly, J. F., Feilding, N.Z. Hair-preparation	15531	18 Oct. ..	87	30 Oct.*
Dixon, H., Maitara, N.Z. Rat-trap	15812	23 Dec. ..	6	23 Jan., 1903.
Dixon, H., Maitara, N.Z. Rat-trap	15813	23 Dec. ..	6	23 Jan., 1903.
Dolter Electric Traction, Limited, London, Eng. Electric-traction system. (H. Dolter)	15768	15 Dec. ..	2	8 Jan., 1903.
Dolter, H., Paris, France. (See Dolter Electric Traction, Limited, No. 15768.)				
Douglas, A., Auckland, N.Z. Buckle attachment to spring hook ..	14454	21 Jan. ..	83	16 Oct.
Downing, H. W., Christchurch, N.Z. Saddle	15556	27 Oct. ..	94	13 Nov.*
Droutledge, H., Auckland, N.Z. Totalisator	15814	22 Dec. ..	6	23 Jan., 1903.*
Duke, R. W., London, Eng. Toy	15599	5 Nov. ..	94	13 Nov.*
Dunbar, A., South Melbourne, Vic. Feed-water heaters. (J. Macartney)	15157	24 July ..	102	11 Dec.
Duncan, G. S., Melbourne, Vic. Can-body-making machines. (R. D. Hume)	15491	9 Oct. ..	87	30 Oct.
Dunlop, G. H., Melbourne, Vic. Linings for tunnels	15819	30 Dec. ..	6	23 Jan., 1903.
Dunn, C. F., Kew, Vic. Nail. (J. B. Davies)	15774	17 Dec. ..	2	8 Jan., 1903.
Durey, J., Teddington, N.Z. Handles for knives, &c. ..	15695	25 Nov. ..	102	11 Dec.*
Economic Hoisting and Ballast Company, San Francisco, U.S.A. Unloading vessels. (A. Mullan)	15740	11 Dec. ..	2	8 Jan., 1903.
Ellis, J., Warragul, Vic. Securing horse-rugs	15811	24 Dec. ..	2	8 Jan., 1903.*
Elswood, W., New York, U.S.A. Electric fans	15602	5 Nov. ..	94	13 Nov.
Evans, W. J., and another, Brisbane, Queensland. Dredge-buckets	15437	24 Sept. ..	102	11 Dec.
Ewing, J., jun., Richmond, Canada. Life-preserver	15809	24 Dec. ..	2	8 Jan., 1903.
Ewing, R., and another, Wellington, N.Z. Renewing window-cords	15499	10 Oct. ..	..	..
Fagan, L., Mangapai, N.Z. Piano bracket lamp	15472	4 Oct. ..	83	16 Oct.*
Fahey, W. H., and another, Dunedin, N.Z. Hair and hat pin and fastening	14828	2 May. ..	2	8 Jan., 1903.
Fahey, W. H., and another, Dunedin, N.Z. Hat-fastener ..	15628	11 Nov. ..	99	27 Nov.*
Fairweather, J., and others, Blenheim, N.Z. Selvage-stripping flax-drum	15795	18 Dec. ..	2	8 Jan., 1903.*
Fairweather, W., and others, Blenheim, N.Z. Selvage-stripping flax-drum	15795	18 Dec. ..	2	8 Jan., 1903.*
Fairweather, W., jun., and others, Blenheim, N.Z. Selvage-stripping flax-drum	15795	18 Dec. ..	2	8 Jan., 1903.*
Firth, T., Wellington, N.Z. Vehicle-wheel lock	15758	15 Dec. ..	2	8 Jan., 1903.*
Flameless Gaslight Company, Limited, London, Eng. Gas-burner. (W. Hooker)	15578	30 Oct. ..	94	13 Nov.
Flameless Gaslight Company, Limited, London, Eng. Incandescence gas lighting. (W. Hooker)	15124	17 July ..	87	30 Oct.
Foot, F. J., and another, Greymouth, N.Z. Gold-saving screen ..	15563	25 Oct. ..	94	13 Nov.
Forbes, W. C., Elsternwick, Vic. Course-recorder for ships ..	15541	22 Oct. ..	87	30 Oct.
Free, J., Brighton, N.Z. Artesian-water pipes	15701	28 Nov. ..	2	8 Jan., 1903.*
Fyfe, W. W., Middlesex, Eng. (See Metallic Compounds Separation Syndicate, Limited, No. 15572.)				
Galbraith, D. R. S., Auckland, N.Z. Utilising deposits of kauri-gum	14492	31 Jan. ..	2	8 Jan., 1903.
Galbraith, D. R. S., and another, Auckland, N.Z. Reduction of iron-sand	15661	18 Nov. ..	99	27 Nov.*
Galbraith, D. R. S., and another, Auckland, N.Z. Reduction of iron-sand	15662	18 Nov. ..	99	27 Nov.*
Gamman, W. A., Dannevirke, N.Z. Reversing rotation of shafting	15684	26 Nov. ..	102	11 Dec.
Gardiner, J. H., Christchurch, N.Z. Wool-washing	15803	22 Dec. ..	2	8 Jan., 1903.*
Gardiner, W., Southland, N.Z. Drill-rollers	15605	3 Nov. ..	94	13 Nov.*
Garguevich, M., North Carlton, Vic. Recovery of gold ..	15468	3 Oct. ..	83	16 Oct.*
Gascoyne, D., Auckland, N.Z. Lamp-wick	15743	10 Dec. ..	2	8 Jan., 1903.*
Gates, S., Sydney, N.S.W. (See Lamson Store-service Company, Limited, Nos. 15573 and 15574.)				

ALPHABETICAL LIST OF APPLICANTS FOR LETTERS PATENT—*continued.*

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Gaulin, A., Paris, France. Mixing milk	15750	11 Dec. ..	2	8 Jan., 1903.
Gaze, W. H., Shepparton, Vic. Gas for lighting	15565	29 Oct. ..	94	13 Nov.*
Gaze, W. H., Shepparton, Vic. Illuminating-gas	15706	2 Dec. ..	102	11 Dec.
Gell, J., Nelson, N.Z. Perforating tape for telegraph instrument ..	14097	5 Oct., 1901 ..	83	16 Oct.
Gibbons, R. P., Kopu, N.Z. Auxiliary propeller	15640	13 Nov. ..	99	27 Nov.*
Gibbons, R. P., Kopu, N.Z. Bottom and sides for kettles	15632	11 Nov. ..	99	27 Nov.*
Gibbons, R. P., Kopu, N.Z. Steam-boiler	15497	7 Oct. ..	87	30 Oct.*
Gibbons, R. P., Kopu, N.Z. Steam-engine	15537	18 Oct. ..	87	30 Oct.*
Gibbons, R. P., Kopu, N.Z. Vertical steam-boiler	15614	5 Nov. ..	99	27 Nov.*
Gibbs, G., New York, U.S.A. (See W. E. Hughes, No. 15781.)				
Giles, M. S., Sydney, N.S.W. (See G. W. Basley, No. 15547.)				
Gillies, A., and another, Terang, Vic. Milking machine	15597	5 Nov. ..	94	13 Nov.*
Gillies, A., and another, Terang, Vic. Milking-machine	15598	5 Nov. ..	94	13 Nov.*
Gillies, A., Terang, Vic. Milking-apparatus	15652	19 Nov. ..	99	27 Nov.
Godfrey, A., London, Eng. Wrapping and packing cigarettes ..	15540	22 Oct. ..	6	28 Jan., 1903.
Goltstein, E., Cologne, Germany. (See J. A. Landsberger, No. 15789.)				
Good, J. T., Glenthompson, Vic. Attachment to rabbit traps ..	14747	14 April ..	78	2 Oct.
Goucher, T., Ulverston, Tasmania. Target	14565	28 Feb. ..	102	11 Dec.
Grainger, A. M., Wanganui, N.Z. Rafting logs	15465	2 Oct. ..	83	16 Oct.*
Grey, E. H., Morrisville, N.Z. Road-plough	14738	12 April ..	94	13 Nov.
Gundrie, W. W., South Norsewood, N.Z. Water-motor	15504	10 Oct. ..	87	30 Oct.*
Ham, H., Kumeroa, Hawke's Bay, N.Z. Nightsoil receptacle ..	15648	19 Nov. ..	99	27 Nov.*
Harkin, H. G., Inangahua, N.Z. Gold-saving	14564	27 Feb. ..	83	16 Oct.
Hanna, D., Christchurch, N.Z. Pumping smoke	15643	17 Nov. ..	99	27 Nov.*
Hansen, O., Gisborne, N.Z. Closing gates	15483	4 Oct. ..	87	30 Oct.*
Harding, W. E., and another, Boulder, W.A. High-pressure tap for filter-press	15769	17 Dec. ..	2	8 Jan., 1903.
Hare, W. W., London, Eng. (See Inverted Incandescent Gas-lamp Syndicate, Limited, No. 14612.)				
Harkin, P. A., Auckland, N.Z. Moulding confectionery	15665	21 Nov. ..	99	27 Nov.
Harris, D., Ballance, N.Z. Aerating and cooling milk	15619	12 Nov. ..	99	27 Nov.
Harris, D., Ballance, N.Z. Securing wires of fence	15620	12 Nov. ..	99	27 Nov.
Harris, J., Wellington, N.Z. Wire fencing	15557	27 Oct. ..	94	13 Nov.*
Harrison, J. R., Ballarat, Vic. Ore concentrator and amalgamator	15462	1 Oct. ..	83	16 Oct.*
Harrison, R., Wellington, N.Z. Hæmatite concrete, &c. ..	15673	24 Nov. ..	102	11 Dec.*
Harrison, W., Ashburton, N.Z. Lawn-weeding tool	15714	3 Dec. ..	102	11 Dec.*
Hasselbach, E., Surrey Hills, Vic. Game	15736	6 Dec. ..	2	8 Jan., 1903.*
Hatton, F., Timaru, N.Z. Wheel-stopper for carriage, &c. ..	15720	4 Dec. ..	102	11 Dec.*
Hatton, T. C., Ontario, Canada. Carriage-spring	15561	25 Oct. ..	94	13 Nov.
Hatton, W., Feilding, N.Z. Holding target for shooting	15725	8 Dec. ..	2	8 Jan., 1903.*
Haughton, R. S., Wellington, N.Z. Stop-cock	15730	8 Dec. ..	2	8 Jan., 1903.*
Hayes, F. W., Albury, N.S.W. Punkah for chairs	15568	30 Oct. ..	94	13 Nov.
Hayward, C. E., Auckland, N.Z. Wire-tightner	15590	3 Nov. ..	94	13 Nov.*
Healy, D. W., Nelson, N.Z. Military kit	15482	7 Oct. ..	87	30 Oct.
Heath, J. S., and another. (See Bickford and Huffman Company, No. 15683.)				
Hege, C. A., Salem, U.S.A. Cutting railroad cross-ties	15691	27 Nov. ..	102	11 Dec.
Henderson, F., Auckland, N.Z. Electric ignition for engine ..	15525	15 Oct. ..	87	30 Oct.*
Henderson, H. W. G., Dannevirke, N.Z. Carburetted water-gas ..	14654	20 March ..	83	16 Oct.
Henderson, J. W., Wellington, N.Z. Earth-closet	15686	27 Nov. ..	102	11 Dec.*
Herd, F. G., and another, Wellington, N.Z. Support for settee, &c.	14512	11 Feb. ..	99	27 Nov.
Herd, T., and another, Wellington, N.Z. Indicating length of roll of textile material	15471	30 Oct. ..	83	16 Oct.*
Higgie, T. M., Wanganui, N.Z. Scrubber	15454	25 Oct. ..	94	13 Nov.
Hill, J. J., Denver, U.S.A. Amalgamating-apparatus	15753	10 Dec. ..	2	8 Jan., 1903.
Hiss, N., New York, U.S.A. Traction machinery	15782	18 Dec. ..	2	8 Jan., 1903.
Hodgson, H., Opunake, N.Z. Tinning metal goods	14383	30 Dec., 1901 ..	83	16 Oct.
Hogg, B., and another, Whangamata, N.Z. A machine for stirring auriferous material	14515	12 Feb. ..	99	27 Nov.
Hood, W. G., and others, Petone, N.Z. Marine governor	15633	15 Nov. ..	99	27 Nov.*
Hooker, W., London, Eng. (See Flameless Gaslight Company, Limited, Nos. 15124 and 15578.)				
Hopkins, E. H., Kensington, Eng. Obtaining zinc	15728	5 June† ..	2	8 Jan., 1903.
Hosking, W. V., Midhurst, N.Z. Cow-bailing apparatus	15700	29 Nov. ..	6	23 Jan., 1903.*
Hoskins, G. J., Sydney, N.S.W. Machine for closing joints of iron pipes	15751	9 Dec. ..	2	8 Jan., 1903.
Hughes, W. E., Wellington, N.Z. Milking-machine. (D. R. Ross)	15564	29 Oct. ..	94	13 Nov.*
Hughes, W. E., Wellington, N.Z. Treating ore. (E. H. Miller and C. Quennell)	15780	18 Dec. ..	2	8 Jan., 1903.*
Hughes, W. E., Wellington, N.Z. Electric railway. (G. Gibbs) ..	15781	18 Dec. ..	2	8 Jan., 1903.
Hume, R. D., Oregon, U.S.A. (See G. S. Duncan, No. 15491.)				
Humphrey, A. A., London, Eng. Compressing air	15521	16 Oct. ..	87	30 Oct.*
Hunter, J. T., Wellington, N.Z. Electric-tram brake. (G. A. Trube and W. Chapman)	15579	30 Oct. ..	102	11 Dec.
Hunter, W. Y., Transvaal, South Africa. Tent, &c.	15707	2 Dec. ..	94	13 Nov.
Hupton, H. E., and another, Brighton, Eng. Stand for exhibition purposes	15613	4 Nov. ..	99	27 Nov.
Hurley, G. A., and another, Wellington, N.Z. Gold-saving	14401	6 Jan. ..	87	30 Oct.
Hyde, W. R., Ashburton, N.Z. Generating acetylene-gas	15606	4 Nov. ..	94	13 Nov.
Hylard, J., and another, Melbourne, Vic. Magazine gun	14405	8 Jan. ..	87	30 Oct.
Inglis, G., and another, Auckland, N.Z. Glazing corrugated iron ..	15637	15 Nov. ..	99	27 Nov.
International Fuel Company, Chicago, U.S.A. Artificial-fuel briquettes. (W. A. Koneman)	15576	30 Oct. ..	94	13 Nov.
Inverted Incandescent Gas-lamp Syndicate, London, Eng. Gas-burner. (W. W. Hare)	14612	13 March ..	87	30 Oct.

ALPHABETICAL LIST OF APPLICANTS FOR LETTERS PATENT—continued.

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Iwan, J. H., and another, Streator, U.S.A. Earth augur ..	15790	16 Dec.	2	8 Jan., 1903.
Iwan, W. L., and another, Streator, U.S.A. Earth-augur ..	15790	16 Dec.	2	8 Jan., 1903.
Jacob, L., and another, Rudolstadt, Germany. Manufacture of fibre from New Zealand flax ..	15711	29 Nov.	2	8 Jan., 1903.
Jacobsen, T. B., Auckland, N.Z. Handles of door-locks ..	14652	20 March	102	11 Dec.
Jameson, J. M. (See E. R. Jennings and others, No. 15653.) ..				
Jenkinson, W., New Plymouth, N.Z. Seats for vehicle ..	15509	9 Oct.	87	30 Oct.*
Jennings, E. R., and others, London, Eng. Converting refuse into fuel. (J. M. Jameson) ..	15653	19 Nov.	99	27 Nov.*
Jepsen, J. F., and others, Wellington, N.Z. Broom-handle ..	15594	4 Nov.	94	13 Nov.
Jepsen, J. S., and others, Wellington, N.Z. Broom-handle ..	15594	4 Nov.	94	13 Nov.
Jepsen, M., and others, Wellington, N.Z. Broom-handle ..	15594	4 Nov.	94	13 Nov.
Jepsen, N., and others, Wellington, N.Z. Broom-handle ..	15594	4 Nov.	94	13 Nov.
Jewell, J. R., and another, East Brunswick, Vic. Wheel-lock ..	14645	20 March	2	8 Jan., 1903.
Jewell, W. H., and another, Northcote, Vic. Wheel-lock ..	14645	20 March	2	8 Jan., 1903.
Jewiss, A., and another, Auckland, N.Z. Glazing corrugated iron ..	15637	15 Nov.	99	27 Nov.
Johnson, S. R., Petone, N.Z. Poultry-brooder ..	15492	9 Oct.	87	30 Oct.*
Jones, D. R., and another, Eltham, N.Z. Preserving goods ..	14586	6 March	102	11 Dec.
Jones, F., Wellington, N.Z. Nail for boots, &c. ..	15618	12 Nov.	99	27 Nov.*
Jones, F. A., and others, Perth, W.A. Appliance for cleaning tram-rails ..	14863	9 May	78	2 Oct.
Kay, W. S., Port Chalmers, N.Z. Oil-fuel boiler ..	15489	3 Oct.	87	30 Oct.*
Keane, W. R., and another, Whangamata, N.Z. A machine for stirring auriferous material ..	14515	12 Feb.	99	27 Nov.
Kee, E. J., Christchurch, N.Z. Utilising waste heat from lamps ..	15517	13 Oct.	87	30 Oct.*
Kelly, E. J., and another, Terang, Vic. Milking-machine ..	15597	5 Nov.	94	13 Nov.*
Kelly, E. J., and another, Terang, Vic. Milking-machine ..	15598	5 Nov.	94	13 Nov.*
Kelly, J., Palmerston South, N.Z. Grain-reel for binding-machines ..	15667	19 Nov.	99	27 Nov.*
Kibblewhite, W., Wellington, N.Z. Enclosing frying-pans ..	15607	6 Nov.	94	13 Nov.*
Kincaid, J. W., Cincinnati, U.S.A. Mechanical stoker ..	15783	18 Dec.	2	8 Jan., 1903.
Knox, W. J., Allegheny, U.S.A. (See G. Westinghouse, No. 15479.) ..				
Knutzen, H. P., Auckland, N.Z. Racing-hurdle ..	15805	20 Dec.	2	8 Jan., 1903.*
Koneman, W. A., Chicago, U.S.A. Pulverising-apparatus ..	15577	30 Oct.	94	13 Nov.
Koneman, W. A., Chicago, U.S.A. (See International Fuel Company, No. 15576.) ..				
Kortlang, A., and another, Sydney, N.S.W. Extension table ..	15775	17 Dec.	2	8 Jan., 1903.*
Kortlang, L., sen., and another, Sydney, N.S.W. Extension table ..	15775	17 Dec.	2	8 Jan., 1903.*
Lajard, De. (See under De.) ..				
Lamson Store-service Company, Limited, Sydney, N.S.W., and London, Eng. Pneumatic cash and parcel carrier system. (S. Gates) ..	15573	30 Oct.	94	13 Nov.
Lamson Store-service Company, Limited, Sydney, N.S.W., and London, Eng. Wire-track cash and parcel carrier system. (S. Gates) ..	15574	30 Oct.	94	13 Nov.
Landsberger, J. A., Alameda, U.S.A. Jar-closures. (E. Goltstein) ..	15739	10 Dec.	2	8 Jan., 1903.
Lane, M. W., Auckland, N.Z. Propeller-hood ..	15560	28 Oct.	94	13 Nov.
Langford, E., Christchurch, N.Z. Ladder ..	15596	3 Nov.	94	13 Nov.*
Larritt, P. A., and another, Eltham, N.Z. Preserving perishable products ..	14586	6 March	102	11 Dec.
Leadbeater, H., jun., Auckland, N.Z. Hair-clipping machine ..	15757	11 Dec.	2	8 Jan., 1903.*
Lightband, C. D., Christchurch, N.Z. Cover for pneumatic tires ..	15495	7 Oct.	87	30 Oct.*
Lightband, C. D., Christchurch, N.Z. Resilient leather heel ..	15621	7 Nov.	99	27 Nov.*
Lightband, C. D., Christchurch, N.Z. Binocular-suspender ..	15622	7 Nov.	99	27 Nov.*
Lightband, C. D., and another, Christchurch, N.Z. Leather and rubber composite ..	15721	3 Dec.	102	11 Dec.*
Lockhead, R., Dunedin, N.Z. Reflector for gas lamps ..	15709	29 Nov.	102	11 Dec.*
Longland, T. F., and another, Auckland, N.Z. Windmill ..	14541	20 Feb.	102	11 Dec.
Lorie, A. F. W., Dunedin, N.Z. Sash-fastener ..	14554	20 Feb.	102	11 Dec.
Lorigan, W., Wellington, N.Z. Certificates for trading purposes ..	15671	22 Nov.	102	11 Dec.*
Lowe, T. S. C., Los Angeles, U.S.A. Manufacture of coke ..	15494	9 Oct.	87	30 Oct.
Lowson, J. G. F., and another, Midlothian, Scotland. Gelatine ..	15767	17 Dec.	..	..
Lund, J. G. F., Christiania, Norway. Wall ..	15779	18 Dec.	2	8 Jan., 1903.
Lyell, A., Palmerston North, N.Z. Filter and butter-cooler ..	14960	6 June	94	13 Nov.
Macartney, J., Sydney, N.S.W. (See A. Dunbar, No. 15157.) ..				
Mackie, J., Auckland, N.Z. Grate-draught regulator ..	15480	3 Oct.	87	30 Oct.*
MacWilliam, H. G., New Rochelle, U.S.A. Braces ..	15823	30 Dec.	6	23 Jan., 1903.
Maddern, W. A., Boulder City, W.A. Ore-roasting furnace ..	15516	16 Oct.	87	30 Oct.
Malden, A., and another, London, Eng. Agglomerating ore ..	15514	16 Oct.	87	30 Oct.*
Malden, W. J., and another, London, Eng. Agglomerating ore ..	15514	16 Oct.	87	30 Oct.*
Manners, S. H., Norwood, South Australia. Root-grubbing machine ..	15759	15 Dec.	2	8 Jan., 1903.
Marcard, F. T. H. M. J., Adelaide, South Australia. Reciprocatory motor ..	15582	31 Oct.	94	13 Nov.
Marconi, G., and others, London, Eng. Wireless telegraphy ..	15689	3 May	102	11 Dec.
Marconi's Wireless Telegraph Company and another, London, Eng. Wireless telegraphy ..	15689	3 May	102	11 Dec.
Marisco, F., Invercargill, N.Z. Gold-dredging appliance ..	14409	10 Jan.	99	27 Nov.
Masters, A. B., Clinton, N.Z. Water-gauge for steam-boiler ..	15585	31 Oct.	94	13 Nov.*
Matheson, D., and another, Otakia, N.Z. Animal-trap ..	15505	10 Oct.	..	..
Matthews, F., Wellington, N.Z. Brake for vehicle ..	15792	19 Dec.	2	8 Jan., 1903.*
Maude, T., Christchurch, N.Z. Atomiser ..	15535	20 Oct.	87	30 Oct.*
Mayne, W., Mildura, Vic. Engine-valve gear ..	15583	31 Oct.	94	13 Nov.
Mayo, B. F. (See United Shoe Machinery Company, No. 15650.) ..				
Mayr, H., Auckland, N.Z. Safety sash ..	15591	30 Oct.	94	13 Nov.
Mayson, T. W., Auckland, N.Z. Motor ..	15685	22 Nov.	102	11 Dec.*

ALPHABETICAL LIST OF APPLICANTS FOR LETTERS PATENT—continued.

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
McBride, J. C., Queenstown, N.Z. Indicating-apparatus, &c. ..	15510	9 Oct. ..	87	30 Oct.*
McConachy, P. H., Gore, N.Z. Staple ..	15641	18 Nov. ..	99	27 Nov.*
McCormick, M., Temuka, N.Z. Controlling propeller ..	15548	16 Oct. ..	87	30 Oct.*
McCurdie, W. D. R., Dunedin, N.Z. Bottle-corking ..	15793	17 Dec. ..	2	8 Jan., 1903.*
McCurdie, W. D. R., Dunedin, N.Z. Marking survey-pegs ..	15794	17 Dec. ..	2	8 Jan., 1903.*
McDonough, T., Hobart, Tasmania. Lamp-extinguisher ..	15496	9 Oct. ..	87	30 Oct.*
McDougall, S., London, Eng. Lavatory requisite ..	15807	22 Dec. ..	2	8 Jan., 1903.*
McGowan, H., East Melbourne, Vic. Linotype machine ..	15717	4 Dec. ..	102	11 Dec.*
McKay, H. V., Ballarat, Vic. Seed-drill. (J. and J. Andrewartha)	14746	14 April ..	2	8 Jan., 1903.
McKay, N. G., Auckland, N.Z. Bottle for drenching horses ..	14531	13 Feb. ..	99	27 Nov.
McKenzie, D., Dunedin, N.Z. Penholder ..	15817	30 Dec. ..	6	23 Jan., 1903.*
McKenzie, R., Invercargill, N.Z. Edged tools ..	15722	2 Dec. ..	102	11 Dec.*
McKenzie, W., and another, Isla Bank, N.Z. Lifting-jack ..	15760	15 Dec. ..	2	8 Jan., 1903.
McKinnon, J., Whareora, N.Z. Distance-indicator for train ..	15816	29 Dec. ..	6	23 Jan., 1903.*
McLaughlin, M. A., San Francisco, U.S.A. (See G. W. Basley, No. 15001.)				
McLean, J., Wellington, N.Z. Controlling-gear for reversing engine	15802	22 Dec. ..	2	8 Jan., 1903.*
McLean, W., Invercargill, N.Z. Billiard apparatus ..	15649	19 Nov. ..	99	27 Nov.*
McLeod, A., Auckland, N.Z. Burner and heater ..	15498	6 Oct. ..	87	30 Oct.*
McLeod, A., Auckland, N.Z. Branding animals ..	15512	9 Oct. ..	87	30 Oct.*
McLeod, H. N., and another, Wellington, N.Z. Gold-dredging ..	14401	6 Jan. ..	87	30 Oct.
McMillan, J. L., Syracuse, New York, U.S.A. Rotary engine ..	15610	6 Nov. ..	99	27 Nov.
McMullen, G., and others, Perth, W.A. Cleaning tram-rails ..	14863	9 May ..	78	2 Oct.
Mead, J., Auckland, N.Z. Book-case fastener, &c. ..	15559	23 Oct. ..	94	13 Nov.*
Memory, A. W., and another, Wellington, N.Z. Support for settee, &c.	14512	11 Feb. ..	99	27 Nov.
Metallic Compounds Separation Syndicate, Limited, London, Eng. Depositing fumes from ore. (W. W. Fyfe)	15572	30 Oct. ..	6	23 Jan., 1903.
Miller, E. H., and another, London, Eng. (See W. E. Hughes, No. 15780.)				
Miller, F. A., Lawrence, N.Z. Table for invalids ..	14600	10 March ..	102	11 Dec.
Moffatt, H. L., and others, Motueka, N.Z. Signalling state of tide ..	15776	17 Dec. ..	2	8 Jan., 1903.*
Moison, J. M., Ashburton, N.Z. Mechanical nurse ..	15484	6 Oct. ..	87	30 Oct.*
Moore, F., Murrickville, N.S.W. Oil and grease separator ..	15762	12 Dec. ..	2	8 Jan., 1903.
Moore, J. C., New York, U.S.A. Sewing-machine ..	14456	21 Jan. ..	94	13 Nov.
Moss, J., Melbourne, Vic. Window-sash ..	15821	30 Dec. ..	6	23 Jan., 1903.
Mullan, A., San Francisco, U.S.A. (See Economic Hoisting and Ballast Company, No. 15749.)				
Murdoch, H. H., Hastings, N.Z. Set-square ..	15660	19 Nov. ..	99	27 Nov.
Murison, J., and another, Dunedin, N.Z. Sleeve of lower tumbler shaft	14808	26 April ..	2	8 Jan., 1903.
Murphy, J., Fordell, N.Z. Horse-cover ..	15500	10 Oct. ..	87	30 Oct.*
Murphy, J. T., Blenheim, N.Z. Harness ..	15658	20 Nov. ..	99	27 Nov.*
Murray, R. L. H., Auckland, N.Z. Water-heater ..	15536	16 Oct. ..	9	5 Feb., 1903.
Mutton, T., and another, Brighton, Eng. Stand for exhibition purposes	15613	4 Nov. ..	99	27 Nov.
Napier, T., Hawera, N.Z. Boot-polishing machine ..	15580	30 Oct. ..	99	27 Nov.*
Newman, G. F., Peel Forest, Canterbury, N.Z. Waterproof composition	15634	17 Nov. ..	99	27 Nov.
Nichols, W., and another, New Plymouth, N.Z. Horse-cover fastening	15766	15 Dec. ..	6	23 Jan., 1903.
Nicholson, S., Gore, N.Z. Tire-removing appliance ..	15659	20 Nov. ..	2	8 Jan., 1903.*
Nuttall, G., Blackball, Westland, N.Z. Life-saving jacket ..	15761	15 Dec. ..	..	..
Nuttall, W. T., and another, Wanganui, N.Z. Dropper for wire fence	15755	13 Dec. ..	2	8 Jan., 1903.
Oakden, F., Dunedin, N.Z. Cement-manufacture ..	14605	8 March ..	2	8 Jan., 1903.
O'Donoghue, J., Waimate, N.Z. Chaff-cutter and corn-crusher ..	14601	10 March ..	102	11 Dec.
Olson, O. M. J., Toongabbie, N.S.W. Construction-nails ..	15518	13 Oct. ..	87	30 Oct.*
Ornstien, F. S., Kensington, Vic. Wheel-tire cover ..	15703	29 Nov. ..	102	11 Dec.*
Ornstien, F. S., Kensington, Vic. Shaping wheel-tire cover ..	15704	29 Nov. ..	102	11 Dec.*
Osmond, C. H., Dunedin, N.Z. Artificial minnow ..	14684	26 March ..	83	16 Oct.
Owens, M. J., Toledo, U.S.A. (See Toledo Glass Company, No. 15522.)				
Pallant, W. J., Palmerston North, N.Z. Broom ..	15733	9 Dec. ..	2	8 Jan., 1903.*
Pallant, W. J., Palmerston North, N.Z. Cramping-tool ..	15734	9 Dec. ..	2	8 Jan., 1903.*
Parker, D. P., and another, Coromandel, N.Z. Acetylene-generator	15616	7 Nov. ..	99	27 Nov.*
Parsons, Hon. C. A., Newcastle, Eng. Condenser ..	15601	5 Nov. ..	99	27 Nov.
Paterson, J., Gisborne, N.Z. Attachment to bicycle ..	15788	17 Dec. ..	2	8 Jan., 1903.*
Paterson, J., and another, Gisborne, N.Z. Clothes-wringer ..	15474	1 Oct. ..	83	16 Oct.*
Payne, J., Auckland, N.Z. Converting ordinary into a spring dumb-bell	15639	14 Nov. ..	99	27 Nov.*
Pearse, R. W., Upper Waitohi, N.Z. Bicycle ..	14507	8 Feb. ..	99	27 Nov.
Pease, E. L., Darlington, Eng. Structural arrangement ..	15740	10 Dec. ..	2	8 Jan., 1903.
Pennington, H., Ngairi, Taranaki, N.Z. Milk cooler and aerator ..	14556	24 Feb. ..	99	27 Nov.
Pennington, R. E., and another, Melbourne, Vic. Lock-nut plate ..	15623	13 Nov. ..	99	27 Nov.*
Perky, H. D., New York, U.S.A. Biscuit-making machine ..	15688	27 Nov. ..	102	11 Dec.
Peters, H. C., Invercargill, N.Z. Clothing-grip ..	15502	10 Oct. ..	87	30 Oct.*
Pifer, G. N., Cleveland, U.S.A. Photographic apparatus	15527	25 Oct., 1901†	2	8 Jan., 1903.*
Pifer, G. N., Cleveland, U.S.A. Photographic plate ..	15528	25 Oct., 1901†	2	8 Jan., 1903.*
Pifer, G. N., Cleveland, U.S.A. Coin-controlled machine ..	15731	13 Dec., 1901†	2	8 Jan., 1903.
Phillipps, J. M., Wharepapa, N.Z. Stopping and restarting wind-mills	15551	25 Oct. ..	87	30 Oct.

ALPHABETICAL LIST OF APPLICANTS FOR LETTERS PATENT—*continued.*

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Philpott, T. S., Wellington, N.Z. Oiling axles	14609	12 March ..	2	8 Jan. 1903.
Philpott, T. S., and another, Wellington, N.Z. Indicating lengths of rolls of textile material	15471	3 Oct. ..	83	16 Oct.*
Philpott, T. S., Wellington, N.Z. Non-refillable bottle	15475	6 Oct. ..	87	30 Oct.
Pike, A. S., Wellington, N.Z. Belt and rope tightener	15747	11 Dec. ..	2	8 Jan., 1903.*
Pitt, R. C., and another, Christchurch, N.Z. Pneumatic tire	14408	8 Jan. ..	83	16 Oct.
Pledger, J. H., Dunedin, N.Z. Force-draught fire-screen	14035	21 Sept., 1901..	83	16 Oct.
Pomeroy, J., Invercargill, N.Z. Sheep-shears	14590	1 March ..	99	27 Nov.
Pool, A. J., and another, Gisborne, N.Z. Clothes wringer	15474	1 Oct. ..	83	16 Oct.*
Porter, J. W., Williamstown, Vic. Operating moving targets	15230	7 Aug. ..	99	27 Nov.
Porter, T. R., Wellington, N.Z. Bicycle-handle grip	15674	24 Nov. ..	102	11 Dec.*
Pritzkow, W., and another, Salzgungen, Germany. Manufacture of fibre from New Zealand flax	15711	29 Nov. ..	2	8 Jan., 1903.
"Pyrojim" Syndicate, Limited, and another, London, Eng. Converting house-refuse into fuel. (J. M. Jameson)	15653	19 Nov. ..	99	27 Nov.*
Quennell, C., and another. (See W. E. Hughes, No. 15780.)				
Quertier, H., Gore, N.Z. A machine for filling gravel	15501	10 Oct. ..	87	30 Oct.*
Quertier, H., Gore, N.Z. Excavating, washing, &c., ballast	15586	31 Oct. ..	94	13 Nov.*
Ramsay, J., Southland, N.Z. Gold-saving table	15656	17 Nov. ..	99	27 Nov.*
Ramsay, J., Southland, N.Z. Gold-saving table	15726	5 Dec. ..	2	8 Jan., 1903.*
Rankin, A., and others, Perth, W.A. Appliance for cleaning tram-rails	14863	9 May ..	78	2 Oct.
Ray, C., Christchurch, N.Z. Pneumatic tire	14395	3 Jan. ..	83	16 Oct.
Rayward, H. H., and another, Wellington, N.Z. Extracting zinc from ores. (G. D. Delprat)	15681	26 Nov. ..	102	11 Dec.*
Rayward, H. H., and another, Wellington, N.Z. Extracting sulphides from ores. (G. D. Delprat)	15687	27 Nov. ..	2	8 Jan., 1903.
Reeves, A. E., Maitua, N.Z. Scutching-machine	15710	29 Nov. ..	102	11 Dec.*
Reilly, J., and others, Wellington, N.Z. Marine governor	15633	15 Nov. ..	99	27 Nov.*
Rice, T., Feilding, N.Z. Clip for umbrella-ribs	15513	14 Oct. ..	94	13 Nov.
Riddell, W., Dunedin, N.Z. Butter-printer	14473	23 Jan. ..	87	30 Oct.
Robb, J., Ohingaiti, N.Z. Parceling, &c., butter	15713	3 Dec. ..	102	11 Dec.*
Roberts, T., Nelson, N.Z. Construction of windows	15546	21 Oct. ..	87	30 Oct.*
Roberts, T., Nelson, N.Z. Face pivot hinge	15763	16 Dec. ..	2	8 Jan., 1903.*
Robertson, J., and another, Lawrence, N.Z. Sowing seed	15550	16 Oct. ..	87	30 Oct.*
Robertson, J., Maheno, N.Z. Ditch-plough	15588	29 Oct. ..	94	13 Nov.*
Robertson, P. F. A., and another, Lawrence, N.Z. Sowing seed	15550	16 Oct. ..	87	30 Oct.*
Robertson, R. E., Auckland, N.Z. Air brake	15708	2 Dec. ..	102	11 Dec.*
Robertson, T., Ballarat, Vic. Rabbit-poisoning	15778	18 Dec. ..	2	8 Jan., 1903.
Robinson, A. A., and another, Moorooka, Queensland. Butter-printing machine	15543	23 Oct. ..	99	27 Nov.*
Robson, J., Ngairi, Taranaki, N.Z. Sawing-machine	15655	19 Nov. ..	99	27 Nov.*
Roger, J., and another, London, Eng. Obtaining extract of tea	15664	18 Nov. ..	99	27 Nov.
Ross, D. R., Brunswick, Vic. (See W. E. Hughes, No. 15564.)				
Ross, D. R., Brunswick, Vic. Milking-machine	15626	13 Nov. ..	99	27 Nov.*
Rowntree, A., South Rakaia, N.Z. Moustache-guard	14624	11 March ..	102	11 Dec.
Russell, J. J., Milton, N.S.W. (See J. Channon, No. 15678.)				
Sagnol, P. E., and another, Brisbane, Queensland. Relief-valve	15719	4 Dec. ..	102	11 Dec.*
Salomo, H., Melbourne, Vic. Supports for chairs	15469	3 Oct. ..	83	16 Oct.*
Schnetzker, Aussig-on-Elbe, Austria. Soap-moulding machine	15727	3 Dec. ..	..	..
Severin, H., Achem, Germany. Manufacture of glass articles	15690	27 Nov. ..	102	11 Dec.
Sharp, J., jun., and another, Nelson, N.Z. Razor-strop	15732	9 Dec. ..	2	8 Jan., 1903.
Shepherd, J., Dunedin, N.Z. Dredging machinery	15097	10 July ..	102	11 Dec.*
Shepherd, J., Dunedin, N.Z. Dredging machinery	15503	10 Oct. ..	87	30 Oct.*
Sigley, J., Gisborne North, N.Z. Newspaper-delivery box	15236	2 Aug. ..	94	13 Nov.
Slack, E. A., Gisborne, N.Z. Dental suction-cells. (T. Slack)	14521	5 Feb. ..	94	13 Nov.
Slack, T., Sheffield, Eng. (See E. A. Slack, No. 14521.)				
Slack, W. F., Wellington, N.Z. Ventilator	15552	25 Oct. ..	87	30 Oct.*
Smith, A., and another, Wellington, N.Z. Renewing window-cords	15499	10 Oct. ..	..	..
Smith, H., Coventry, Eng. (See G. W. Basley, No. 15724.)				
Smith, J. D., Dunedin, N.Z. Food-plate	15612	4 Nov. ..	99	27 Nov.*
Smith, R. F., Dunedin, N.Z. Window-sash fastener	15027	19 June ..	78	2 Oct.
Smith, T., and another, Melbourne, Vic. Flushing-cistern	15694	27 Nov. ..	2	8 Jan., 1903.
Smith, W. N., Ballarat, Vic. Table-tennis net	15608	6 Nov. ..	..	..
Sprey, E., New Brighton, N.Z. Fastening for boots, &c.	15744	11 Dec. ..	2	8 Jan., 1903.*
Stacey, J., and another, Auckland, N.Z. Medicated sweetmeat	15808	20 Dec. ..	2	8 Jan., 1903.
Steele, J. T., Surrey, Eng. Binding and holding sheets of paper	15741	10 Dec. ..	2	8 Jan., 1903.
Steuart, W., and another, Auckland, N.Z. Reduction of iron-sand, &c.	15661	18 Nov. ..	99	27 Nov.*
Steuart, W., and another, Auckland, N.Z. Reduction of iron-sand	15662	18 Nov. ..	99	27 Nov.*
Stewart, W., Dunedin, N.Z. Copying-ink	15530	15 Oct. ..	87	30 Oct.*
Storrie, A., Invercargill, N.Z. Seed sower and hopper	14423	8 Jan. ..	83	16 Oct.
Stortenbeker, H. C., and another, Tingha, N.S.W. Starting horse-races	15716	4 Dec. ..	102	11 Dec.
Stretton, S. S., Ongarue, N.Z. Saucepan-lid	15666	21 Nov. ..	99	27 Nov.*
Stuart, H. R., Pittsburg, U.S.A. (See J. P. Campbell, No. 15785.)				
Stuart. (See under Burdett-Stuart.)				
Summerton, F. L., and others, Christchurch, N.Z. Sustaining air-pressure in tire	15567	28 Oct. ..	99	27 Nov.*
Sutcliffe, T., Stoke Newington, Eng. Aerating liquids	15824	31 Dec. ..	9	5 Feb., 1903.
Sutherland, A., Balclutha, N.Z. Wire-strainer	14569	28 Feb. ..	102	11 Dec.
Suttie, R. L., Onehunga, N.Z. Oiling axles	15818	30 Dec. ..	6	23 Jan., 1903.*
Swann, C. J., and another, Greymouth, N.Z. Gold-saving screen	15563	25 Oct. ..	94	13 Nov.
Swinnerton, W., Auckland, N.Z. Stand for ironing-board	15558	24 Oct. ..	102	11 Dec.

ALPHABETICAL LIST OF APPLICANTS FOR LETTERS PATENT—continued.

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Taylor, D., and another, Otakia, N.Z. Animal-trap	15505	10 Oct. ..	..	..
Taylor, J. H. R., Riverton, N.Z. Branding cheese	14497	6 Feb. ..	94	13 Nov.
Taylor, M., Paris, France. Gas-engine	15748	11 Dec. ..	2	8 Jan., 1903.
Thomas, W., Geraldine, N.Z. Production of printing-surfaces	14607	10 March ..	102	11 Dec.
Thompson, C. W., Johannesburg, South Africa. Rock-drill	15771	17 Dec. ..	..	..
Thomsen, W. A., Rotorua, N.Z. Securing hat to head	15461	1 Oct. ..	83	16 Oct.*
Thomson, J., Invercargill, N.Z. Treating washdirt	15799	17 Dec. ..	2	8 Jan., 1903.*
Thomson, J., Invercargill, N.Z. Treating washdirt	15800	18 Dec. ..	2	8 Jan., 1903.*
Thomson, J., Invercargill, N.Z. Treating washdirt	15801	18 Dec. ..	2	8 Jan., 1903.*
Todd, R., Invercargill, N.Z. Restoring overworked sponge in manufacture of bread	15470	3 Oct. ..	83	16 Oct.*
Toledo Glass Company, Toledo, U.S.A. Gathering and shaping glass. (M. J. Owens)	15522	16 Oct. ..	87	30 Oct.
Tonks, T., and another, Brisbane, Queensland. Relief-valve	15719	4 Dec. ..	102	11 Dec.*
Trolley, I., Grantham, Eng. Straw-trussers	15600	5 Nov. ..	94	13 Nov.*
Trube, G. A., and another, London, Eng. (See T. Hunter, No. 15579.) .. ..	..	..	..	..
Trudgeon, W. G., and another, North Melbourne, Vic. Portable washing-copper	15692	27 Nov. ..	102	11 Dec.
Tudhope, R., and another, Auckland, N.Z. Ventilator	15481	3 Oct. ..	87	30 Oct.
United Shoe Machinery Company, Paterson, U.S.A. Machine for trimming boots, &c. (B. F. Mayo)	15650	19 Nov. ..	99	27 Nov.*
Urquhart, D., Auckland, N.Z. Rowlock and grip-bracket	15457	1 Oct. ..	83	16 Oct.*
Verity, C. H., Wellington, N.Z. Water-heater	15777	18 Dec. ..	..	..
Wainwright, H. S., Kent, Eng. Device for promoting draught and arresting sparks in engines	15617	7 Nov. ..	99	27 Nov.
Walker, E., St. Albans, N.Z. Potato-carrier	15571	30 Oct. ..	..	..
Walker, H. R., New Brighton, N.Z. Carriage of bombs, &c.	15693	27 Nov. ..	102	11 Dec.*
Wardrop, W., and another, Dunedin, N.Z. Hair and hat pin and fastening	14828	2 May ..	2	8 Jan., 1903.
Waters, E., Melbourne, Vic. Hydrocarbon-vapour burners. (A. Blanchard)	15718	4 Dec. ..	102	11 Dec.
Waters, W., Auckland, N.Z. Siphon	15702	27 Nov. ..	102	11 Dec.*
Watt, C. L., and another, Dunedin, N.Z. Securing sleeve on dredge-tumbler	14808	26 April ..	2	8 Jan., 1903.
Watt, J. R., Timaru, N.Z. Freezing-room door	15589	3 Nov. ..	99	27 Nov.*
Watts, W., Midland Junction, W.A. Pivot blade-joint railway-crossing	15493	9 Oct. ..	87	30 Oct.*
Weaver, A., Hastings, N.Z. Wool-washing	15519	14 Oct. ..	87	30 Oct.*
Webster, F. A., and another, Christchurch, N.Z. Leather and rubber composite	15721	3 Dec. ..	102	11 Dec.*
Webster, W., Melbourne, Vic. Carbide-feeder	15752	10 Dec. ..	2	8 Jan., 1903.*
West, M. T., and another, Ngairu, Taranaki, N.Z. Milk cooler and aerator	14556	24 Feb. ..	99	27 Nov.
Westinghouse, G., Pittsburg, U.S.A. Linings of metallurgical vessels. (W. J. Knox)	15479	7 Oct. ..	87	30 Oct.
Whelan, J. T., Addington, N.Z. Boot-cleaner	15815	29 Dec. ..	..	..
Whishaw, W. M., and another, Feilding, N.Z. Cooling cream	15825	31 Dec. ..	6	23 Jan., 1903.*
White, S., Dunedin, N.Z. Game apparatus	15629	11 Nov. ..	99	27 Nov.*
White, S., Dunedin, N.Z. Opening soda-water bottles, &c.	15697	26 Nov. ..	102	11 Dec.*
White, S., Dunedin, N.Z. Drill	15796	19 Dec. ..	9	23 Jan., 1903.*
Whitfield, P. J., Geelong, Vic. Wool-compressing	15773	17 Dec. ..	2	8 Jan., 1903.
Whitney, A. C., Auckland, N.Z. (See Colonial Ammunition Company, Limited, No. 15435.) .. ..	..	..	..	..
Whitney, A. C., Auckland, N.Z. Alarm gun	15627	13 Nov. ..	2	8 Jan., 1903.*
Whitney, F. L., San Francisco, U.S.A. Wool-scouring machinery	15490	9 Oct. ..	87	30 Oct.
Whittaker, H., Timaru, N.Z. Stiffener for boots	15534	18 Oct. ..	87	30 Oct.*
Whittingham, R., Gore, N.Z. Aerial car	15787	18 Dec. ..	2	8 Jan., 1903.*
Wickens, E. L., South Yarra, Vic. Rotary steam-engine	15625	13 Nov. ..	99	27 Nov.*
Wieda, E. F. W., Paterson, U.S.A. Mixing-machine	15746	11 Dec. ..	2	8 Jan., 1903.
Wiens, J. P., Milwaukee, U.S.A. Dustless brush	15515	16 Oct. ..	87	30 Oct.
Wight, R. B., Auckland, N.Z. Cleaning-machine	15526	14 Oct. ..	87	30 Oct.*
Williams, H. G., Masterton, N.Z. Plough attachments	15466	2 Oct. ..	83	16 Oct.*
Williams, R., and others, Petone, N.Z. Marine governor	15633	15 Nov. ..	99	27 Nov.*
Williams, R., Taieri, N.Z. Siphon	15698	26 Nov. ..	102	11 Dec.*
Williamson, A., Cromwell, N.Z. Pipe-cleaner	15587	29 Oct. ..	94	13 Nov.*
Williamson, P. R., Christchurch, N.Z. Rotary pump	14263	21 Nov., 1901 ..	102	11 Dec.
Wilson, F. P., Wellington, N.Z. Printers' galley and chase	15635	17 Nov. ..	99	27 Nov.
Wilson, H. E., Auckland, N.Z. Bicycle-frame	15511	13 Oct. ..	87	30 Oct.*
Winepress, J. N., Brighton, Vic. Opening oysters	15467	2 Oct. ..	83	16 Oct.
Winter, F., Auckland, N.Z. Water-cycle	14373	24 Dec., 1901 ..	83	16 Oct.
Winters, J., Collingwood, Vic. Tightening rims of wooden wheels	15584	31 Oct. ..	94	13 Nov.*
Wojciechowski, J. (See American Tobacco Company, No. 15603.) .. ..	..	..	..	..
Wolsley Sheep-shearing Machine Company, Limited, and another, Birmingham, Eng. Machine for cutting wool	15644	19 Nov. ..	99	27 Nov.
Wood, V. H., Auckland, N.Z. Curtain-support	15636	17 Nov. ..	99	27 Nov.*
Wright, G. W., Melbourne, Vic. Concentrating ores	15593	31 Oct. ..	94	13 Nov.*
Young, K., Timaru, N.Z. Bottle	15765	16 Dec. ..	2	8 Jan., 1903.*

Alphabetical List of Inventions for Quarter ending 31st December, 1902.

THIS list includes also applications lodged prior to but gazetted during the quarter, and complete specifications following provisional specifications accepted and gazetted during the quarter. Where the number and date of the *Gazette* are omitted, the application has not yet been accepted.

* Denotes a provisional specification. † Denotes a prior date under section 106 of "The Patents, Designs, and Trade Marks Act, 1889."

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Acetylene-generator	W. R. Hyde	15606	4 Nov. ..	94	13 Nov.
Acetylene-generator	J. Baker and D. P. Parker	15616	7 Nov. ..	99	27 Nov.*
Acetylene-generator, Carbide-feeder for	W. Webster	15752	10 Dec. ..	2	8 Jan., 1903.*
Advertising parcel-grip	A. H. Brownley	15570	30 Oct. ..	2	8 Jan., 1903.
Advertising, Stand for	T. Mutton and H. E. Hupton	15613	4 Nov. ..	99	27 Nov.
Aerated water, Saving carbonic-acid gas in making	H. J. Ballin	15555	25 Oct. ..	94	13 Nov.*
Aerating and bottling liquids	T. Sutcliffe	15824	31 Dec. ..	9	5 Feb., 1903.
Aerator. (See Milk cooler and aerator.)					
Aerial car	R. Whittingham	15787	18 Dec. ..	2	8 Jan., 1903.*
Agglomerating finely divided ore	A. Malden and W. J. Malden	15514	16 Oct. ..	87	30 Oct.*
Agitating auriferous material	W. R. Keane and B. Hogg	14515	12 Feb. ..	99	27 Nov.
Air-brake, Railway, &c.	R. E. Robertson	15708	2 Dec. ..	102	11 Dec.*
Air-compressing	A. A. Humphrey	15521	16 Oct. ..	87	30 Oct.*
Air-pressure in tires, Sustaining	P. J. Darling, F. L. Summerton, and F. J. Amos	15567	28 Oct. ..	99	27 Nov.*
Alarm gun	A. C. Whitney	15627	13 Nov. ..	2	8 Jan., 1903.*
Amalgamating-apparatus	J. J. Hill	15753	10 Dec. ..	2	8 Jan., 1903.
Amalgamator, &c.	J. R. Harrison	15462	1 Oct. ..	83	16 Oct.*
Ammunition-loading, Wad for	The Colonial Ammunition Company, Limited	15435	24 Sept. ..	102	11 Dec.
Animal-trap. (See Trap.)				102	11 Dec.*
Arc lamp, Electric	J. P. Campbell	15786	18 Dec. ..	2	8 Jan., 1903.
Artesian-water pipe	J. Free	15701	28 Nov. ..	2	8 Jan., 1903.
Artificial fuel	T. H. Brown	14400	6 Jan. ..	83	16 Oct.
Artificial-fuel briquettes	International Fuel Company	15576	30 Oct. ..	94	13 Nov.
Atomiser	T. Maude	15535	20 Oct. ..	87	30 Oct.*
Augur, Earth	W. L. Iwan and J. H. Iwan	15790	16 Dec. ..	2	8 Jan., 1903.
Auriferous-material agitator	W. R. Keane and B. Hogg	14515	12 Feb. ..	99	27 Nov.
Auxiliary propeller for vessel	R. P. Gibbons	15640	13 Nov. ..	99	27 Nov.*
Axle of vehicle, Oiling	T. S. Philpott	14609	12 March ..	2	8 Jan., 1903.
Axle of vehicle, Oiling	R. L. Suttie	15818	30 Dec. ..	6	23 Jan., 1903.*
Balling cows	W. V. Hosking	15700	29 Nov. ..	6	23 Jan., 1903.*
Ballast, Excavating, &c.	H. Quertier	15501	10 Oct. ..	87	30 Oct.*
Ballast, Excavating, &c.	H. Quertier	15586	31 Oct. ..	94	13 Nov.*
Belt for medical purposes, Electric	G. W. Basley	15001	11 June ..	83	16 Oct.
Belt and rope tightner	A. S. Pike	15747	11 Dec. ..	2	8 Jan., 1903.*
Bicycle	R. W. Pearse	14507	8 Feb. ..	99	27 Nov.
Bicycle attachment for carrying child, &c.	J. Paterson	15788	17 Dec. ..	2	8 Jan., 1903.*
Bicycle-frame	H. E. Wilson	15511	13 Oct. ..	87	30 Oct.*
Bicycle-handle grip	T. R. Porter	15674	24 Nov. ..	102	11 Dec.*
Bicycle-tire, Removing	S. Nicolson	15659	20 Nov. ..	2	8 Jan., 1903.*
Billiards, Parlour	W. McLean	15649	19 Nov. ..	99	27 Nov.*
Billiards, "Roulette"	E. Hasselbach	15736	6 Dec. ..	2	8 Jan., 1903.*
Binding sheets of paper	J. T. Steele	15741	10 Dec. ..	2	8 Jan., 1903.
Binocular-suspender	C. D. Lightband	15622	7 Nov. ..	99	27 Nov.*
Bird trap, Small	F. A. Burdett-Stuart	15595	4 Nov. ..	99	27 Nov.*
Biscuit-making machine	H. D. Perky	15688	27 Nov. ..	102	11 Dec.
Blind-roller, Sustaining and fastening	J. A. Belk	13968	4 Sept., 1901	102	11 Dec.
Blind, Venetian	R. Barrett	15523	16 Oct. ..	87	30 Oct.*
Blight, Composition for	W. J. Botting	15538	22 Oct. ..	87	30 Oct.*
Board. (See Ironing-board.)					
Boiler-furnace	J. Chambers and Son, Limited	14338	16 Dec., 1901	102	11 Dec.
Boiler, Multitubular water-column	F. F., L. B., A. C., and H. W. Coulsell	15677	25 Nov. ..	102	11 Dec.*
Boiler, Oil-fuel	W. S. Kay	15489	3 Oct. ..	87	30 Oct.*
Boiler, Removing corrosive matter from steam	R. B. Wight	15526	14 Oct. ..	87	30 Oct.*
Boiler, Steam	R. P. Gibbons	15497	7 Oct. ..	87	30 Oct.*
Boiler, Vertical steam	R. P. Gibbons	15614	5 Nov. ..	99	27 Nov.*
Boiler, Water-gauge for	A. B. Masters	15585	31 Oct. ..	94	13 Nov.*
Boiler, Water-tube	J. Cowan	15569	30 Oct. ..	94	13 Nov.
Bombs, Carrying and mixing components of	H. R. Walker	15693	27 Nov. ..	102	11 Dec.*
Boot-cleaner	J. T. Whelan	15815	29 Dec. ..	..	..
Boot-fastener	W. Beamish	15533	16 Oct. ..	87	30 Oct.*
Boot-fastener	E. Sprey	15744	11 Dec. ..	2	8 Jan., 1903.*
Boot-nail	F. Jones	15618	12 Nov. ..	99	27 Nov.*
Boot-polishing machine	T. Napier	15580	30 Oct. ..	99	27 Nov.
Boot-stiffener	H. Whittaker	15534	18 Oct. ..	87	30 Oct.*
Boot, Trimming sole of	United Shoe Machinery Company	15650	19 Nov. ..	99	27 Nov.*
Bottle. (See Non-refillable bottle, Un-refillable bottle.)					
Bottle, Brand-protector	K. Young	15765	16 Dec. ..	2	8 Jan., 1903.*
Bottle, Corking	W. D. R. McCurdie	15793	17 Dec. ..	2	8 Jan., 1903.*
Bottle for drenching purposes	N. G. McKay	14531	13 Feb. ..	99	27 Nov.
Bottle-opener	S. White	15697	26 Nov. ..	102	11 Dec.

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Bottle, Stopper for	L. Caselberg	14476	27 Jan. ..	94	13 Nov.
Bottling liquids, Aerating and	T. Sutcliffe	15824	31 Dec. ..	9	5 Feb., 1903.
Bowden mechanism	G. W. Basley	15724	1 Dec. ..	2	8 Jan., 1903.
Box. (See Newspaper-box, Seed-drill box.)					
Braces	H. G. MacWilliam	15823	30 Dec. ..	6	23 Jan., 1903.
Braces, Clothing-grip for	H. C. Peters	15502	10 Oct. ..	87	30 Oct.*
Brake. (See Electric brake, or Railway brake, Vehicle-brake.)					
Brand for cattle, Fire-heated	A. McLeod	15512	9 Oct. ..	87	30 Oct.*
Brand-protector bottle	K. Young	15765	16 Dec. ..	2	8 Jan., 1903.*
Branding cheese	J. H. R. Taylor	14497	6 Feb. ..	94	13 Nov.
Brick, Plug, and hæmatite concrete	R. Harrison	15673	24 Nov. ..	102	11 Dec.*
Brick, Perforated	J. Clark	15459	1 Oct. ..	83	16 Oct.*
Briquette, Artificial-fuel	International Fuel Company	15576	30 Oct. ..	94	13 Nov.
Brooder. (See Poultry-brooder.)					
Broom and brush	W. J. Pallant	15733	9 Dec. ..	2	8 Jan., 1903.*
Broom-handle to broom, Attaching	N., J. S., J. F., and M. Jepsen, and J. Bomford	15594	4 Nov. ..	94	13 Nov.
Brush, Dustless sweeping	J. P. Wiens	15515	16 Oct. ..	87	30 Oct.
Bucket. (See Dredge-bucket.)					
Buckle attachment to hook	A Douglas	14454	21 Jan. ..	83	16 Oct.
Building, Portable	D. Brummer	15651	19 Nov. ..	..	..
Burner. (See also Gas-burner, Hydro- carbon-vapour burner.)					
Burner and heater	A. McLeod	15498	6 Oct. ..	87	30 Oct.*
Butter, Apparatus for canning	E. S. Burman	15456	1 Oct. ..	83	16 Oct.
Butter-cooler and filter	A. Lyell	14960	6 June ..	94	13 Nov.
Butter, Cutting, weighing, &c.	J. Robb	15713	3 Dec. ..	102	11 Dec.*
Butter-printer	W. Riddell	14473	23 Jan. ..	87	30 Oct.
Butter tinning and printing	R. Boxall and A. T. Robinson	15543	23 Oct. ..	99	27 Nov.
Button-hole for collars, &c.	W. Beamish	15797	19 Dec. ..	2	8 Jan., 1903.*
Calculating-apparatus	J. C. McBride	15510	9 Oct. ..	87	30 Oct.*
Can-body-making machine	G. S. Dunoon	15491	9 Oct. ..	87	30 Oct.
Can, Oil-feeding	W. Beamish	15631	11 Nov. ..	99	27 Nov.*
Canister for turnip and other seeds	E. Bowmar	15604	5 Nov. ..	94	13 Nov.*
Canning butter, Apparatus for	E. S. Burman	15456	1 Oct. ..	83	16 Oct.
Cans, Delivering milk into	W. Barton	15460	1 Oct. ..	83	16 Oct.*
Carbide-feeder for acetylene-generator	W. Webster	15752	10 Dec. ..	2	8 Jan., 1903.*
Carbonic-acid gas, Saving	H. J. Ballin	15555	25 Oct. ..	94	13 Nov.*
Carburetted water-gas	H. W. G. Henderson	14654	20 March ..	83	16 Oct.
Cargo from vessel, Unloading	Economic Hoisting and Ballast Company	15749	11 Dec. ..	2	8 Jan., 1903.
Carriage-spring	T. C. Hatton	15561	25 Oct. ..	94	13 Nov.
Cart-tailboard fastener	H. Anstice	15754	12 Dec. ..	2	8 Jan., 1903.
Cash-carrier system	Lamson Store-service Company, Limited	15573	30 Oct. ..	94	13 Nov.
Cash-carrier, Wire-track	Lamson Store-service Company, Limited	15574	30 Oct. ..	94	13 Nov.
Cash-railway, Single-wire system of	G. W. Basley	15547	20 Oct. ..	87	30 Oct.
Castor	D. E. Amesbury	14691	1 April ..	2	8 Jan., 1903.
Castor	W. Bain	15764	15 Dec. ..	2	8 Jan., 1903.*
Cement, Portland	F. Oakden	14605	8 March ..	2	8 Jan., 1903.
Certificate for co-operative trading	W. Lorigan	15671	22 Nov. ..	102	11 Dec.*
Chaff-cutter and corn-crusher	J. O'Donoghue	14601	10 March ..	102	11 Dec.
Chair, Adjustable seat for	H. Salomo	15469	3 Oct. ..	83	16 Oct.*
Chair, Punkah for	F. W. Hayes	15568	30 Oct. ..	94	13 Nov.
Cheese, Branding	J. H. R. Taylor	14497	6 Feb. ..	94	13 Nov.
Chemical, Packing semi-solid	T. Baker	15699	26 Nov. ..	102	11 Dec.
Cigarette-box, Match-striker for	J. H. S. Brown	15663	18 Nov. ..	99	27 Nov.*
Cigarette-machine	American Tobacco Company	15603	5 Nov. ..	99	27 Nov.
Cigarette packing and wrapping machine	A. Godfrey	15540	22 Oct. ..	6	23 Jan., 1903.
Cistern, Flushing	T. Smith and G. Boardman	15694	27 Nov. ..	2	8 Jan., 1903.
Cleaner. (See Boot-cleaner, Knife-cleaner, Tobacco-pipe cleaner.)					
Cleaner for drill-roller	W. Gardiner	15605	3 Nov. ..	94	13 Nov.*
Cleaning corrosive matter from boilers, steamers, &c.	R. B. Wight	15526	14 Oct. ..	87	30 Oct.*
Cleaning and watering streets	H. Ashworth	15772	17 Dec. ..	2	8 Jan., 1903.*
Clip for broken umbrella-rib	T. Rice	15513	14 Oct. ..	94	13 Nov.
Clipping machine, Hair	H. Leadbeater, jun.	15757	11 Dec. ..	2	8 Jan., 1903.*
Clock, Electric	J. A. Carruthers	15646, 7	19 Nov. ..	99	27 Nov.
Clod crusher and pulveriser	F. Cooper	15738	24 Nov. ..	2	8 Jan., 1903.*
Closet, Earth	J. W. Henderson	15686	27 Nov. ..	102	11 Dec.*
Closet, Flushing water	W. M. Bartle	14625	14 March ..	2	8 Jan., 1903.
Closet, Siphon for water	J. Constable	15670	22 Nov. ..	102	11 Dec.
Closure. (See Jar-closure.)					
Clothes-wringer, Drainer for	J. Paterson and A. J. Pool	15474	1 Oct. ..	83	16 Oct.*
Clothing-grip	H. C. Peters	15502	10 Oct. ..	87	30 Oct.*
Cock, Automatic stop	R. S. Houghton	15730	8 Dec. ..	2	8 Jan., 1903.*
Coiler. (See Wire-coiler.)					
Coin-controlled mechanism for producing photograph	G. N. Pifer	15731	13 Dec., 1901	2	8 Jan., 1903.
Coke, Manufacture of	T. S. C. Lowe	15494	9 Oct. ..	87	30 Oct.*
Collars, Button-hole for	W. Beamish	15797	19 Dec. ..	2	8 Jan., 1903.*
Compounded steam-engine	R. P. Gibbons	15537	18 Oct. ..	87	30 Oct.*

ALPHABETICAL LIST OF INVENTIONS - continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Compressing air	A. A. Humphrey	15521	16 Oct.	87	30 Oct.*
Compressing forage, &c., into bales	P. J. Whitfield	15773	17 Dec.	102	11 Dec.
Compression, Elastic-fluid	H. Bland	15531	31 Oct.	2	8 Jan., 1903.
Concentrating washdirt containing gold	J. Thomson	15799	17 Dec.	94	13 Nov.
Concentrating washdirt containing gold	J. Thomson	15800	17 Dec.	2	8 Jan., 1903.*
Concentrator. (See Ore-concentrator.)				2	8 Jan., 1903.*
Concrete, Brick and hæmatite	R. Harrison	15673	24 Nov.	102	11 Dec.*
Condenser	C. A. Parsons	15601	5 Nov.	99	27 Nov.
Conductor, Electric	E. L. E. Barton	15804	23 Dec.	2	8 Jan., 1903.*
Confectionery, Moulding	P. A. Harkin	15665	21 Nov.	99	27 Nov.*
Controller for electric motor	J. P. Campbell	15785	18 Dec.	2	8 Jan., 1903.
Controlling admission of steam, Valve gear for	W. Mayne	15583	31 Oct.	94	13 Nov.
Controlling-gear for steering engines	J. McLean	15802	22 Dec.	2	8 Jan., 1903.*
Controlling steamboat-propeller	M. McCormick	15548	16 Oct.	87	30 Oct.*
Cooler and aerator, Milk	H. Pennington and M. T. West	14556	24 Feb.	99	27 Nov.
Cooler and filler, Milk	W. S. Davey	15539	22 Oct.	87	30 Oct.*
Cooler, Milk	D. Harris	15619	12 Nov.	99	27 Nov.
Cooling cream, &c., by forced air	W. M. Whishaw and W. E. Chamberlain	15825	31 Dec.	6	23 Jan., 1903.*
Co-operative trading certificate	W. Lorigan	15671	22 Nov.	102	11 Dec.*
Copper, Portable washing	J. Bates and W. G. Trudgeon	15692	27 Nov.	102	11 Dec.
Copying-ink for typewriter	W. Stewart	15530	15 Oct.	87	30 Oct.*
Cords to window-sashes, Securing	J. Armstrong	15449	26 Sept.	99	27 Nov.*
Corking bottle	W. D. R. McCurdie	15793	17 Dec.	2	8 Jan., 1903.*
Corn-crusher and chaff-utter	J. O'Donoghue	14601	10 March	102	11 Dec.
Corrugated iron, Nail for	C. F. Dunn	15774	17 Dec.	2	8 Jan., 1903.
Couch-head	A. W. Memory and F. G. Hind	14512	11 Feb.	99	27 Nov.
Coulter-centre	J. Cormack	15680	22 Nov.	102	11 Dec.
Course-recorder for ship	W. C. Forbes	15541	22 Oct.	87	30 Oct.
Cover. (See Horse-cover, Tire-cover.)					
Cover, Tire	C. D. Lightband	15495	7 Oct.	87	30 Oct.
Cover, Wheel-tire	F. S. Ornstien	15703	29 Nov.	102	11 Dec.*
Cow-bail	W. V. Hosking	15700	29 Nov.	6	23 Jan., 1903.*
Cow-rug	J. Burge	15624	13 Nov.	99	27 Nov.
Cramping-tool for building	W. J. Pallant	15734	9 Dec.	2	8 Jan., 1903.*
Cream, &c., Cooling	W. M. Whishaw and W. E. Chamberlain	15825	31 Dec.	6	23 Jan., 1903.*
Cricket, Table	H. Banks	15477	6 Oct.	87	30 Oct.
Crossing. (See Railway-crossing.)					
Cross-tie, Cutting railroad	C. Hege	15691	27 Nov.	102	11 Dec.
Crusher and pulveriser, Clod	F. Cooper	15738	24 Nov.	2	8 Jan., 1903.*
Cultivator, Spring-tine	F. Cooper	14677	22 March	2	8 Jan., 1903.
Curtain, Supporting window	V. H. L. Wood	15636	17 Nov.	99	27 Nov.*
Cutting hair or wool	Wolseley Sheep-shearing Machine Company, Limited	15644	19 Nov.	99	27 Nov.
Cutting, weighing, and parcelling butter	J. Robb	15713	3 Dec.	102	11 Dec.*
Cycle, Water	F. Winter	14973	24 Dec., 1901	83	16 Oct.
Cyclists' trouser-clip	W. Beamish	15668	19 Nov.	99	27 Nov.*
Dental suction-cell	E. A. Slack	14521	5 Feb.	94	13 Nov.
Destroying blight	W. J. Botting	15538	22 Oct.	87	30 Oct.*
Detritus- and sewage-treating tank	J. T. N. Anderson	15679	22 Nov.	102	11 Dec.*
Distance-indicator for trains	J. McKinnon	15816	29 Dec.	6	23 Jan., 1903.*
Distance-recorder for ships	W. C. Forbes	15541	22 Oct.	87	30 Oct.
Diseases, Medicated sweetmeat for chest, &c.	M. Bjornstad and J. Stacey	15808	20 Dec.	2	8 Jan., 1903.
Ditch-plough	J. Robertson	15588	29 Oct.	94	13 Nov.*
Door for freezing-room, &c.	J. R. Watt	15589	3 Nov.	99	27 Nov.*
Door-lock, Attaching handle of	T. B. Jacobsen	14652	20 March	102	11 Dec.
Draining-apparatus for clothes wringer	J. Paterson and A. J. Pool	15474	1 Oct.	83	16 Oct.*
Draught-controlling apparatus and spark-arrester	J. C. Bowring	15715	4 Dec.	2	8 Jan., 1903.*
Draught-promoter for locomotive	H. S. Wainwright	15617	7 Nov.	99	27 Nov.
Draught-regulator for grate	J. Mackie	15480	3 Oct.	87	30 Oct.*
Drawing-instrument. (See Set-square.)					
Dray, Flax	L. Coogan	15742	10 Dec.	2	8 Jan., 1903.*
Dray scoop	D. L. Cochrane	15676	19 Nov.	99	27 Nov.*
Dray scoop	D. L. Cochrane	15712	3 Dec.	102	11 Dec.*
Dredge-bucket	W. J. Evans and J. D. Campbell	15437	24 Sept.	102	11 Dec.
Dredge-bucket link, Rebushing	W. Beamish	15544	21 Oct.	87	30 Oct.*
Dredge-tumbler sleeve	J. Murison and C. L. Watt	14808	26 April	2	8 Jan., 1903.
Dredging appliance, Gold	F. Marisco	14409	10 Jan.	99	27 Nov.
Dredging, Gold	H. W. McLeod and G. A. Hurley	14401	6 Jan.	87	30 Oct.
Dredging machinery	J. Shepherd	15097	10 July	102	11 Dec.*
Dredging, Valve for suction	J. Shepherd	15503	10 Oct.	87	30 Oct.*
Drenching-bottle	N. G. McKay	14531	13 Feb.	99	27 Nov.
Drill	S. White	15796	19 Dec.	6	23 Jan., 1903.*
Drill	R. W. Ayson	15723	2 Dec.	2	8 Jan., 1903.
Drilling machine, Rock	C. W. Thompson	15771	17 Dec.	6	23 Jan., 1903.*
Drill-roller, Cleaner for	W. Gardiner	15605	3 Nov.	94	13 Nov.*
Drill, Seed, and fertiliser	H. V. McKay	14746	14 April	2	8 Jan., 1903.
Driving-belt tightener	A. S. Pike	15747	11 Dec.	2	8 Jan., 1903.*
Dropper to wire, Securing	J. Harris	15557	27 Oct.	94	13 Nov.*
Dropper for wire fencing	T. D. Cummins and W. T. Nuttall	15755	13 Dec.	2	8 Jan., 1903.

ALPHABETICAL LIST OF INVENTIONS - continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Dumb-bell, Converting ordinary into spring grip	J. Payne	15639	14 Nov.	99	27 Nov.*
Dust into fuel, Converting floor ..	E. R. Jennings and "Pyrojim" Syndicate, Limited	15653	19 Nov.	99	27 Nov.*
Dustless sweeping-brush	J. P. Wiens	15515	16 Oct.	87	30 Oct.
Dynamo electrical machinery	J. P. Campbell	15822	30 Dec.	6	23 Jan., 1903.
Earth-auger	W. L. Iwan and J. H. Iwan	15790	16 Dec.	2	8 Jan., 1903.
Elastic-fluid compression	H. Bland	15581	31 Oct.	94	13 Nov.
Electric arc lamp	J. P. Campbell	15786	18 Dec.	2	8 Jan., 1903.
Electrical machinery, Dynamo	J. P. Campbell	15822	30 Dec.	6	23 Jan., 1903.
Electric belt for medical purposes	G. W. Basley	15001	11 June	88	16 Oct.
Electric conductor	E. L'E. Barton	15804	23 Dec.	2	8 Jan., 1903.*
Electric fan	W. E. Coleman	15602	5 Nov.	94	13 Nov.
Electric ignition for oil-engine	F. Henderson	15525	15 Oct.	87	30 Oct.*
Electric motor, Controller for.. ..	J. P. Campbell	15785	18 Dec.	2	8 Jan., 1903.
Electric railway	W. E. Hughes	15781	18 Dec.	2	8 Jan., 1903.
Electric-traction system, Surface-contact	The Dolter Electric Traction, Limited	15768	15 Dec.	2	8 Jan., 1903.
Electric-tramcar brake	J. T. Hunter	15579	30 Oct.	94	13 Nov.
Engine-valve gear	W. Mayne	15583	31 Oct.	94	13 Nov.
Escape. (See Fire-escape.)					
Excavating, &c., gravel	H. Quertier	15501	10 Oct.	87	30 Oct.*
Excavating, &c., gravel	H. Quertier	15586	31 Oct.	94	13 Nov.*
Exhibition purposes, Stand for	T. Mutton and H. E. Hupton	15613	4 Nov.	99	27 Nov.
Explosive compounds of shell, Carrying, &c.	H. R. Walker	15693	27 Nov.	102	11 Dec.*
Extension table	L. Kortlang, sen., and A. Kortlang	15775	17 Dec.	2	8 Jan., 1903.*
Extinguisher. (See Lamp-extinguisher.)					
Extract. (See Meat extract.)					
Extracting zinc, &c., sulphides from their ores	E. S. Baldwin and H. H. Raymond	15687	27 Nov.	102	11 Dec.*
Fan, Electric	W. E. Coleman	15602	5 Nov.	94	13 Nov.
Fastener. (See Boot-fastener, Hat-fastener, Horse-cover fastener, Sack-mouth fastener, Umbrella-fastener, Window-sash fastener.)					
Fastening for glass show-case, &c.	J. Mead	15559	23 Oct.	94	13 Nov.*
Fastening tailboard of cart	H. Anstice	15754	12 Dec.	2	8 Jan., 1903.*
Feed-water heater and distributor	A. Dunbar	15157	24 July	102	11 Dec.
Fertiliser-drill	H. V. McKay	14746	14 April	2	8 Jan., 1903.
Fertiliser, Sowing seed with	P. F. A. Robertson and J. Robertson	15580	16 Oct.	87	30 Oct.*
Fibre from New Zealand flax, Spinning	I. Jacob and W. Pritzkow	15711	29 Nov.	2	8 Jan., 1903.
Fibre-scouring machinery	F. L. Whitney	15490	9 Oct.	87	30 Oct.
Figure for advertising purposes	T. Mutton and H. E. Hupton	15613	4 Nov.	99	27 Nov.
Filter and butter-cooler	A. Lyell	14960	6 June	94	13 Nov.
Filter-press, High-pressure tap for	R. F. Bradshaw and W. E. Harding	15769	17 Dec.	2	8 Jan., 1903.
Filter, Water	J. T. N. Anderson	15756	11 Dec.	..	..
Fire-escape	A. E. Cleaver	15532	18 Oct.	87	30 Oct.*
Fire-heated brand for cattle, Continuously	A. McLeod	15512	9 Oct.	87	30 Oct.*
Fire-screen, Force-draught	J. H. Pledger	14035	21 Sept., 1901	88	16 Oct.
Fish-plate, Preventing nuts loosening on..	R. E. Pennington and J. Bellett..	15623	13 Nov.	99	27 Nov.*
Flax-dray	L. Coogan	15742	10 Dec.	2	8 Jan., 1903.*
Flax-drum, Selvege-stripping	W. Fairweather, J. Fairweather, and W. Fairweather, jun.	15795	18 Dec.	2	8 Jan., 1903.*
Flax-fibre to scutching-machine, Feeding	W. B. Arlidge	14923	26 May	63	16 Oct.
Flax, Scutching-machine for	A. E. Reeves	15710	29 Nov.	102	11 Dec.*
Flax, Spinning fibre from New Zealand	I. Jacob and W. Pritzkow	15711	29 Nov.	2	8 Jan., 1903.
Float in body of water as motor	T. W. Mayson	15685	22 Nov.	102	11 Dec.*
Fluid compression, Elastic	H. Bland	15581	31 Oct.	94	13 Nov.
Fluid-engine, Rotary	Cooley Development Company	15784	18 Dec.	2	8 Jan., 1903.
Flushing-cistern	T. Smith and G. Boardman	15694	27 Nov.	2	8 Jan., 1903.
Flushing-tank, Siphon	A. Burt, jun.	15562	25 Oct.	94	13 Nov.*
Flushing water-closet	W. M. Bartle	14625	14 March	2	8 Jan., 1903.
Flying-machine	R. Whittingham	15787	18 Dec.	2	8 Jan., 1903.*
Food-plate	J. D. Smith	15612	4 Nov.	99	27 Nov.*
Forage, &c., into bales, Compressing	P. J. Whitfield	15773	17 Dec.	2	8 Jan., 1903.
Foster-mother and incubator	C. L. Bridges	15476	6 Oct.	87	30 Oct.*
Free wheel for velocipedes, &c.	J. H. Braithwaite	15770	17 Dec.	2	8 Jan., 1903.
Freezing-room, Door for	J. R. Watt	15589	3 Nov.	99	27 Nov.*
Fruit-trees, Destroying blight on	W. J. Botting	15588	22 Oct.	87	30 Oct.*
Frying-pan, Enclosing	W. Kibblewhite	15607	6 Nov.	94	13 Nov.*
Fuel, Artificial	T. H. Brown	14400	6 Jan.	83	16 Oct.
Fuel briquettes	International Fuel Company	15576	30 Oct.	94	13 Nov.
Fuel, Converting floor-dust into	E. R. Jennings and "Pyrojim" Syndicate, Limited	15653	19 Nov.	99	27 Nov.*
Fumes from ore, Producing and depositing	The Metallic Compounds Separation Syndicate, Limited	15572	30 Oct.	6	23 Jan., 1903.
Furnace, Boiler	J. Chambers and Son, Limited	14338	16 Dec., 1901	102	11 Dec.
Furnace, Ore-roasting	W. A. Maddern	15516	16 Oct.	87	30 Oct.
Furrow-opener for seeding-machine	Bickford and Huffman Company	15683	26 Nov.	102	11 Dec.

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Galley. (See Printers' galley.)					
Game. (See Table-cricket.)					
Game apparatus	S. White	15629	11 Nov. ..	99	27 Nov.*
Game, New table	W. Dawson	15458	1 Oct. ..	83	16 Oct.*
Gas-burner	Inverted Incandescent Gas-lamp Syndicate, Limited	14612	13 March ..	87	13 Oct.
Gas-burner, Incandescent	Flameless Gaslight Company, Limited	15578	30 Oct. ..	94	13 Nov.
Gas, Carburetted water	H. W. G. Henderson	14654	20 March ..	83	16 Oct.
Gas-engine and gas-producer	M. Taylor	15748	11 Dec. ..	2	8 Jan., 1903.
Gas-engine, Electric ignition for	F. Henderson	15525	15 Oct. ..	87	30 Oct.*
Gas from volatile hydrocarbon, Inflammable	G. H. Clapham	15745	11 Dec. ..	2	8 Jan., 1903.*
Gas, Generating acetylene	W. R. Hyde	15606	4 Nov. ..	94	13 Nov.
Gas, Illuminating	W. H. Gaze	15706	2 Dec. ..	102	11 Dec.
Gas-lamp, Reflector for incandescent	R. Lockhead	15709	29 Nov. ..	102	11 Dec.*
Gas lighting and heating	W. H. Gaze	15565	29 Oct. ..	94	13 Nov.*
Gas-lighting. (See Incandescence gaslighting)					
Gas-pressure regulator	F. Baertl	15645	19 Nov. ..	99	27 Nov.
Gate, Automatically operating	O. Hansen	15483	4 Oct. ..	87	30 Oct.*
Gathering and shaping glass	Toledo Glass Company	15522	16 Oct. ..	87	30 Oct.
Gauge for steam-boiler, Water	A. B. Masters	15585	31 Oct. ..	94	13 Nov.*
Gelatine, Manufacture of	W. Cormack and J. G. F. Lawson	15767	17 Dec. ..		
Generator. (See Acetylene-generator.)					
Glass article, Hollow	H. Severin	15690	27 Nov. ..	102	11 Dec.
Glass, Gathering and shaping	Toledo Glass Company	15522	16 Oct. ..	87	30 Oct.
Glazing corrugated iron	A. Jewiss and G. Inglis	15637	15 Nov. ..	99	27 Nov.
Gold-dredging	F. Marisco	14409	10 Jan. ..	99	27 Nov.
Gold-dredging	H. N. McLeod and G. A. Hurley	14401	6 Jan. ..	87	30 Oct.
Gold, Raising, from crevices in rock below water	J. D. Coomber	15529	14 Oct. ..	87	30 Oct.*
Gold-saving	H. G. Hankin	14564	27 Feb. ..	83	16 Oct.
Gold-saving screen	F. J. Foot and C. J. Swan	15563	25 Oct. ..	94	13 Nov.
Gold-saving table	J. Ramsay	15656	17 Nov. ..	99	27 Nov.*
Gold-saving table	J. Ramsay	15726	5 Dec. ..	2	8 Jan., 1903.*
Gold, Treating tailings for	M. Garguevich	15468	3 Oct. ..	83	16 Oct.*
Governor, Marine	W. G. Hood, R. Williams, and J. Reilly	15633	15 Nov. ..	99	27 Nov.*
Grain, Poisoning	J. W. Arthur	15549	16 Oct. ..	87	30 Oct.*
Grain-reel for reaping-machine	J. Kelly	15667	19 Nov. ..	99	27 Nov.*
Grate, Draught-regulator for	J. Mackie	15480	3 Oct. ..	87	30 Oct.*
Gravel, Excavating, &c.	H. Quertier	15501	10 Oct. ..	87	30 Oct.*
Gravel, Excavating, &c.	H. Quertier	15586	31 Oct. ..	94	13 Nov.*
Grease and oil separator	F. Moore	15762	12 Dec. ..	2	8 Jan., 1903.
Grip. (See Clothing-grip.)					
Grip-bracket and rowlock	D. Urquhart	15457	1 Oct. ..	83	16 Oct.*
Grubber. (See Stump and root grubber.)					
Gun, Alarm	A. C. Whitney	15627	13 Nov. ..	2	8 Jan., 1903.*
Gun, Magazine	J. Hylard and E. G. H. Bingham	14405	8 Jan. ..	87	30 Oct.
Hair. (See Shearing hair.)					
Hair and hat pin and fastener	W. H. Fahey and W. Wardrop	14828	2 May ..	2	8 Jan., 1903.
Hair-clipping machine	H. Leadbeater, jun.	15757	11 Dec. ..	2	8 Jan., 1903.*
Hair, Preparation for	J. F. Donnelly	15531	18 Oct. ..	87	30 Oct.*
Handle grip, Bicycle	T. R. Porter	15674	24 Nov. ..	102	11 Dec.*
Handle of door-lock, Attaching	T. B. Jacobsen	14652	20 March ..	102	11 Dec.
Handle of knife	J. Durey	15645	25 Nov. ..	102	11 Dec.*
Harness for horses	J. T. Murphy	15658	20 Nov. ..	99	27 Nov.*
Harvester, Sheaf-binding	I. Trolley	15600	5 Nov. ..	94	13 Nov.*
Hat-fastener	W. H. Fahey	15628	11 Nov. ..	99	27 Nov.*
Hat pins and fastening	W. H. Fahey and W. Wardrop	14828	2 May ..	2	8 Jan., 1903.
Hat, Securing, to wearer's head	W. A. Thomsen	15461	1 Oct. ..	83	16 Oct.*
Heat from lamp, Utilising waste	E. J. Kee	15517	13 Oct. ..	87	30 Oct.*
Heater and burner	A. McLeod	15498	6 Oct. ..	87	30 Oct.*
Heater and distributor, Feed-water	A. Dunbar	15157	24 July ..	102	11 Dec.
Heater, Water	C. H. Verity	15777	30 Dec. ..		
Heater, Water	R. L. H. Murray	15536	10 Oct. ..	9	5 Feb., 1903.
Heating, Gas for	W. H. Gaze	15565	29 Oct. ..	94	13 Nov.*
Heating water by steam	H. Baux	15524	14 Oct. ..	87	30 Oct.*
Heel, Resilient leather	C. D. Lightband	15622	7 Nov. ..	99	27 Nov.*
Hinges, Face pivot	T. Roberts	15763	16 Dec. ..	2	8 Jan., 1903.*
Hold-all or kit-valise	D. W. Healy	15482	7 Oct. ..	87	30 Oct.
Hollow glass article	H. Severin	15690	27 Nov. ..	102	11 Dec.
Hook, Buckle attachment to spring	A. Douglas	14454	21 Jan. ..	83	16 Oct.
Horse-cover fastening	T. Anderson and W. Nichols	15766	15 Dec. ..	6	23 Jan., 1903.
Horse-cover, Securing front of	J. Murphy	15500	10 Oct. ..	87	30 Oct.*
Horse-race-starting machine	H. C. Stortenbeker and S. J. Cowan	15716	4 Dec. ..	102	11 Dec.
Horse-rug	J. Burge	15624	13 Nov. ..	99	27 Nov.
Horse-rugs, Securing	J. Ellis	15811	24 Dec. ..	2	8 Jan., 1903.*
Horse-stopper	T. Firth	15758	15 Dec. ..	2	8 Jan., 1903.
Hurdle, Racing	H. P. Knutzen	15805	20 Dec. ..	2	8 Jan., 1903.*
Hydrocarbon, Gas from	G. H. Clapham	15745	11 Dec. ..	2	8 Jan., 1903.*
Hydrocarbon-vapour burner, Liquid	E. Waters, jun.	15718	4 Dec. ..	102	11 Dec.

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Illuminating-gas	W. H. Gaze	15565	29 Oct. ..	94	13 Nov.*
Illuminating-gas	W. H. Gaze	15706	2 Dec. ..	102	11 Dec.
Incandescence gas lighting	Flameless Gaslight Company, Limited	15124	17 July ..	87	30 Oct.
Incandescent gas-burner	Flameless Gaslight Company, Limited	15578	30 Oct. ..	94	13 Nov.
Incandescent gas-lamp, Reflector for	R. Lockhead	15709	29 Nov. ..	102	11 Dec.*
Incubator and foster-mother	C. L. Bridge	15476	6 Oct. ..	87	30 Oct.*
Indicating and calculating apparatus	J. C. McBride	15510	9 Oct. ..	87	30 Oct.*
Indicator for trains, Distance	J. McKinnon	15816	29 Dec. ..	6	23 Jan., 1903.*
Ink. (See Copying-ink.)					
Invalid-table	F. A. Miller	14600	10 March ..	102	11 Dec.
Ironing-board, Stand for	W. Swinnerton	15558	24 Oct. ..	102	11 Dec.
Ironsand, &c., Reduction of	D. R. S. Galbraith and W. Steuart	15661	18 Nov. ..	99	27 Nov.*
Ironsand, &c., Reduction of	D. R. S. Galbraith and W. Steuart	15662	18 Nov. ..	99	27 Nov.*
Jack, Lever lifting	W. McKenzie and J. R. Bell	15760	15 Dec. ..	2	8 Jan., 1903.
Jacket, Inflatable life-saving	G. Nuttall	15761	15 Dec. ..	2	8 Jan., 1903.
Jar-closure	J. A. Landsberger	15789	10 Dec. ..	2	8 Jan., 1903.
Joint for railway-crossing, Pivot blade	W. Watts	15493	9 Oct. ..	87	30 Oct.*
Kauri-gum dirt, Utilising deposits of	D. R. S. Galbraith	14492	31 Jan. ..	2	8 Jan., 1903.
Kettle, Bottom and sides for	R. P. Gibbons	15632	11 Nov. ..	99	27 Nov.*
Kit-valise or hold-all	D. W. Healy	15482	7 Oct. ..	87	30 Oct.*
Kneading and mixing machine	E. F. W. Wieda	15746	11 Dec. ..	2	8 Jan., 1903.
Knife-cleaner	J. A. Boyd	15729	8 Dec. ..	2	8 Jan., 1903.*
Knife-handle	J. Durey	15695	25 Nov. ..	102	11 Dec.*
Ladder	E. Langford	15596	3 Nov. ..	94	13 Nov.*
Lamp, Electric arc	J. P. Campbell	15786	18 Dec. ..	2	8 Jan., 1903.
Lamp-extinguisher	T. McDonough	15496	9 Oct. ..	87	30 Oct.*
Lamp, Piano bracket	L. Fagan	15472	4 Oct. ..	83	16 Oct.*
Lamp, Utilising waste heat from	E. J. Kee	15517	13 Oct. ..	87	30 Oct.
Lamp-wick	D. Gascoyne	15743	10 Dec. ..	2	8 Jan., 1903.*
Lavatory requisite	S. McDougall	15807	22 Dec. ..	2	8 Jan., 1903.*
Lawn-weeding tool	W. Harrison	15714	3 Dec. ..	102	11 Dec.*
Lead. (See White-lead.)					
Lead-sulphide from their ores, Extracting	E. S. Baldwin and H. H. Rayward	15687	27 Nov. ..	102	11 Dec.
Leather and rubber composite	C. D. Lightband and F. A. Webster	15721	3 Dec. ..	102	11 Dec.*
Lever lifting-jack	W. McKenzie and J. R. Bell	15760	15 Dec. ..	2	8 Jan., 1903.
Lid for saucepan	S. S. Stretton	15666	21 Nov. ..	99	27 Nov.*
Life-preserver, Marine	J. Ewing, jun.	15809	24 Dec. ..	2	8 Jan., 1903.
Life-saving jacket, Inflatable	G. Nuttall	15761	15 Dec. ..	2	8 Jan., 1903.*
Life-saving raft	G. Croll	15672	22 Nov. ..	102	11 Dec.
Lighting, Incandescence gas	Flameless Gaslight Company, Limited	15124	17 July ..	87	30 Oct.
Line, Carrying running over standing	W. Beamish	15630	11 Nov. ..	99	27 Nov.*
Lining for tunnel, &c.	G. H. Dunlop	15819	30 Dec. ..	6	23 Jan., 1903.
Lining of vessel for metallurgical work	G. Westinghouse	15479	7 Oct. ..	87	30 Oct.
Linotype machine	H. McGowan	15717	4 Dec. ..	102	11 Dec.*
Liquid, Siphon pump for drawing off	W. H. Boyens	14396	3 Jan. ..	94	13 Nov.
Loading and unloading vessels	G. H. Airey	15609	5 Nov. ..	99	27 Nov.
Loading photographic apparatus	G. N. Pifer	15527	25 Oct., 1901†	2	8 Jan., 1903.
Lock. (See Seal lock, Vehicle-wheel lock.)					
Lock, Automatic window	J. H. S. Brown	15696	25 Nov. ..	102	11 Dec.
Lock, Nut	G. H. Bigelow	14845	1 May ..	83	16 Oct.*
Lock-nut plate	R. E. Pennington and J. Bellett	15623	13 Nov. ..	99	27 Nov.*
Lock, Vehicle-wheel	J. R. Jewell and W. H. Jewell	14645	20 March ..	2	8 Jan., 1903.
Locking-bar joint of pipe	G. J. Hoskins	15751	9 Dec. ..	2	8 Jan., 1903.
Locking brake of vehicles	F. Matthews	15792	19 Dec. ..	2	8 Jan., 1903.*
Logs down a river, Rafting	A. M. Grainger	15465	2 Oct. ..	83	16 Oct.*
Magazine gun	J. Hylard and E. G. H. Bingham	14405	8 Jan. ..	87	30 Oct.
Mail-bag, Seal lock for strap of	J. Channon	15678	25 Nov. ..	102	11 Dec.
Manure-sower	R. W. Ayson	15723	2 Dec. ..	2	8 Jan., 1903.*
Marine governor	W. G. Hood, R. Williams, and J. Reilly	15633	15 Nov. ..	99	27 Nov.*
Marine life-preserver	J. Ewing, jun.	15809	24 Dec. ..	2	8 Jan., 1903.
Marking survey-pegs, &c.	W. D. R. McCurdie	15794	17 Dec. ..	2	8 Jan., 1903.*
Match-striker for cigarette-box	J. H. S. Brown	15663	18 Nov. ..	99	27 Nov.*
Meat, Soluble extract of	A. G. Kidston-Hunter	15798	19 Dec. ..	2	8 Jan., 1903.*
Medicated sweetmeat for consumption, &c.	M. Bjornstad and J. Stacey	15808	20 Dec. ..	2	8 Jan., 1903.
Metal goods, Tinning or retinning	H. Hodgson	14383	30 Dec., 1901	83	16 Oct.
Metallurgical work, Lining of vessels for	G. Westinghouse	15479	7 Oct. ..	87	30 Oct.
Milk cooler and aerator	H. Pennington and M. T. West	14556	24 Feb. ..	99	27 Nov.
Milk cooler and filler	W. S. Davey	15539	22 Oct. ..	87	30 Oct.*
Milk cooler, aerator, and strainer	D. Harris	15619	12 Nov. ..	99	27 Nov.
Milk into cans, Delivering	W. Barton	15460	1 Oct. ..	83	16 Oct.*
Milk, Mixing	A. Gaulin	15750	11 Dec. ..	2	8 Jan., 1903.
Milk, Straining	G. Adcock	15506	13 Oct. ..	6	23 Jan., 1903.
Milking-apparatus	A. Gillies	15652	19 Nov. ..	99	27 Nov.
Milking-machine	W. E. Hughes	15564	29 Oct. ..	94	13 Nov.*
Milking-machine	A. Gillies and E. J. Kelly	15597, 8	5 Nov. ..	94	13 Nov.*
Milking-machine	D. R. Rosa	15626	13 Nov. ..	99	27 Nov.*
Mixing-machine	E. F. W. Wieda	15746	11 Dec. ..	2	8 Jan., 1903.

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Minnow, Artificial	C. H. Osmond	14684	26 March ..	83	16 Oct.
Motor. (See Electric motor, Water-motor.)					
Motor-car, Free wheel for	J. H. Braithwaite	15770	17 Dec. ..	2	8 Jan., 1903.
Motor, Reciprocatory	F. T. H. M. J. Marcard	15582	31 Oct. ..	94	13 Nov.
Motor, Using float in water	T. W. Mayson	15635	22 Nov. ..	102	11 Dec.*
Moulding confectionery	P. A. Hankin	15665	21 Nov. ..	99	27 Nov.*
Moulding soap	K. Schnetzer	15727	3 Dec. ..	..	..
Moustache-guard	A. Rowntree	14624	11 March ..	102	11 Dec.
Motion-transmitting mechanism, Bowden	G. W. Basley	15724	1 Dec. ..	2	8 Jan., 1903.
Multitubular water-column boiler	F. F., L. B., A. C., and H. W. Coulsell	15677	25 Nov. ..	102	11 Dec.*
Nail for boot	F. Jones	15618	12 Nov. ..	99	27 Nov.*
Nail for corrugated iron	C. F. Dunn	15774	17 Dec. ..	2	8 Jan., 1903.
Nail, spike, bolt, &c.	O. M. J. Olsen	15518	13 Oct. ..	87	30 Oct.*
Net, Table-tennis	W. N. Smith	15608	6 Nov. ..	..	..
Newspaper-box, Weatherproof	J. Sigley	15236	2 Aug. ..	94	13 Nov.
Nightsoil receptacle	H. Ham	15648	19 Nov. ..	99	27 Nov.*
Non-refillable bottle	T. S. Philpott	15475	6 Oct. ..	87	30 Oct.
Nozzle-appliance for cleaning grooves of tramways, &c.	F. A. Jones, O. Bowman, G. McMullen, and A. Rankin	14863	9 May ..	78	2 Oct.
Nurse for children, Mechanical	J. M. Moison	15484	6 Oct. ..	87	30 Oct.*
Nut-lock	G. H. Bigelow	14845	1 May ..	83	16 Oct.
Oil and grease separator	F. Moore	15762	12 Dec. ..	2	8 Jan., 1903.
Oil-feeding can	W. Beamish	15631	11 Nov. ..	99	27 Nov.*
Oil-fuel boiler	W. S. Kay	15489	3 Oct. ..	87	30 Oct.*
Oil-engines, Discharging waste products of	R. Arthur	14669	22 March ..	2	8 Jan., 1903.
Oil-engine, Electric ignition for	F. Henderson	15525	15 Oct. ..	87	30 Oct.*
Oiling axle of vehicle	T. S. Philpott	14609	12 March ..	2	8 Jan., 1903.
Oiling axles of vehicles	R. L. Suttie	15818	30 Dec. ..	6	23 Jan., 1903.*
Opening oysters	J. Winepress	15467	2 Oct. ..	83	16 Oct.
Opening oysters	M. J. Cherrie	15705	2 Dec. ..	102	11 Dec.*
Opening soda-water, &c., bottles	S. White	15697	26 Nov. ..	102	11 Dec.*
Ore, Agglomerating finely divided	A. Malden and W. J. Malden	15514	16 Oct. ..	87	30 Oct.*
Ore-concentrator, &c.	J. R. Harrison	15462	1 Oct. ..	83	16 Oct.*
Ore-concentrator	G. W. Wright	15593	31 Oct. ..	94	13 Nov.*
Ore, Producing and depositing fumes from	Metallic Compounds Separation Syndicate, Limited	15572	30 Oct. ..	6	23 Jan., 1903.
Ore-roasting furnace	W. A. Maddern	15516	16 Oct. ..	87	30 Oct.
Ore, Treating refractory	W. E. Hughes	15780	18 Dec. ..	2	8 Jan., 1903.*
Ottoman-scroll	A. W. Memory and F. G. Hind	14512	11 Feb. ..	99	27 Nov.
Oysters, Opening	J. Winepress	15467	2 Oct. ..	83	16 Oct.
Oysters, Opening	M. J. Cherrie	15705	2 Dec. ..	102	11 Dec.*
Packing-cases applied to roofing, &c.	E. L. Pease	15740	10 Dec. ..	2	8 Jan., 1903.*
Packing semi-solid chemicals in small quantities	Baker and Rouse Proprietary, Limited	15699	26 Nov. ..	102	11 Dec.
Paper, Binding sheets of	J. T. Steele	15741	10 Dec. ..	2	8 Jan., 1903.
Parcel-grip, Advertising	A. H. Brownley	15570	30 Oct. ..	2	8 Jan., 1903.
Parcel-carrier system, Pneumatic	Lamson Store-service Company, Limited	15573	39 Oct. ..	94	13 Nov.
Parcel-carrier, Wire-track	Lamson Store-service Company, Limited	15574	30 Oct. ..	94	13 Nov.
Parlour billiards	W. McLean	15649	19 Nov. ..	99	27 Nov.*
Penholder, Finger-guide for	D. McKenzie	15817	30 Dec. ..	6	23 Jan., 1903.*
Perambulator	L. Adamson	15478	6 Oct. ..	87	30 Oct.
Perforated brick	J. Clark	15459	1 Oct. ..	83	16 Oct.*
Perforating tape for telegraph instrument	J. Gell	14097	5 Oct., 1901	83	16 Oct.
Perishable products, Preserving	D. R. Jones and P. A. Larritt	14586	6 March ..	102	11 Dec.
Photographic apparatus, Loading	G. N. Pifer	15527	25 Oct., 1901	2	8 Jan., 1903.
Photographic likeness, Mechanism for automatically producing a	G. N. Pifer	15731	13 Dec., 1901	2	8 Jan., 1903.*
Photographic plate	G. N. Pifer	15528	25 Oct., 1901	2	8 Jan., 1903.*
Piano bracket lamp	L. Fagan	15472	4 Oct. ..	83	16 Oct.*
Pipe, Closing locking-bar joint of Planter. (See Potato-planter.)	G. J. Hoskins	15751	9 Dec. ..	2	8 Jan., 1903.
Plate. (See Food-plate, Photographic plate.)					
Plate for separating fine from coarse wash-dirt	J. Thomson	15801	18 Dec. ..	2	8 Jan., 1903.*
Plough attachment	H. G. Williams	15466	2 Oct. ..	83	16 Oct.*
Plough, Ditch	J. Robertson	15588	29 Oct. ..	94	13 Nov.*
Plough for breaking subsoil, Attachment to Plough, Road	H. Coe	15642	17 Nov. ..	99	27 Nov.*
Plug-brick and hematite concrete	E. H. Grey	14738	12 April ..	94	13 Nov.
Pneumatic cash and parcel carrier system	R. Harrison	15673	24 Nov. ..	102	11 Dec.*
	Lamson Store-service Company, Limited	15573	3 Oct. ..	94	13 Nov.
Pneumatic tire	C. Ray	14395	3 Jan. ..	83	16 Oct.
Pneumatic tire	J. R. Brunt and R. C. Pitt	14408	8 Jan. ..	83	16 Oct.
Pneumatic tire, Covering for	C. D. Lightband	15495	7 Oct. ..	87	30 Oct.*
Pneumatic-tire covering	G. F. Brown	15615	7 Nov. ..	99	27 Nov.*
Poisoning grain	J. W. Arthur	15549	16 Oct. ..	87	30 Oct.*
Poisoning rabbits	T. Robertson	15778	18 Dec. ..	2	8 Jan., 1903.

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Polishing-machine. (See Boot-polishing machine.)					
Portable building	D. Brummer	15651	19 Nov.	..	..
Portland cement	F. Oakden	14605	8 March	2	8 Jan., 1903.
Potato-carrier	E. Walker	15571	30 Oct.	..	..
Potato-planter	F. Cooper	15737	24 Nov.	2	8 Jan., 1903.*
Poultry-brooder	S. R. Johnson	15492	9 Oct.	87	30 Oct.*
Power from waves of sea	C. P. de Lajard	15654	19 Nov.	99	27 Nov.
Preserving perishable products	D. R. Jones and P. A. Larritt	14586	6 March	102	11 Dec.
Preserving skin, Preparation for	K. Cooper	15520	15 Oct.	87	30 Oct.*
Printer, Butter	W. Riddell	14473	23 Jan.	87	30 Oct.
Printers' galley and chase	F. P. Wilson	15635	17 Nov.	99	27 Nov.
Printing-machine	T. Cossar	15575	30 Oct.	..	..
Printing-machine for butter, &c.	R. Boxall and A. C. Robinson	15543	23 Oct.	99	27 Nov.*
Printing-roller, Removable	J. Anderson	15486	4 Oct.	87	30 Oct.
Printing-surface, Production of	W. Thomas	14607	10 March	102	11 Dec.
Propeller, Auxiliary	R. P. Gibbons	15640	13 Nov.	99	27 Nov.*
Propeller, Controlling steam-boat	M. McCormick	15548	16 Oct.	87	30 Oct.*
Propeller-hood attachment	M. W. Lane	15560	28 Oct.	94	13 Nov.
Pulverising-apparatus	W. A. Kōneman	15577	30 Oct.	94	13 Nov.
Pump for drawing off liquid	W. H. Boyens	14396	3 Jan.	94	13 Nov.
Pump, Rotary	P. R. Williamson	14263	21 Nov., 1901	102	11 Dec.
Pumping smoke or fumes	D. Hanna	15643	17 Nov.	99	27 Nov.*
Punkah for chair, &c.	F. W. Hayes	15568	30 Oct.	94	13 Nov.
Rabbits, Poisoning	T. Robertson	15778	18 Dec.	2	8 Jan., 1903.
Rabbit-trap	C. W. Constable	15675	19 Nov.	102	11 Dec.*
Race-starting-machine, Horse	H. C. Stortenbeker and S. J. Cowan	15716	4 Dec.	102	11 Dec.
Racing-hurdle	H. P. Knutzen	15805	20 Dec.	2	8 Jan., 1903.*
Raft, Life-saving	G. Croll	15672	22 Nov.	102	11 Dec.*
Rafting logs, &c., down a river	A. M. Grainger	15465	2 Oct.	83	16 Oct.*
Rail-cleaner. (See Tram-rail cleaner.)					
Railroad cross-tie, Cutting	C. A. Hege	15691	27 Nov.	102	11 Dec.
Railway. (See Cash-carrier railway, Electric railway.)					
Railway air-brake, Adjusting	R. E. Robertson	15708	2 Dec.	102	11 Dec.*
Railway brake	S. Cheney, jun.	15566	29 Oct.	94	13 Nov.*
Railway-crossing, Pivot blade-joint for	W. Watts	15493	9 Oct.	87	30 Oct.*
Rain-water, Collecting	L. Adamson	15657	20 Nov.	99	27 Nov.
Raising gold from crevice in rock below water	J. D. Coomber	15529	14 Oct.	87	30 Oct.*
Rat-trap	H. Dixon	15812	23 Dec.	6	23 Jan., 1903.
Rat-trap	H. Dixon	15813	23 Dec.	6	23 Jan., 1903.
Razor-strop	R. B. Jackson and J. Sharp, jun.	15732	9 Dec.	2	8 Jan., 1903.
Reaping-machine, Grain-reel for	J. Kelly	15667	19 Nov.	99	27 Nov.*
Receiver for wireless telegraphy	G. Marconi and Marconi's Wireless Telegraph Company, Limited	15689	3 May	102	11 Dec.
Reciprocatory motor	F. T. H. M. J. Marcard	15582	31 Oct.	94	13 Nov.
Recorder for ship, Distance and course	W. C. Forbes	15541	22 Oct.	87	30 Oct.
Reduction of ironsand, &c.	D. R. S. Galbraith and W. Steuart	15661	18 Nov.	99	27 Nov.*
Reduction of ironsand	D. R. S. Galbraith and W. Steuart	15662	18 Nov.	99	27 Nov.*
Reflector for incandescent gas-lamp	R. Lockhead	15709	29 Nov.	102	11 Dec.*
Refractory ores, Treating	W. E. Hughes	15780	18 Dec.	2	8 Jan., 1903.*
Registering-machine, &c.	H. Droutledge	15814	22 Dec.	6	23 Jan., 1903.*
Regulating intermittent squeeze and feed for closing joints of pipes	G. J. Hoskins	15751	9 Dec.	2	8 Jan., 1903.
Regulator. (See Draught-regulator, Gas-pressure regulator.)					
Relief-valve, Automatic	P. E. Sagnol and T. Tonks	15719	4 Dec.	102	11 Dec.*
Removing tire of bicycle	S. Nicolson	15659	20 Nov.	2	8 Jan., 1903.*
Renewing window-cords	A. Smith and R. Ewing	15499	10 Oct.	..	..
Repairing rib of umbrella, Clip for	T. Rice	15513	14 Oct.	94	13 Nov.
Resilient leather heel	C. D. Lightband	15621	7 Nov.	99	27 Nov.*
Restoring overworked sponge	R. Todd	15470	3 Oct.	83	16 Oct.*
Reversing rotation of shafting	W. A. Gamman	15684	26 Nov.	102	11 Dec.
Rims of wheels, Tightening	J. Winters	15584	31 Oct.	94	13 Nov.
River, Rafting logs down a	A. M. Grainger	15465	2 Oct.	83	16 Oct.*
Road-plough	E. H. Grey	14738	12 April	94	13 Nov.
Roasting. (See Ore-roasting.)					
Rock-drilling machine	C. W. Thompson	15771	17 Dec.	..	..
Roller. (See Printing-roller.)					
Roller, Cleaner for drill	W. Gardiner	15605	3 Nov.	94	13 Nov.*
Roofing, Structural arrangement applicable to	E. L. Pease	15740	10 Dec.	2	8 Jan., 1903.
Root-grubbing machine	S. H. Manners	15759	15 Dec.	2	8 Jan., 1903.
Rope-tightener	A. S. Pike	15747	11 Dec.	2	8 Jan., 1903.*
Rotary engine	J. L. McMillan	15610	6 Nov.	99	27 Nov.
Rotary fluid-engine	Cooley Development Company	15784	18 Dec.	2	8 Jan., 1903.
Rotary pump	P. R. Williamson	14263	21 Nov., 1901	102	11 Dec.
Rotary steam-engine	E. L. Wickins	15625	13 Nov.	99	27 Nov.*
Rotation of shafting, Reversing	W. A. Gamman	15684	26 Nov.	102	11 Dec.
"Roulette" billiards	E. Hasselbach	15736	6 Dec.	2	8 Jan., 1903.*
Rowlock and grip-bracket	D. Urquhart	15457	1 Oct.	83	16 Oct.*
Rubber composite, Leather and	C. D. Lightband and F. A. Webster	15721	3 Dec.	102	11 Dec.*
Rug for cows, &c.	J. Burge	15624	13 Nov.	99	27 Nov.
Rug, Securing horse	J. Ellis	15811	24 Dec.	2	8 Jan., 1903.*

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Sack-mouth fastener	W. Beamish	15508	11 Oct.	87	30 Oct.*
Sack-mouth fastener	W. Beamish	15669	19 Nov.	99	27 Nov.*
Saddle	H. W. Downing	15556	27 Nov.	94	13 Nov.*
Safety-valve	M. Corrington	15820	30 Dec.	6	23 Jan., 1903.
Sash-fastener	A. F. W. Lorie	14554	20 Feb.	102	11 Dec.
Sash-fastener	R. F. Smith	15027	19 June	78	2 Oct.
Sash, Safety	H. Mayr	15591	30 Oct.	94	13 Nov.
Sash, Sustaining and fastening window	J. A. Belk	13968	4 Sept., 1901	102	11 Dec.
Sash, &c., Window	J. Moss	15821	30 Dec.	6	23 Jan., 1903.
Saucepan-lid	S. S. Stretton	15666	21 Nov.	99	27 Nov.*
Sawing-machine, Vertical	J. Robson	15655	19 Nov.	99	27 Nov.*
Scoop, Dray	D. L. Cochrane	15676	19 Nov.	99	27 Nov.*
Scoop, Dray	D. L. Cochrane	15712	3 Dec.	102	11 Dec.*
Scouring. (See Wool-scouring.)					
Screen. (See Fire-screen, Gold-screen, Dredge-screen.)					
Screw	C. F. Dunn	15774	17 Dec.	2	8 Jan., 1903.
Screw-propelled vessel, Propeller-hood for	M. W. Lane	15560	28 Oct.	94	13 Nov.
Scrubber	T. M. Higgie	15454	25 Oct.	94	13 Nov.
Scutching-machine, Feeding flax-fibre to	W. B. Arlidge	14923	26 May	83	16 Oct.
Scutching machine, Flax	A. E. Reeves	15710	29 Nov.	102	11 Dec.*
Sea, Utilising power of waves of	C. P. de Lajard	15654	19 Nov.	99	27 Nov.
Seal lock for mail-bag	J. Channon	15678	25 Nov.	102	11 Dec.
Seat for chair, Adjustable	H. Salomo	15469	3 Oct.	83	16 Oct.*
Seat for vehicle, Adjustable	W. Jenkinson	15509	9 Oct.	87	30 Oct.*
Seed-drill box	H. V. McKay	14746	14 April	2	8 Jan., 1903.
Seed broadcast, Drill for sowing	R. W. Ayson	15723	2 Dec.	2	8 Jan., 1903.*
Seed-sower	W. E. Chamberlain	15806	23 Dec.	..	..
Seed sower and hopper, Agricultural	A. Storrle	14423	8 Jan.	83	16 Oct.
Seed-sowing canister	E. Bowmar	15604	5 Nov.	94	13 Nov.*
Seeding-machine, Furrow-opener	Bickford and Huffman Company	15683	26 Nov.	102	11 Dec.
Seed with fertiliser, Sowing	P. F. A. and J. Robertson	15550	9 Oct.	87	30 Oct.
Self-acting earth-closet	J. W. Henderson	15686	27 Nov.	102	11 Dec.*
Selvedge-stripping flax-drum	W. Fairweather, J. Fairweather, and W. Fairweather, jun.	15795	18 Dec.	2	8 Jan., 1903.*
Separating fine from coarse washdirt	J. Thomson	15801	18 Dec.	2	8 Jan., 1903.*
Separator, Oil and grease	F. Moore	15762	12 Dec.	2	8 Jan., 1903.
Set-square	H. H. Murdoch	15660	19 Nov.	99	27 Nov.
Settees adjusting	A. W. Memory and F. G. Hind	14512	11 Feb.	99	27 Nov.
Sewage-treating tank, &c.	J. T. N. Anderson	15679	22 Nov.	102	11 Dec.*
Sewing-machine	J. C. Moore	14456	21 Jan.	94	13 Nov.
Sewing-machine, Vertical	J. Robson	15655	19 Nov.	99	27 Nov.*
Shackle and sling	W. Beamish	15507	11 Oct.	87	30 Oct.*
Shafting, Reversing	W. A. Gamman	15684	26 Nov.	102	11 Dec.
Sheaf-binding harvester, &c.	I. Trolley	15600	5 Nov.	94	19 Nov.*
Shearing hair or wool	Wolseley Sheep-shearing Machine Company, Limited	15644	19 Nov.	99	27 Nov.
Shears. (See Sheep-shears.)					
Sheep-shears	J. A. Boreham	15553	23 Oct.	94	13 Nov.*
Sheep-shears	O. Börs	15420	19 Sept.	94	13 Nov.
Sheep-shears	H. Burgon	15682	15 Feb.	102	11 Dec.
Sheep-shears	J. Pomeroy	14590	1 March	99	27 Nov.
Shell, Carrying and mixing components of	H. R. Walker	15693	27 Nov.	102	11 Dec.*
Ship's course recorder	W. C. Forbes	15541	22 Oct.	87	30 Oct.
Ship, Distance, &c., recorder for	W. C. Forbes	15541	22 Oct.	87	30 Oct.
Shovel	J. Arthur, jun.	15810	23 Dec.	6	23 Jan., 1903.*
Signalling state of tide	G. Allman	15611	6 Nov.	94	13 Nov.*
Signalling state of tide	G. Allman, F. Clennell, and H. L. Moffatt	15776	17 Dec.	2	8 Jan., 1903.
Silver-sulphide, Extracting, from ore	E. S. Baldwin and H. H. Raymond	15687	27 Nov.	102	11 Dec.
Single-wire system of cash-railway	G. W. Basley	15547	20 Oct.	87	30 Oct.
Siphon	W. Waters	15702	27 Nov.	102	11 Dec.*
Siphon flushing-tank	A. Burt, jun.	15562	25 Oct.	94	13 Nov.*
Siphon for water-closet	J. Constable	15670	22 Nov.	102	11 Dec.
Siphon pump for drawing off liquids	W. H. Boyens	14396	3 Jan.	94	13 Nov.
Skin, Preparation for	K. Cooper	15520	15 Oct.	87	30 Oct.*
Sleeve of lower tumbler shaft, Attaching	J. Murison and C. L. Watt	14808	26 April	2	8 Jan., 1903.
Sling and shackle	W. Beamish	15507	11 Oct.	87	30 Oct.*
Smoke or fumes, Pumping	D. Hanna	15643	19 Nov.	99	27 Nov.*
Soap-moulding machine	K. Schnetzer	15727	3 Dec.	..	..
Soda-water bottle, Opening	S. White	15697	26 Nov.	102	11 Dec.*
Soles of boots, Trimming	United Shoe Machinery Company	15650	19 Nov.	99	27 Nov.*
Sower. (See Seed-sower.)					
Sowing seed with fertiliser	P. F. A. Robertson and J. Robertson	15550	16 Oct.	87	30 Oct.*
Spark-arrester and draught-controlling apparatus	J. C. Bowring	15715	4 Dec.	2	8 Jan., 1903.*
Spark-arrester for locomotive	H. S. Wainwright	15617	7 Nov.	99	27 Nov.
Spark-arrester for locomotive	J. Baird	15638	15 Nov.	99	27 Nov.*
Spark-catcher	C. W. Constable	15485	1 Oct.	87	30 Oct.*
Sponge, Restoring overworked	R. Todd	15470	3 Oct.	83	16 Oct.*
Spring. (See Carriage-spring.)					
Spring-grip dumb-bell, Converting an ordinary into	J. Payne	15639	14 Nov.	99	27 Nov.*

ALPHABETICAL LIST OF INVENTIONS *continued.*

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Square. (See Set-square.)					
Stand for exhibiting purposes..	T. Mutton and H. E. Hupton ..	15613	4 Nov.	99	27 Nov.
Stand for ironing-board ..	W. Swinnerton ..	15558	24 Oct.	102	11 Dec.
Staple ..	P. H. McConachy ..	15641	18 Nov.	99	27 Nov.*
Starting-machine, Horse-race ..	H. C. Stortenbeker and S. J. Cowan ..	15716	4 Dec.	102	11 Dec.
Steam-boiler ..	R. P. Gibbons ..	15497	7 Oct.	87	30 Oct.*
Steam-boiler, Vertical ..	R. P. Gibbons ..	15614	5 Nov.	99	27 Nov.*
Steam-engine, Compound ..	R. P. Gibbons ..	15537	18 Oct.	87	30 Oct.*
Steam-engine, Rotary ..	E. L. Wickins ..	15625	13 Nov.	99	27 Nov.*
Steam, Heating water by ..	H. Baux ..	15524	14 Oct.	87	30 Oct.*
Steamer, Cleaning corrosive matter from..	R. B. Wight ..	15526	14 Oct.	87	30 Oct.*
Steering-engine, Controlling-gear for	J. McLean ..	15802	22 Dec.	2	8 Jan., 1903.*
Stiffener for boot ..	H. Whittaker ..	15534	18 Oct.	87	30 Oct.*
Stoker, Mechanical ..	J. W. Kincaid ..	15783	18 Dec.	2	8 Jan., 1903.
Stop-cock, Automatic ..	R. S. Haughton ..	15730	8 Dec.	2	8 Jan., 1903.*
Stopper for bottle ..	L. Caselberg ..	14476	27 Jan.	94	13 Nov.
Stopper, Horse ..	T. Firth ..	15758	15 Dec.	2	8 Jan., 1903.*
Stopper, Vehicle-wheel ..	F. Hatton ..	15720	4 Dec.	102	11 Dec.*
Stopping and restarting windmill	J. M. Phillippis ..	15551	25 Oct.	87	30 Oct.
Strainer. (See Wire-strainer.)					
Strainer, Milk ..	D. Harris ..	15619	12 Nov.	99	27 Nov.
Straining milk, Apparatus for..	G. Adcock ..	15506	13 Oct.	6	23 Jan., 1903.
Straw-trusser, &c. ..	I. Trolley ..	15600	5 Nov.	94	13 Nov.*
Streets, Cleaning and watering	H. Ashwood ..	15772	17 Dec.	2	8 Jan., 1903.*
Stretcher. (See Trouser-stretcher.)					
Strop. (See Razor-strop.)					
Structural arrangement applicable to roofing, &c.	E. L. Pease ..	15740	10 Dec.	2	8 Jan., 1903.
Stump-grubbing machine ..	S. H. Manners ..	15759	15 Dec.	2	8 Jan., 1903.
Subsoil, Plough for breaking ..	H. Coe ..	15642	17 Nov.	99	27 Nov.*
Suction-cell, Dental ..	E. A. Slack ..	14521	5 Feb.	94	13 Nov.
Suction-dredging, Valve for ..	J. Shepherd ..	15503	10 Oct.	87	30 Oct.*
Sulphides, Extracting ..	E. S. Baldwin and H. H. Rayward ..	15681	26 Nov.	102	11 Dec.*
Sulphides, Extracting ..	E. S. Baldwin and H. H. Rayward ..	15687	27 Nov.	102	11 Dec.
Supporting window-curtain ..	V. H. L. Wood ..	15636	17 Nov.	99	27 Nov.*
Survey-pegs, Marking ..	W. D. R. McCurdie ..	15794	17 Dec.	2	8 Jan., 1903.*
Suspender, Trouser ..	H. G. McWilliam ..	15823	30 Dec.	6	23 Jan., 1903.
Sweeping-brush, Dustless ..	J. P. Wiens ..	15515	16 Oct.	87	30 Oct.
Sweetmeat for consumption, &c., Medicated	M. Bjornstad and J. Stacey ..	15808	20 Dec.	2	8 Jan., 1903.
Table-cricket ..	H. Banks ..	15477	6 Oct.	87	30 Oct.
Table, Extension ..	L. Kortlang, sen., and A. Kortlang ..	15775	17 Dec.	2	8 Jan., 1903.*
Table for invalid ..	F. A. Miller ..	14600	10 March	102	11 Dec.
Table game, New ..	W. Dawson ..	15458	1 Oct.	83	16 Oct.*
Table, Gold-saving ..	J. Ramsay ..	15656	17 Nov.	99	27 Nov.*
Table, Gold-saving ..	J. Ramsay ..	15726	5 Dec.	2	8 Jan., 1903.*
Tailboard and seat for vehicle, Adjustable	W. Jenkinson ..	15509	9 Oct.	87	30 Oct.*
Tailboard of cart, Fastening ..	H. Anstice ..	15754	12 Dec.	2	8 Jan., 1903.*
Tailings for gold, &c., Treating ..	M. Gargurevich ..	15468	3 Oct.	83	16 Oct.*
Tank, elevator and cleanser, Sewage-treating	J. T. N. Anderson ..	15679	22 Nov.	102	11 Dec.*
Tap for filter-press, High-pressure ..	R. F. Bradshaw and W. E. Harding ..	15769	17 Dec.	2	8 Jan., 1903.
Tap, Telescopic ..	W. J. Dalton ..	15592	30 Oct.	94	13 Nov.
Tape for telegraph instrument, Perforating	J. Gell ..	14097	5 Oct., 1901	83	16 Oct.
Target ..	J. W. Porter ..	15230	7 Aug.	99	27 Nov.
Target ..	T. Goucher ..	14565	28 Feb.	102	11 Dec.
Target, Holding and plumbing ..	W. Hatton ..	15725	8 Dec.	2	8 Jan., 1903.
Tea, Soluble extract of ..	J. Roger and M. K. Bamber ..	15664	18 Nov.	99	27 Nov.
Telegraph instrument, Perforating tape for Telegraphy. (See Wireless telegraphy.)	J. Gell ..	14097	5 Oct., 1901	83	16 Oct.
Telescopic tap ..	W. J. Dalton ..	15592	30 Oct.	94	13 Nov.
Tennis net, Table ..	W. N. Smith ..	15608	6 Nov.	..	..
Tents and valise accessories ..	W. Y. Hunter ..	15707	2 Dec.	102	11 Dec.
Textile material in roll, Indicating length of	T. S. Philpott and T. Herd ..	15471	3 Oct.	83	16 Oct.*
Tide, Signalling state of ..	G. Allman ..	15611	6 Nov.	94	13 Nov.*
Tide, Signalling state of ..	G. Allman, F. Clennell, and H. L. Moffatt ..	15776	17 Dec.	2	8 Jan., 1903.*
Tightener, Belt and rope ..	A. S. Pike ..	15747	11 Dec.	2	8 Jan., 1903.*
Tightening rim of wooden wheel ..	J. Winters ..	15584	31 Oct.	94	13 Nov.*
Tightening wire-fencing ..	C. E. Hayward, jun. ..	15590	3 Nov.	94	13 Nov.*
Time-recorder. (See Clock.)					
Tine cultivator, Spring ..	F. Cooper ..	14677	22 March	2	8 Jan., 1903.
Tinning machine, Butter ..	R. Boxall and A. C. Robinson ..	15543	23 Oct.	99	27 Nov.
Tinning or retinning metal goods	H. Hodgson ..	14883	30 Dec., 1901	83	16 Oct.
Tire. (See Pneumatic tire.)					
Tire, Cover for pneumatic ..	C. D. Lightband ..	15495	7 Oct.	87	30 Oct.*
Tire of bicycle, Removing ..	S. Nicolson ..	15659	20 Nov.	2	8 Jan., 1903.*
Tire, Pneumatic ..	C. Ray ..	14395	3 Jan.	83	16 Oct.
Tire, Pneumatic ..	J. R. Brunt and R. C. Pitt ..	14408	8 Jan.	83	16 Oct.
Tires, Shaping covers of ..	F. S. Ornstien ..	15704	29 Nov.	102	11 Dec.
Tires, Sustaining air-pressure in ..	P. J. Darling, F. L. Summerton, and F. J. Amos ..	15567	28 Oct.	99	27 Nov.

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Tobacco-pipe cleaner	A. Williamson	15587	29 Oct.	94	13 Nov.*
Tongs	W. Borlase	15488	3 Oct.	87	30 Oct.*
Tool, Edged	R. McKenzie	15722	2 Dec.	102	11 Dec.*
Totalisator	H. Droutledge	15814	22 Dec.	6	23 Jan., 1903.*
Toy	R. W. Duke	15599	5 Nov.	94	13 Nov.*
Traction. (See Electric traction.)					
Traction machinery	N. Hiss	15782	18 Dec.	2	8 Jan., 1903.
Train, Distance-indicator for ..	J. McKinnon	15816	29 Dec.	..	..
Tramcar brake, Electric	J. T. Hunter	15579	30 Oct.	94	13 Nov.
Tramways, Cleaning grooves of ..	G. McMullen, A. Rankin, F. A. Jones, and O. Bowman	14863	9 May	78	2 Oct.
Trap, Animal	A. Campbell	15791	16 Dec.	2	8 Jan., 1903.*
Trap, Animal	D. Matheson and D. Taylor	15505	10 Oct.	..	..
Trap, Animal	R. S. Black	15487	3 Oct.	87	30 Oct.*
Trap, Animal	W. Borlase	15785	6 Dec.	2	8 Jan., 1903.*
Trap, Rabbit	C. W. Constable	15675	19 Nov.	102	11 Dec.*
Trap, Small-bird	F. A. Burdett-Stuart	15595	4 Nov.	99	27 Nov.*
Trap. (See also Rat-trap.)				2	8 Jan., 1903.
Trimming soles of boots	United Shoe Machinery Company	15650	19 Nov.	99	27 Nov.*
Trouser-clip, Cyclists'	W. Beamish	15668	19 Nov.	99	27 Nov.*
Trousers, Stretching	C. Bristow	14805	29 April	87	30 Oct.
Trouser-suspender	H. G. MacWilliam	15823	30 Dec.	6	23 Jan., 1903.
Tumbler of lower tumbler shaft, Sleeve for	J. Murison and C. L. Watt	14808	26 April	2	8 Jan., 1903.
Tunnel, Wall or lining for	G. H. Dunlop	15819	30 Dec.	6	23 Jan., 1903.
Typewriter, Copying-ink for	W. Stewart	15530	15 Oct.	87	30 Oct.*
Umbrella	K. Davey	15545	22 Oct.	87	37 Oct.*
Umbrella-fastener	R. N. Adams	15789	16 Dec.	2	8 Jan., 1903.*
Umbrella-rib, Clip for broken ..	T. Rice	15513	14 Oct.	94	13 Nov.
Valise. (See Kit-valise.)					
Valise accessories, Tents and ..	W. T. Hunter	15707	2 Dec.	102	11 Dec.
Valve-arrangement for suction-dredging	J. Shepherd	15503	10 Oct.	87	30 Oct.*
Valve gear, Engine	W. Mayne	15583	31 Oct.	94	13 Nov.
Valve, Relief	P. E. Sagnot and T. Tonks	15719	4 Dec.	102	11 Dec.*
Valve, Safety	M. Corrington	15820	30 Dec.	6	23 Jan., 1903.
Vapour-burner	E. Waters, jun.	15718	4 Dec.	102	11 Dec.
Variable-speed gearing for velocipede	J. H. Braithwaite	15770	17 Dec.	2	8 Jan., 1903.
Vehicle, Adjustable seat and tailboard for	W. Jenkinson	15509	9 Oct.	87	30 Oct.*
Vehicle-wheel brake	F. Matthews	15792	19 Dec.	2	8 Jan., 1903.*
Vehicle-wheel lock	T. Firth	15758	15 Dec.	2	8 Jan., 1903.*
Vehicle-wheel stop	F. Hatton	15720	4 Dec.	102	11 Dec.*
Vehicles, Oiling axles of	T. S. Philpott	14609	12 March	2	8 Jan., 1903.
Velocipede, Free wheel, &c., for	J. H. Braithwaite	15770	17 Dec.	2	8 Jan., 1903.
Venetian-blind	R. Barrett	15523	16 Oct.	87	30 Oct.*
Ventilating, Window for	F. Roberts	15546	21 Oct.	87	30 Oct.*
Ventilator	R. Tudehope and B. Crawford	15481	3 Oct.	87	30 Oct.*
Ventilator	W. F. Slack	15552	25 Oct.	87	30 Oct.*
Vessel for metallurgical work, Lining of	G. Westinghouse	15479	7 Oct.	87	30 Oct.
Vessels, Loading, &c.	G. H. Airey	15609	6 Nov.	99	27 Nov.
Vessels, Unloading	Economic Hoisting and Ballast Company	15749	11 Dec.	2	8 Jan., 1903.
Wad for ammunition-loading	Colonial Ammunition Company, Limited	15435	24 Sept.	102	11 Dec.
Wall or lining for tunnel, &c. ..	G. H. Dunlop	15819	30 Dec.	6	23 Jan., 1903.
Walling	E. L. Pease	15740	10 Dec.	2	8 Jan., 1903.
Walls	J. G. F. Lund	15779	18 Dec.	2	8 Jan., 1903.
Washdirt, Treating auriferous	J. Thomson	15799	17 Dec.	2	8 Jan., 1903.*
Washdirt, Treating auriferous	J. Thomson	15800	17 Dec.	2	8 Jan., 1903.*
Washing. (See Wool-washing.)					
Washing-copper	J. Bates and W. G. Trudgeon	15692	27 Nov.	102	11 Dec.
Waste heat from lamp, Utilising ..	E. J. Kee	15517	13 Oct.	87	30 Oct.*
Waste products of oil-engine, Discharging	R. Arthur	14669	22 March	2	8 Jan., 1903.
Water-cycle	F. Winter	14373	24 Dec., 1901	83	16 Oct.
Water-column boiler, Multitubular	A. C. Coulsell, H. W. Coulsell, F. Coulsell, and L. B. Coulsell	15677	25 Nov.	102	11 Dec.*
Water-filter	J. T. N. Anderson	15756	11 Dec.	..	..
Water-gas, Carburetted	H. W. G. Henderson	14654	20 March	83	16 Oct.
Water-gauge for steam-boiler	A. B. Masters	15585	31 Oct.	94	13 Nov.*
Water-heater	C. H. Verity	15777	30 Dec.	..	..
Water-heater	R. L. H. Murray	15536	16 Oct.	9	5 Feb., 1903.
Water, Heating, by steam	H. Baux	15524	14 Oct.	87	30 Oct.*
Water-motor	W. W. Gundrie	15504	10 Oct.	87	30 Oct.*
Water pipe, Artesian	J. Free	15701	28 Nov.	2	8 Jan., 1903.*
Waterproofing composition	G. F. Newman	15634	17 Nov.	99	27 Nov.
Water-tube boiler	J. Cowan	15569	30 Oct.	94	13 Nov.
Wave-power utilisier	C. P. de Lajard	15654	19 Nov.	99	27 Nov.
Weeding tool, Lawn	W. Harrison	15714	4 Dec.	102	11 Dec.*
Wheel lock, Vehicle	J. R. Jewell and W. H. Jewell	14645	20 March	2	8 Jan., 1903.
Wheel-rim, Tightening	J. Winters	15584	31 Oct.	94	13 Nov.
Wheel stop, Vehicle	F. Hatton	15720	4 Dec.	102	11 Dec.*
Wheel-tire cover	F. S. Ornstien	15703	29 Nov.	102	11 Dec.*
Wheel-tire cover, Shaping	F. S. Ornstien	15704	24 Nov.	102	11 Dec.*

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
White-lead, Manufacture of	Clancy White-lead Company Proprietary, Limited	15542	23 Oct.	87	30 Oct.
Wick, Lamp	D. Gascoyne	15743	10 Dec.	2	8 Jan., 1903.*
Windmill	J. Bedford and T. F. Longland ..	14541	20 Feb.	102	11 Dec.
Windmill, Starting and stopping ..	J. M. Phillips	15551	25 Oct.	87	30 Oct.
Window-cord, Renewing	A. Smith and R. Ewing	15499	10 Oct.	..	..
Window-curtain, Supporting	V. H. L. Wood	15636	17 Nov.	99	27 Nov.*
Window for ventilating	T. Roberts	15546	21 Oct.	87	30 Oct.*
Window-lock	J. H. S. Brown	15696	25 Nov.	102	11 Dec.
Window-sash, &c.	J. Moss	15821	30 Dec.	6	23 Jan., 1903.
Window-sash fastener	R. F. Smith	15027	19 June	78	2 Oct.
Window-sash, Sustaining and fastening ..	J. A. Balk	13968	4 Sept., 1901	102	11 Dec.
Window-sashes, Securing cords to ..	J. Armstrong	15449	26 Sept.	99	27 Nov.*
Wire coiler, Plain and barb	E. J. Churoh	15463	1 Oct.	83	16 Oct.*
Wire-fence dropper	T. D. Cummins and W. T. Nuttall	15755	13 Dec.	2	8 Jan., 1903.
Wire fencing, Securing dropper to ..	J. Harris	15557	27 Oct.	94	13 Nov.*
Wire-joining	D. Harris	15620	12 Nov.	99	27 Nov.
Wire-strainer	A. Sutherland	14569	28 Feb.	102	11 Dec.
Wire-strainer	C. A. Bergersen	15406	16 Sept.	99	27 Nov.
Wire-tightening appliance	C. E. Hayward, jun.	15590	3 Nov.	94	13 Nov.*
Wire-track cash, &c., carrier	Lamson Store-service Company, Limited	15574	30 Oct.	94	13 Nov.
Wireless telegraphy, Receiver for ..	G. Marconi and Marconi's Wireless Telegraph Company, Limited	15689	3 May	102	11 Dec.
Wool. (See Shearing wool.)					
Wool-scouring machinery	F. L. Whitney	15490	9 Oct.	87	30 Oct.*
Wool-washing	A. Weaver	15519	14 Oct.	87	30 Oct.*
Wool-washing and saving wool-grease ..	J. H. Gardiner	15803	22 Dec.	2	8 Jan., 1903.*
Wringer. (See Clothes-wringer.)					
Zinc, Process for obtaining	E. H. Hopkins	15728	5 June	2	8 Jan., 1903.
Zinc-sulphide from their ore, Extracting ..	E. S. Baldwin and H. H. Rayward	15687	27 Nov.	102	11 Dec.
Zinc-sulphide, Extracting	E. S. Baldwin and H. H. Rayward	15681	26 Nov.	102	11 Dec.*
				2	8 Jan., 1903.

List of Applicants for Registration of Designs.

A LPHABETICAL list of applicants for registration of designs during quarter ending 31st December, 1902.

Name and Address.	No. of Class.	Design.		Gazette.	
		No.	Date.	No.	Date.
Iceberg Butter-box Syndicate, Limited, Wellington, Eng.	3	171	16 October ..	87	30 October.
Lever Bros., Limited, Balmain, N.S.W.	3	172	18 December ..	6	23 January, 1903.
Spreckley and Co., Auckland, N.Z. ..	5	164-169	9 October ..	87	30 October.

List of Applicants for Registration of Trade Marks.

ALPHABETICAL list of applicants for registration of trade marks for quarter ending 31st December, 1902 (including also applications lodged prior to but gazetted during such quarter).

Name.	Address.	Class.	Application.		Gazette.	
			No.	Date.	No.	Date.
Alaska Packers' Association	San Francisco, Cal.	42	3968	16 Oct.	..	..
Alaska Packers' Association	San Francisco, Cal.	42	3969	16 Oct.	..	..
Alaska Packers' Association	San Francisco, Cal.	42	3970	16 Oct.	..	..
Alaska Packers' Association	San Francisco, Cal.	42	3971	16 Oct.	..	..
Alaska Packers' Association	San Francisco, Cal.	42	3972	16 Oct.	..	..
Alaska Packers' Association	San Francisco, Cal.	42	3973	16 Oct.	..	..
Allen, M.	Mosgiel, N.Z.	2	4029	17 Dec.	2	8 Jan., 1903.
American Tobacco Company	New York, U.S.A.	45	3997	13 Nov.	2	8 Jan., 1903.
American Tobacco Company	New York, U.S.A.	45	3998	13 Nov.	2	8 Jan., 1903.
Aramoho Meat Company	Wanganui, N.Z.	42	3993	11 Nov.	..	..
Aulsebrook and Co.	Christchurch, N.Z.	42	3979	22 Oct.	94	13 Nov.
Australian Explosives and Chemical Company	Melbourne, Vic.	2	3995	13 Nov.	99	27 Nov.
Australian Explosives and Chemical Company	Melbourne, Vic.	20	3996	13 Nov.	99	27 Nov.
Bartram and Son, J.	Melbourne, Vic.	42	3982	27 Oct.	99	27 Nov.
Beath, Schiess, and Co.	Melbourne, Vic.	38	3950	25 Sept.	87	30 Oct.
Beatty, J.	Dunedin, N.Z.	42	4016	28 Nov.	102	11 Dec.
Bennett, E. W.	San Francisco, Cal.	50	3984	28 Oct.	102	11 Dec.
Bickerton, R. T.	Christchurch, N.Z.	20	3990	6 Nov.	102	11 Dec.
Black, I. (See I. Tchernegovski.)						
Blackmore, F.	Greymouth, N.Z.	44	3985	28 Oct.	102	11 Dec.
Blyth and Platt	Watford, Eng.	50	4033	18 Dec.	2	8 Jan., 1903.
Brothwood, H. S.	Petersham, N.S.W.	3	4020	4 Dec.	102	11 Dec.
Brown, Barrett, and Co. (See J. McK. Geddes.)						
Cameron and Co., R. W.	Sydney, N.S.W.	42	4050	30 Dec.	2	8 Jan., 1903.
Cholmondeley and Bosanquet	Adelaide, S.A.	43	3687	26 Feb.	99	27 Nov.
Cholmondeley and Bosanquet	Adelaide, S.A.	43	3688	26 Feb.	99	27 Nov.
Clark and Sons, Limited	Auckland, N.Z.	..	4034	19 Dec.	..	..
Clark and Sons, Limited	Auckland, N.Z.	38	4035	19 Dec.	..	..
Clarke and Co., I. P.	Leicester, Eng.	23	4002	20 Nov.	..	..
Clements, F. M.	Petersham, N.S.W.	3	3966	14 Oct.	102	11 Dec.
Clipper Pneumatic Tire Company, Limited	Coventry, Eng.	2	4030	17 Dec.	..	..
Cunningham, W.	Auckland, N.Z.	3	4018	2 Dec.	..	..
Dawson, W.	Auckland, N.Z.	2	3959	4 Oct.	87	30 Oct.
Dawson, W.	Auckland, N.Z.	3	3960	4 Oct.	87	30 Oct.
Dawson, W.	Auckland, N.Z.	3	3961	4 Oct.	87	30 Oct.
Dawson, W.	Auckland, N.Z.	3	3962	4 Oct.	87	30 Oct.
Dickenson and Co. (See F. Wolfgang.)						
Dobbs, J.	Mangapuaka, N.Z.	42	3986	30 Oct.	102	11 Dec.
Ferguson and Co., J.	Glasgow and Melbourne	43	4023	5 Dec.	102	11 Dec.
Force Food Company	Buffalo, U.S.A.	42	3975	16 Oct.	87	30 Oct.
Geddes, J. McK.	Auckland, N.Z.	42	4017	29 Nov.	102	11 Dec.
Gill, P.	Wellington, N.Z.	3	4044	30 Dec.	..	..
Golden Bay Co-operative Dairy Factory Company, Limited	Takaka, Nelson, N.Z.	42	4001	20 Nov.	99	27 Nov.
Goodley, H.	Tologa Bay, N.Z.	3	3734	1 April	94	13 Nov.
Greening and Sons, Limited, N.	Warrington, Eng.	13	4032	18 Dec.	2	8 Jan., 1903.
Griffiths Bros. and Co.	London, Eng.	1	4048, 9	30 Dec.	2	8 Jan., 1903.
Hartman, S. B.	Columbus, U.S.A.	3	4039	24 Dec.	2	8 Jan., 1903.
Hean, G. W.	Wanganui, N.Z.	3	3989	6 Nov.	94	13 Nov.
Hertzberg and Co., A. M.	Brisbane, Queensland	3	4004	22 Nov.	99	27 Nov.
Hoffnung and Co. (1902), Limited, S.	London and Sydney	8	4036, 7	19 Dec.	..	..
Holdenson, P. J., and another	Melbourne, Vic.	42	4024	11 Dec.	..	..
Iceberg Butter-box Syndicate	Wellington, Eng.	50	3976	16 Oct.	94	13 Nov.
Ingle, J., and another	Waipataki, N.Z.	42	3956	2 Oct.	83	16 Oct.
Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited	Christchurch, Wellington, Dunedin, Auckland, N.Z.	3	4043	29 Dec.	2	8 Jan., 1903.
Leman, A.	Auckland, N.Z.	50	4038	23 Dec.	..	..
Lever Bros., Limited	Balmain, N.S.W.	47, 8	4012, 3	27 Nov.	102	11 Dec.
Lever Bros., Limited	Balmain, N.S.W.	47	4014	27 Nov.	102	11 Dec.
Lever Bros., Limited	Balmain, N.S.W.	47	4015	27 Nov.	102	11 Dec.
Lightband, C. D.	Christchurch, N.Z.	..	4022	4 Dec.	..	..
Maori Remedies Company. (See W. Dawson.)						
Marriner and Co.	Christchurch, N.Z.	50	3958	3 Oct.	83	16 Oct.
McDougall, R. E. (See Aulsebrook and Co.)						
Meadows, F. N. R.	Wellington, N.Z.	42	3994	13 Nov.	99	27 Nov.
Mutual Co-operative Stores. (See J. Beatty.)						

ALPHABETICAL LIST OF APPLICANTS FOR REGISTRATION OF TRADE MARKS—continued.

Name.	Address.	Class.	Application.		Gazette.	
			No.	Date.	No.	Date.
Nathan and Co., J.	Wellington, N.Z.	47	3991	8 Nov.	94	13 Nov.
Nathan and Co., J.	Wellington, N.Z.	50	3992	8 Nov.	94	13 Nov.
Neill and Co., Limited	Dunedin, N.Z.	42	3981	24 Oct.	87	30 Oct.
Nelson Bros., Limited	Tomoana, Hawke's Bay, N.Z.	42	3999	14 Nov.	..	..
Nelson Bros., Limited	Tomoana, Hawke's Bay, N.Z.	42	4000	14 Nov.	..	..
Nelson Bros., Limited	Tomoana, Hawke's Bay, N.Z.	42	4007, 8	26 Nov.	102	11 Dec.
Nield, D.	Wellington, N.Z.	50	3980	24 Oct.	..	..
Nielsen, A. J., and another	Melbourne, Vic.	42	4024	..	..	..
Norton and Co., J. T.	Lyttelton, N.Z.	3	3957	3 Oct.	87	30 Oct.
Oakes and Co.	Madras and London	45	3987	30 Oct.	..	..
Pacific Polish and Compound Company, Incorporated	San Francisco, Cal.	50	4031	17 Dec.	2	8 Jan., 1903.
Paris Medicine Company	St. Louis and London	3	4045, 6	..	..	..
Paris Medicine Company	St. Louis and London	3	4047	30 Dec.	2	8 Jan., 1903.
Patterson, J. J., and another	Waipatiki, N.Z.	42	3956	2 Oct.	83	16 Oct.
Pilkington Bros., Limited	St. Helen's Eng.	15	4009	26 Nov.	102	11 Dec.
Porter and Co., Limited, R.	London, Eng.	43	4027	17 Dec.	2	8 Jan., 1903.
Preservaline Manufacturing Company, The	New York, U.S.A.	2	4025, 6	11 Dec.	2	8 Jan., 1903.
Reid and Reid	Wellington, N.Z.	47	3988	1 Nov.	94	13 Nov.
Rich and Co., E.	Sydney, N.S.W.	42	3610	28 Nov., 1901	94	13 Nov.
Salmon and Gluckstein	London, Eng.	45	3983	27 Oct.	87	30 Oct.
Sandow's Grip Dumb-bell Company	London, Eng.	49	4042	24 Dec.	2	8 Jan., 1903.
Sargood, Son, and Ewen	New Zealand	38	3967	14 Oct.	83	16 Oct.
Sefton Mutual Dairy Produce Association, Limited	Sefton, N.Z.	42	4006	26 Nov.	102	11 Dec.
Sharland and Co.	Wellington, N.Z.	50	3978	21 Oct.	87	30 Oct.
Smith, C. E.	Tologa Bay, N.Z.	3	3734	1 April	94	13 Nov.
Smith and Goodley. (See E. Smith and H. Goodley.)						
Stratford Farmers' Co-operative Association, Limited	Stratford, N.Z.	42	3955	1 Oct.	83	16 Oct.
Subritzky, J. A.	Awanui, N.Z.	3	4021	4 Dec.	102	11 Dec.
Sykes, A. E.	New Plymouth, N.Z.	3	4005	22 Nov.	..	..
Tchernegovski, I.	Wellington, N.Z.	43	4028	17 Dec.	2	8 Jan., 1903.
Tooth and Co., Limited	Sydney, N.S.W.	43	4011	27 Nov.	..	..
Tucker, W. F.	Auckland, N.Z.	42	3965	14 Oct.	83	16 Oct.
Turnbull and Co., W. and G.	Wellington, N.Z.	42	3937	16 Sept.	87	30 Oct.
Turnbull and Co., W. and G.	Wellington, N.Z.	42	3938	16 Sept.	..	..
Turnbull and Co., W. and G.	Wellington, N.Z.	42	3939	16 Sept.	87	30 Oct.
Union Oil, Soap, and Candle Company, Limited	Auckland, N.Z.	..	4003	21 Nov.	..	..
United Farmers' Co-operative Association, Limited	..	42	4051	30 Dec.	..	..
United States Rubber Company	London, Eng.	38	3974	16 Oct.	87	30 Oct.
Vacuum Oil Company	Rochester, U.S.A.	47	3964	10 Oct.	83	16 Oct.
Vickery and Sons, J. S.	Ballarat East, Vic.	3	3489	12 Aug., 1901	87	30 Oct.
Waldberg and Co.	Berlin, Germany	8	4040, 1	24 Dec.	..	..
Welsbach Light Company of Australasia, Limited, The	London, Eng.	18	4018	2 Dec.	102	11 Dec.
Wharton, G. E.	Gore, N.Z.	3	3963	9 Oct.	83	16 Oct.
Whittome, Stevenson, and Co.	Auckland, N.Z.	42	3953	29 Sept.	102	11 Dec.
Wolfgang, F.	Wellington, N.Z.	42	3977	16 Oct.	87	30 Oct.