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CONTENTS.

	Page
Complete Specifications accepted .. .. .	1299
Provisional Specifications accepted .. .. .	1306
Letters Patent sealed .. .. .	1307
Letters Patent on which Fees have been paid .. .. .	1307
Subsequent Proprietors of Letters Patent registered .. .. .	1307
Applications for Letters Patent abandoned .. .. .	1307
Applications for Letters Patent lapsed .. .. .	1307
Letters Patent void .. .. .	1307
Applications for Registration of Trade Marks .. .. .	1308
Trade Marks registered .. .. .	1310
Subsequent Proprietors of Trade Marks registered .. .. .	1310
Trade Mark Renewal Fees paid .. .. .	1310
Illustrations of Inventions .. .. .	1310
Quarterly List of Inventors .. .. .	1311
Quarterly List of Inventions .. .. .	1319
Quarterly List of Designs Applicants .. .. .	1331
Quarterly List of Trade Marks Applicants .. .. .	1331

apparatus for the purpose indicated, the combination of a centrifugal pump having suction and delivery pipes respectively in two branches, and valves adapted to close either of the branches of the suction-pipe and either of the branches of the delivery-pipe, one of the branches of the delivery-pipe being connected to one of the branches of the suction-pipe, substantially as and for the purpose specified and illustrated in the drawing. (4.) In apparatus for the purpose indicated, the combination of a centrifugal pump having suction and delivery pipes respectively in two branches, one of the branches of the delivery-pipe being connected to one of the branches of the suction-pipe; two valves, one adapted to close either of the branches of the delivery pipe, and the other to close either of the branches of the suction-pipe; and apparatus for actuating both of said valves simultaneously; substantially as and for the purposes specified and illustrated in the drawing. (5.) In apparatus for the purpose indicated, in combination a centrifugal pump having suction and delivery pipes each in two branches, a branch of the delivery-pipe connected to a branch of the suction-pipe, the other branch of the suction-pipe being connected to a tubular condenser through which water is drawn by the operation of the pump, substantially as specified and illustrated in the drawing.

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

*Notice of Acceptance of Complete Specifications.*

Patent Office,  
Wellington, 27th May, 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. 15097.—10th July, 1902.—JAMES SHEPHERD, of 14, Crawford Street, Dunedin, New Zealand, Engineer. Improvements in dredging machinery.\*

*Claims.*—(1.) My improvement in dredging machinery, consisting of the parts arranged, combined, and operating substantially as specified and as illustrated in the drawing. (2.) A centrifugal pump for suction-dredging in which there is no "cut-off," and in which there is a wide space between the vanes and the pump-casing, substantially as and for the purposes specified and illustrated in the drawing. (3.) In

No. 15220.—5th August, 1902.—HECTOR NORMAN MCLEOD, of Wellington, New Zealand, Civil Servant, and GEORGE ALFRED HURLEY, of Wellington, aforesaid, Land Agent. Improvements in and relating to gold-saving apparatus.\*

*Claims.*—(1.) In apparatus for saving gold, the employment of ripple-tables or the like having a plurality of cells, each cell comprising a circular hole and an approximately tangential inlet thereto, whereby a rotary, eddying, lifting, and swirling motion is imparted to the water, and material delivered to said cells, substantially as specified and as illustrated in the drawing. (2.) In apparatus for the purpose indicated, a plurality of cells, each cell and its inlet having the configuration in a plan view of figure 6, concentric shelves within the main portion of the cell, and a dome-shaped recess at the bottom thereof; the inlet to each cell corresponding with the tail of the figure 6, and being inclined downwardly and arranged at an angle to the circum-

ference of the cell whereby rotary motion is imparted to material passing therethrough; substantially as specified. (3.) For the purpose indicated, a plurality of cells, each cell being in section wide at the bottom and top and narrow near its middle, and having an inclined approximately tangential inlet, substantially as and for the purposes specified. (4.) For the purpose indicated, a saving-table containing a plurality of circular cells, each having an inlet arranged at an angle to its circumference whereby a rotary eddying motion is imparted to material passing through said cell, substantially as specified.

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

No. 15232.—7th August, 1902.—ALFRED COOPER, of Adelaide Road, Wellington, New Zealand, Dairyman. Improved means for locking the wheels of vehicles.\*

*Claims.*—(1.) For the purpose indicated, the parts arranged, combined, and operating substantially as described and illustrated in the drawing. (2.) Apparatus for locking two wheels of a vehicle simultaneously, consisting in the combination of a hand-lever fixed upon a rocking shaft which carries an arm connected by a link with a sliding rod, curved bolts pivotally connected to said sliding rod and guided in brackets, the said bolts when the lever is operated being projected between the spokes of the wheels, substantially as specified and illustrated.

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

No. 15241.—6th August, 1902.—LEAH ROBERTS, of the Octagon, Dunedin, New Zealand, Teacher of Dress-cutting. Improvements in charts for dress-cutting.\*

*Description.*—This invention is for improved charts for dress-cutting, and consists of the features hereinafter described in the drawings: Fig. 1 is a view of the front of bodice plan. Fig. 2 is a view of the front side of bodice plan. Fig. 3 is a view of the back plan. Fig. 4 is a view of the side body of the back plan. Fig. 5 is a view of the sleeve plan. The curves *a, b, c, d* in Fig. 1 as shown do away with having to measure 2 in. down and  $\frac{1}{2}$  in. back as on the ordinary charts; *e, f, g* are the circular fronts for evening dresses, which have been lengthened  $\frac{1}{2}$  in. on bust line *h* and reduced  $\frac{1}{2}$  in. on shoulder (*i*) to give the shape. The square neck-fronts *j k* have also been extended 1 in. on shoulder (*i*) and  $\frac{1}{2}$  in. on bust line *h* to give correct shape. The front bust lengths *h* have been extended  $\frac{1}{2}$  in., and lines *l, m, n, o, p, q, r, s, t, u*, representing front length of bodice, have been extended  $\frac{1}{2}$  in. to do away with having to add  $\frac{1}{2}$  in. when taking measurements. A second dart has been introduced at armhole (*w*) for measurements from 40 to 50 to correct the shape of armhole and to avoid having to move plan to get correct position to meet front seam of sleeve. The curves *x, y, z, a1, b1, c1* at armhole have been altered to do away with having to measure 2 in. up from the dart and  $\frac{1}{2}$  in. back. The bust-darts *d1* and *e1* have been lowered  $\frac{1}{2}$  in. to meet recent styles of dress-cutting. The angle at waist (*f1*) has been altered to a curve to improve the shape. The points at armholes have been done away with, also lines below armholes to length 5, to simplify the reading of measurements. The curve *g1* in Fig. 2 has been introduced for the purpose of forming accurate shape for armhole, the width has been extended, as *h1*, to correspond with No. 1 plan. I have introduced the curve at neck (*i* in Fig. 3), and extended the plan, which prevents having to move the plan to get the correct curve and to do away with the collar-piece. The lines across the back have also been curved at *j1* to enable the cutter to get correct curve without shifting the plan. The whole plan has been extended  $\frac{1}{2}$  in., thereby giving correct curve for back and side back. The angle at waist has been altered to a curve (*k1*) to improve the shape. The width across the back in Fig. 4 has been reduced  $\frac{1}{2}$  in. to avoid using collar-piece. The points have been done away with and perforations introduced at *m1* to mark inches and half-inches. The top part of upper sleeve, Fig. 5, has been reduced  $\frac{1}{2}$  in. to correct the shape. The curve towards the front has been extended  $\frac{1}{2}$  in. for the same reason. I have introduced lines for wrist-measurements to avoid having to correct undermeasurements by putting top perforations over top mark and swerving plan to the correct length. I have improved curves to collars, and reduced lengths  $\frac{1}{2}$  in. from 6 to 8 $\frac{1}{2}$  to correspond with neck-measures of bodice, and I have introduced also three collars, pointed, circular, and collars hooked at side. Referring again to Fig. 1, I have also introduced the pointed (*n1*) and the rounded (*o1*) lapel.

*Claim.*—The general construction, arrangement, and combination of parts composing my improvements in charts for dress-cutting, all substantially as and for the purposes set forth with reference to the drawings.

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

No. 15259.—12th August, 1902.—HENRY UPTON ALCOCK, of 208-212, Russell Street, Melbourne, Victoria, Billiard-table Manufacturer. An improved convertible billiard and dining table.\*

*Claims.*—(1.) In an improved convertible billiard and dining table, a single sliding frame as B, having four inclined-plane or wedge-shape surfaces on it, supported on side rails carried by the legged frame, combined with a movable table having cheeks on its underside formed with four inclined paths or surfaces on them and with the rod screwed one way only and the screwed nut, substantially as described and shown in Figs. 1, 2, and 3. (2.) In an improved convertible billiard and dining table, the combination of a sliding frame as B, having four upper and four lower inclined-plane surfaces, lower rail or inclined path-pieces attached to a legged frame, and upper rails or inclined path-pieces attached to the underside of a movable table with a screw-rod C<sup>2</sup> threaded one way only and a screwed nut C, substantially as described and as shown in Fig. 4 of the drawings. (3.) In an improved convertible billiard and dining table, the alternative means of lifting and lowering the table consisting of the combination of toggle-levers F, transverse bar as F<sup>1</sup> bearing a screwed nut at its centre, screwed rod C<sup>2</sup> threaded one way only, and the side rods F<sup>2</sup>, all arranged and assembled substantially as described and as shown in Figs. 5 and 6 of the drawings. (4.) An improved convertible billiard and dining table, consisting of the combination of a legged frame as A, provided with rails as A<sup>1</sup>, sliding frame as B, having four inclined-plane or wedge-shape surfaces *b* on it, screw-rod C<sup>2</sup> screwed one way only attached to the legged frame, and the screwed nut C attached to the sliding frame, with the movable table D<sup>1</sup> having under-cheeks D which have inclined paths to fit said sliding frame, and the vertical guides E attached to the legged frame and fitting into grooves in the cheeks D, substantially as described and shown in Figs. 1, 2, and 3.

(Specification, 4s. 3d.; drawings, 2s.)

No. 15263.—15th August, 1902.—ALFRED FRANKLIN ROY, of Dunedin, New Zealand, Sailmaker (assignee of John Taylor, of 59, Canongate Street, Dunedin aforesaid, Labourer), and WILLIAM OLLERENSHAW, of Marion Street, South Dunedin, Labourer. Waterproofing-composition.\*

*Claim.*—A waterproofing-composition consisting of raw linseed-oil, copal varnish, gold size, and terebene substantially as described.

(Specification, 1s.)

No. 15265.—15th August, 1902.—ARCHIBALD GRAY, of Manapouri Station, The Key, New Zealand, Station-manager. Combined claw-hammer and staple-drawer.\*

*Claim.*—A combined claw-hammer and staple-drawer, consisting of a body portion provided at one end with a claw-hammer head, and at the other end with a curved point, substantially as and for the purposes set forth.

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

No. 15266.—15th August, 1902.—ARCHIBALD GRAY, of Manapouri Station, The Key, New Zealand, Station-manager. Saddle tool-bag.\*

*Claims.*—(1.) The general construction, arrangement, and combination of parts composing my saddle tool-bag, all substantially as and for the purposes described with reference to the drawings. (2.) A saddle tool-bag consisting of an external bag containing another bag having several receptacles, and a looped strap above the internal bag secured inside of the external bag, substantially as described and for the purposes set forth.

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

No. 15267.—15th August, 1902.—ARCHIBALD GRAY, of Manapouri Station, The Key, New Zealand, Station-manager. Combined file, wire-twister, and rule.\*

*Extract from Specification.*—It consists of a flat strip of steel (1), of which the whole of one side and one-half of the other side (2) is cut as for a file. The remaining half (3) of the latter side is plain, and is graduated (4) at the edge into any desired graduations, such as one-inch and half-inch spaces. There is a hole (5) made in the flat side (1) of the tool at the centre. When it is desired to repair a wire fence or cut wire the filed edge of the tool is used, and when it is desired to twist the wire the latter is drawn through the hole in the tool, and the tool is then rotated for the purpose in view.

*Claim.*—A combined file, wire-twister, and rule substantially as described.

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

No. 15269.—18th August, 1902.—JAMES N. HANCOCK, of Centre Bush, Southland, New Zealand, Schoolmaster. An improved envelope.\*

*Claim.*—In envelopes, a flap provided with an extension-piece or tongue that is gummed upon its outer surface, in combination with a slit formed in the back of the envelope through which the tongue is adapted to be passed when the flap is folded down in such a manner that it will pass straight down and seal itself against the inside back of the envelope, substantially as described and explained.

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

No. 15350.—4th September, 1902.—GEORGE HENRY CATT, of Villa Amalthea, Hyde, Southampton, Hampshire, England, Justice of the Peace for the County of Hampshire. Improvements in the wheels of boot-finishing machines.\*

[NOTE.—The title in this case has been altered. See List of Provisional Specifications, Gazette No. 73, of the 16th September, 1902.]

*Claims.*—(1.) In the scoring-wheels of boot-finishing machines, a clamping-device consisting of a flange having an inwardly projecting arm secured to the movable portion of the outer layer upon said wheels, and a flange having inwardly projecting arms between which the arm from the moveable flange is inserted, the arms being bored out and locked by a rod operated from outside the wheel, substantially as described. (2.) In a clamping-device for the scoring-wheels of boot-finishing machines, the combination of a flange secured to the wheel, and of arms fast to said flange and projecting inwardly of said wheel, the underlayer being secured at one end against said flange and around the wheel; with a flange fast to a segment secured to the movable end of said underlayer, said moveable flange having an arm adapted to engage the arms from said fixed flange; and with a locking-rod carrying a coiled spring, said rod being mounted in a lug upon said wheel, said spring being retained between a projection upon said rod and the said lug, and said rod being arranged to pass through the arms from said flange; substantially as described. (3.) In wheels for scoring the soles of boots, the combination with the wheel provided peripherally with glass paper or the like, of cheek-plates upon the sides of the wheel and projecting slightly beyond the normal position of the scoring material, for the purposes and substantially as described.

(Specification, 6s. ; drawing, 2s.)

No. 15356.—4th September, 1902.—PERCY HERBERT DANDO, of Whangarei, New Zealand, Cabinetmaker. Improvements in chamber-utensils and attachments therefor.\*

*Claims.*—(1.) The article of manufacture, consisting of a chamber having, for the purpose set forth, a projection from the interior of one side formed as a ridge with sides that slope downwardly and transversely, said sides joining the ridge with the interior wall of the chamber. (2.) The article of manufacture, consisting of a chamber having, for the purpose set forth, a projection from the interior of one side formed as a ridge with sides that are downwardly curved and of concave conformation in cross-section, said sides jointing the ridge with the interior wall of the chamber. (3.) The combination with a chamber of means for the purpose set forth, comprising a downwardly projecting detachable side attachment provided with downwardly and transversely sloping side walls. (4.) The combination with a chamber of means for the purpose set forth, comprising a downwardly projecting detachable side attachment provided with a central longitudinal rib and concave side walls. (5.) The combination with a chamber having a slot in the rim thereof of means for the purpose set forth, comprising a downwardly projecting detachable side attachment provided with a curved hook at the upper end thereof adapted to rest in said slot and engage the rim of said chamber for supporting the same thereon flush with the top. (6.) The combination with a chamber having a slot in the rim thereof of means for the purpose set forth, comprising a downwardly projecting detachable side attachment provided with a projection or lip at the upper end thereof adapted to engage said slot, and means for securing said projection or lip in said slot flush with the surface of said chamber's rim. (7.) The combination with a chamber having a slot in the rim thereof of means for the purpose set forth, comprising a downwardly projecting detachable side attachment provided with a curved hook at the upper end thereof adapted to rest in said slot and engage the rim of said chamber for supporting the same thereon flush with the top, said attachment having downwardly and transversely sloping side walls. (8.) The combination with a chamber having a slot in the rim thereof of means for the purpose set forth, comprising a downwardly projecting de-

tachable side attachment provided with a curved hook at the upper end thereof adapted to rest in said slot and engage the rim of said chamber for supporting the same thereon flush with the top, said attachment having a curved central longitudinal rib and concave side walls.

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

No. 15590.—3rd November, 1902.—CHARLES EDWIN HAYWARD, the younger, of Maungakarama, Auckland, New Zealand, Farmer. An improved appliance for tightening the wires of wire fencing.\*

*Claims.*—(1.) The appliance for tightening the wires of wire fencing, the same consisting of a bar formed with handles at its extremities, and with a projection secured to its middle, such projection being provided with a groove or slot across its face, as specified. (2.) In appliances for tightening the wires of wire fencing, in combination, a bar formed with handles at its extremities, a projection secured to the middle of the bar, a slot or groove in the end face of the projection, notches on the edges of the bar on each side of the projection, and a cross-bar secured at right angles to the underside of the bar, and formed with catches upon its ends, as set forth.

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

No. 15756.—11th December, 1902.—JOSHUA THOMAS NOBLE ANDERSON, of Colonial Bank Chambers, Dunedin, New Zealand, Engineer-in-Chief, Dunedin Drainage and Sewage Board. Improved water-filter.

*Claims.*—(1.) In filters for purifying liquids, having three or more chambers connected in series, all chambers except one containing a filtering medium, and one chamber being the receptacle for the purified liquid, arranged so that the filtration may take place alternately downwards and upwards or alternately upwards and downwards, substantially as described and illustrated. (2.) The combination of a filter as described in the first claim, with two electrodes passing into same for the purpose of accompanying the filtering process with an electrolytic process, substantially as described and illustrated. (3.) In a filter as described in the first claim, having all the chambers in which filtering proceeds covered so as to exclude air and light, substantially as described and illustrated.

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

No. 16012.—21st February, 1903.—JAMES THOMAS HUNTER, of Queen's Chambers, Wellington, New Zealand, Engineer (nominee of The Westinghouse Brake Company, Limited, of 82, York Road, King's Cross, London, England, Manufacturers—the assignees of George Westinghouse, of Westinghouse Building, Pittsburg, Pennsylvania, United States of America, Manufacturer). Improvements in combined spring and frictional-resistance devices.

*Claims.*—(1.) A resistance-device consisting of a spring having a plurality of continuous turns and a friction-ring, one or more frictional faces being provided on the spring which engage with a corresponding face or faces on the ring for the purpose of producing frictional resistance when the spring is compressed. (2.) The modification of the invention in which two friction-rings are provided, one located inside the spring and the other outside and surrounding the same, each ring having one or more frictional faces adapted to engage with corresponding frictional faces on the spring. (3.) The modification of the invention in which the friction-ring is composed of a number of segments held in engagement with the spring by means of a resilient supporting tube or casing. (4.) Frictional-resistance devices constructed and operating substantially as described with reference to any of the forms shown in the drawings.

(Specification, 4s. 3d. ; drawings, 2s.)

No. 16179.—31st March, 1903.—ALFRED EDWARD NICCOLLS, of Jervois Road, Auckland, New Zealand, Gentleman. An improved waste-converter and process for manufacturing manures.

*Claim.*—The conversion of certain refuse matter into a valuable product by means of furnaces generating hot air and constructed with drying-chambers or floors heated and regulated by flues, passages, and dampers that, in combination with the method and treatment set forth, will be found to be economical and satisfactory in every respect, as substantially set forth.

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

No. 16217.—4th May, 1903.—JOSEPH FOORD WILSON, of Spey Street, Invercargill, New Zealand, Dentist, and EDWARD HENRY WHITMORE, of The Crescent, Invercargill aforesaid. Printer. An improved spring-book for securing luggage-labels and for supporting show-cards and the like purposes.

*Claims.*—(1.) For the purpose indicated, a hook of flat spring metal, substantially as described and illustrated. (2.) For the purpose indicated, a spring-hook made of flat metal, and having an integrally formed tongue projecting towards the shank of said hook, substantially as described and illustrated.

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

No. 16279.—29th April, 1903.—CHARLES WHITTINGHAM WYCHERLEY and HENRY SPARROW WYCHERLEY, of Wellington and Palmerston North, New Zealand, Saddlers. An improvement in fastening of leggings.\*

*Claims.*—(1.) A fastening for the purpose indicated consisting of a strap divided at one end into a plurality of parts or ends, each independently secured to one side of the legging, and a buckle upon the other side of the legging, adapted to receive the single end of said strap, substantially as described and illustrated. (2.) A fastening for the purpose indicated consisting of the parts arranged, combined, and operating substantially as specified and as illustrated in the various figures of the drawing.

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

No. 16298.—4th May, 1903.—ARTHUR BISHOP, of Carterton, New Zealand, Bush-manager. An improved snatch-block.

*Claims.*—(1.) In snatch-blocks, a spindle upon which the pulley is loosely mounted, hinged at one end to the bottom end of one of the side frames, and rigidly secured at the other end to the other side frame, in combination with means whereby the two side frames may be locked together at their top ends and be freed from each other, substantially as and for the purposes set forth. (2.) In snatch-blocks, a pair of side frames placed one on each side of the block-pulley, a spindle passing loosely through the pulley hinged at one end to one of the side frames, and rigidly secured at its other end to the other side frame, a cross-bar firmly secured at one end to the top end of the hinged side frame, while its other end is formed with a projection adapted to be passed through a hole in the other side frame, and a removable locking-pin passing through the projection so as to lock the two side frames together, as specified. (3.) The general arrangement, construction, and combination of parts in my improved snatch-block as described and explained, as illustrated in the drawing, and for the several purposes set forth.

(Specification, 3s. 6d.; drawing, 1s.)

No. 16299.—6th May, 1903.—PETER BURD JAGGER, of 5, Warrington Gardens, Maida Vale, London, England. Improvements in non-refillable bottles and like vessels.

*Claims.*—(1.) The improved bottle or vessel for containing liquid, and the means for preventing the same, when once emptied, from being refilled in fraud of the original packer, substantially as described and shown. (2.) The improved non-refillable bottle or vessel *a* for containing liquid, a seating *b* formed in the neck or shoulder of the said vessel, with a ball-valve *c* adapted to fit on to the said seating *b*, and surmounted by a coned stopper *f* having a concave base resting upon the ball-stopper *c*, a frame or cage surmounting the said coned stopper *f*, the base ring *h* of which rests upon an annular ridge *d* formed in the neck of the vessel *a*, the said base ring being formed integrally or otherwise with two or more uprights *k k* connected to a crown ring *l* and a central table or partition *m*, the said crown ring being adapted for expansion radially to fit into an annular groove *e* formed in the neck of the vessel *a*, the said frame or cage, when in position, being surmounted by a cork or stopper *p*, substantially as and for the purposes set forth, and shown by the drawings. (3.) The improved non-refillable bottle or vessel *a* for containing liquids, a seating *b* formed in the neck or shoulder of said vessel, a ball-valve *c* adapted to fit on to the said seating *b*, and surmounted by a coned stopper *f* having a concave base resting upon the ball-stopper *c*, a frame or cage surmounting the said stopper *f*, the base ring *h* whereof rests upon an annular ridge *d* formed in the neck of the vessel *a*, the said base ring being formed integrally or otherwise with

uprights *k k* connected to a crown ring *l* and a central table or partition *m*, the said crown ring being adapted for expansion radially to fit into an annular groove *e* formed in the neck of the vessel *a*, the said frame or cage, when in position, being surmounted by a cork or stopper *p*, substantially as and for the purposes described, and shown by the drawings, more particularly by Figs. 10 and 11. (4.) In a non-refillable bottle or like vessel *a* having any form of valve or stopper for closing the neck of said vessel, the combination therewith of a metallic cage or frame the upper end or crown ring of which is adapted for expansion radially to fit into an annular groove formed in the neck of said vessel, substantially as described and shown. (5.) In a non-refillable prepared bottle or vessel such as *a*, the combination therewith of a ball-valve *c*, coned stopper *f*, and metallic frame such as *h, k, l, m*, substantially as set forth and shown.

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

No. 16300.—6th May, 1903.—EDWARD HALL MILLER, of 81, Chardmore Road, Clapton Common, London, England, Fellow of the Chemical Society. A process for the elimination of sulphur from sulphide-ores.

*Claims.*—(1.) The described process for the elimination of sulphur from sulphide-ores, consisting in mixing powdered ore with powdered carbon or carbonaceous material and with sodium-sulphide or other suitable sulphide, exposing the mixture to a low heat in a restricted current of air for a short time, exposing the still heated product freely to air to cause rapid oxidation to ensue, and mixing the resultant product with a nitrate, such as Chili saltpetre, and heating the mixture. (2.) The process of completing the elimination of sulphur from sulphide-ores, consisting in heating the ore from which most of the sulphur has been eliminated with Chili saltpetre or other suitable nitrate, as described.

(Specification, 4s. 3d.)

No. 16302.—6th May, 1903.—THOMAS JOHNSTON GRIER, of Lead, in the County of Lawrence, South Dakota, United States of America, Superintendent of Homestake Mining Company. Improvements in processes for recovering precious metals from ores.

*Claims.*—(1.) The process of extracting precious metals from slimes, consisting in subjecting slimes to the action of a cyanide solution whereby the watery portions of the slimes may be replaced by the cyanide solution, the latter being of greater density than the water of the slimes, then treating the charge with compressed air and afterwards replacing the cyanide solution with a salt solution of greater density than the cyanide solution, as set forth. (2.) The process of extracting precious metals from slimes, consisting in subjecting the slimes to the action of a cyanide solution under pressure, whereby the water portions of the slimes may be replaced by the cyanide solution, the latter being of greater density than the water of the slimes, then treating the charge with compressed air and afterwards replacing the cyanide solution by introducing a salt solution under pressure and of greater density than the cyanide solution, as set forth. (3.) The process of extracting precious metals from slimes, consisting in spraying the thick slimes with a protective solution to neutralise the acids therein, of introducing a cyanide-of-potassium solution in the slimes to replace the watery portions thereof, the latter being of less density than the cyanide solution, afterwards treating the charge with air under pressure and then introducing in the vat containing the solution a salt solution under pressure, as set forth. (4.) The process of extracting precious metals from slimes, consisting in subjecting the slimes to a protective solution to neutralise the acid therein, then introducing a cyanide-of-potassium solution into the slimes to replace the watery portion thereof, the latter being of less density than the cyanide solution, of treating the charge with compressed air and afterward introducing in the vat in which the slime is contained a salt solution, and heating the contents of the vat above its false bottom for the purpose of reducing the density of the upper stratum of liquid, as set forth. (5.) The process of extracting precious metals from slimes, consisting in directing the slimes into a settling-tank, drawing off the thicker portions of the slimes and depositing the same into a leaching-vat, of introducing a cyanide solution under pressure through perforations in the false bottom of the vat, causing the watery portions of the slimes to be replaced by said cyanide solution, then treating the charge with air under pressure and afterward introducing in the vat a salt solution of greater density than the cyanide solution, as set forth.

(Specification, 6s.; drawing, 1s.)

No. 16308.—7th May, 1903.—ALFRED JOSEPH TONGE, of Chequerbent, near Bolton, Lancashire, England; JAMES TONGE, Jun., of Westhoughton, near Bolton aforesaid; and ELAM EAVES, of 96, Chatham Street, Stockport, Cheshire, England aforesaid, Engineers. Improvements in hydraulic presses and pumps for mining purposes.

*Claims.*—(1.) In hydraulic presses of the class described, pistons formed to operate in cylinders, means for forcing water or other liquid to operate said pistons, and sliding plates for arresting said pistons when the extent of their motion outwardly is reached, substantially as specified. (2.) In hydraulic presses of the class described, duplex pistons operating within and upon each other, means for forcing water or other liquid to operate said pistons, and a stop-plate formed to slide and fit within a groove in the walls of the cylinder so as to arrest the motion of one or other of said pistons, substantially as specified. (3.) In hydraulic presses of the class described, pistons mounted in their cylinders which are arranged to enable said pistons to travel in opposite directions, sliding stop-plates for arresting the motions of said pistons, and means for supplying water or other liquid under pressure to operate said pistons, substantially as specified. (4.) In hydraulic presses of the class described, pistons arranged to operate in cylinders, stop-plates formed in halves to slide into position in said cylinders, said cylinders, and means for supplying water or other liquid under pressure to operate said pistons, substantially as specified. (5.) In hydraulic presses of the class described, pistons mounted in their cylinders, said pistons having heads of increased size, means for supplying water or other liquid under pressure to said pistons, and means whereby the movements of said pistons are arrested, substantially as specified. (6.) In hydraulic presses of the class described, duplex pistons mounted within their cylinders, a sliding plate to arrest the motions of one part of said duplex piston and a bolt for arresting those of the other part, and means for supplying water or other liquid under pressure to said pistons, substantially as specified. (7.) In hydraulic presses of the class described, triple pistons mounted within their cylinders, sliding plates to arrest the motions of said pistons, and means for supplying water or other liquid under pressure to said pistons, substantially as specified. (8.) In hydraulic presses of the class described, pistons arranged to operate within a cylinder, said cylinder, pipes leading to same, and a pump having its body part wherein its plunger and two valves operate, substantially as specified. (9.) In hydraulic presses of the class described, pistons mounted to operate within a cylinder, said cylinder, a pump for supplying water or other liquid to said cylinder, said pump having its passages for the circulation of the water or other liquid formed to be easily and accurately produced, and so that facilities are afforded for their maintenance in repair, substantially as specified.

(Specification, 8s. 6d.; drawing, 4s.)

No. 16309.—7th May, 1903.—JOHN ALEXANDER BEALE, of Auckland, New Zealand, Solicitor. An improved oven-shelf, and means of lowering and raising same.

*Claims.*—(1.) In ovens, supporting-brackets arranged in rows along each side of the oven, in combination with shelves formed with indentations upon their side edges, such indentations on each edge corresponding in number with the brackets in each row, and being adapted to pass freely over such brackets, substantially as and for the purposes set forth. (2.) In ovens, supporting-brackets arranged in rows along each side of the oven, and shelves formed with indentations upon their side edges, such indentations on each edge corresponding in number with the brackets in each row, and being adapted to pass freely over such brackets, in combination with inclined plates secured to the sides of the ovens, and inclined downwards and backwards from the back edges of the brackets of each row to within a short distance of the level of the row next below, substantially as and for the purposes specified.

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

No. 16311.—7th May, 1903.—HENRY ASHWORTH, of Hanover Street, Wadestown, Wellington, New Zealand, Carrier. Improvements in apparatus for washing and drying wool.

*Claims.*—(1.) In apparatus for the purpose described, the combination of a wash-box having a gate in its side with a strainer, substantially as set forth. (2.) In apparatus for the purpose described, a wash-box having a sloping bottom for the purpose of bringing the wool to the surface of the water, substantially as set forth. (3.) In apparatus for the purpose de-

scribe, a wash-box having sloping, disintegrating, or beater bars for breaking up dags, substantially as set forth. (4.) In apparatus for the purpose described, a wash-box having a portion of its side sloped, and a portion of the side of the turret sloped, to allow of a better separation of foreign matter from the wool, and to accelerate the circuit of the water and wool in the wash-box, substantially as set forth. (5.) In apparatus for the purpose described, a strainer into which the washed wool is driven by the flow of water from a flume, substantially as set forth. (6.) In apparatus for the purpose described, drainers comprising longitudinal bars to which battens are fixed, and sheets of galvanised iron, the bottom edges of which are formed into gutters, substantially as set forth. (7.) The combination and arrangement of parts comprising the improvement in apparatus for washing and drying wool, substantially as and for the purposes set forth, and as illustrated in the drawings.

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

No. 16315.—14th April, 1903.—EARNEST HEINRICH WILHELM, of Marton, Rangitikei, New Zealand. Improved apparatus for searing and docking lambs' tails.

*Claims.*—(1.) In apparatus for the purpose described, a fence having a vertical member and a base, the vertical member having a gap to receive a lamb's tail, substantially as set forth. (2.) In apparatus for the purpose described, a pair of shears having its upper blade integral with the handle, a thickened part on the said blade, a lower blade pivoted to the upper blade, a stop-piece on the upper blade, and shoulders on the lower blade to engage with the said stop, substantially as set forth. (3.) In apparatus for the purpose described, a clamp having a bracket comprising a vertical member having a slot and a grooved race, substantially as set forth. (4.) In apparatus for the purpose described, a fence having a gap to receive a lamb's tail, in combination with a clamp having a bracket comprising a slotted vertical member and a race, substantially as set forth. (5.) In apparatus for the purpose described, a combination, a clamp having a bracket comprising a vertical member having a slot and a grooved race, a pair of shears having a notch in its upper blade, the said blade being integral with the handle, and a lower blade pivoted to the upper blade, substantially as set forth. (6.) In apparatus for the purpose described, a retort consisting of a hollow chamber having one end closed, and a bracket provided with a slot, substantially as set forth. (7.) In apparatus for the purpose described, a furnace-leg curved to correspond to the configuration of the furnace, and having a slotted lug to receive the lower rim of the same, substantially as set forth. (8.) In apparatus for the purpose described, a furnace comprising in combination a hollow vertical vessel, retorts extending transversely through the vessel and having slotted brackets to engage the wall of the vessel, and legs having slotted lugs to receive the lower rim of the said vessel, substantially as set forth. (9.) The combination and arrangement of parts comprising the improved apparatus for docking and searing lambs' tails, substantially as and for the purposes set forth being and illustrated in the drawings.

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

No. 16316.—8th May, 1903.—ERIC JOHANSON, of Waiwero, Barrytown, Nelson, New Zealand. Improved non-refill bottle.

*Claim.*—In a non-refill bottle, the combination of a conical valve, a seat therefor in the neck, and rows of cogs projecting from the interior of the neck, the cogs in the upper row being arranged in line with the spaces between the cogs in the row beneath it, substantially as and for the purposes described, and illustrated in the drawing.

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

No. 16317.—8th May, 1903.—JOHN MONTGOMERY, of "Waiwera," Little River, Canterbury, New Zealand, Farmer. An improved clip for neckties.

*Claim.*—A necktie-clip consisting of a looped wire, having its ends bent outwards and upwards from the main portion and then downwards, sharpened points upon the ends adapted to engage with the inside surface of the tie, and a sharp projection near the head of the loop adapted to engage with the lining of the collar, substantially as described.

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

No. 16324.—6th May, 1903.—SAMUEL BUTLER, of Henbury Hill, Westbury-on-Trym, Bristol, England, Merchant. Improvement in and relating to means for preventing the skidding or side-slipping of motor cars, bicycles, and other vehicles.

**Claims.**—(1.) A tire having a flat thick tread of india-rubber for the purpose of forming a bed for a flexible chain-like band or belt, or other non-skidding device, to lie upon and impress itself into the rubber tire, substantially as described and set forth. (2.) The attachment of a bridle or guard to a belt-chain or any non-skidding device placed around the tread of a tire for the purpose of insuring its coming off on the outside of the wheel only, substantially as described and set forth. (3.) The method of preventing chains, belts, bands, or the like employed on the tread of the tire of a motor vehicle from coming off on the inner side of the wheel, or from flying off tangentially, by means of a bridle of rope, wire, chain, or cord of any suitable material, substantially as described and set forth.

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

No. 16325.—6th May, 1903.—WILLIAM MUIR, of 97, Church Street, Edmonton, Middlesex, England, Gentleman, and CHARLES ROBERT EDWARD BELL, of Bell and Company (Limited), Match-works, St. Leonards Road, Bromley, Essex, England. Improvements in or relating to mechanically igniting material.

**Claims.**—(1.) In a mechanically igniting material, the use of the bright-red allotropic form of non-poisonous phosphorus distinct in its characteristics from ordinary red amorphous phosphorus. (2.) In a mechanically igniting material, the combination with an oxygen-carrying composition of the bright-red allotropic form of phosphorus. (3.) In a mechanically igniting material, the combination of the bright red allotropic form of phosphorus, an oxygen-carrying salt, and a hard powder. (4.) In a mechanically igniting material, the combination of the bright-red allotropic form of phosphorus, chlorate of potash, hard mineral powder, and a binding agent. (5.) The complete mechanically igniting material substantially as described.

(Specification, 2s. 3d.)

No. 16326.—6th May, 1903.—CARL CHRISTIAN LEOPOLD GÆTHER BUDDÉ, of 87, Gl. Kongevej, Copenhagen, Denmark, Engineer. An improved method of sterilising articles of food.

**Claims.**—(1.) A method of sterilising articles of food by the aid of hydrogen peroxide, consisting of mixing the articles of food with a suitable quantity of hydrogen-peroxide and then exposing them for some time to a temperature of 40° C. or more, thereby causing the oxygen in *statu nascendi* disengaged from the hydrogen-peroxide to destroy any microbes contained in the said articles of food, substantially as described. (2.) The method of sterilising articles of food in accordance with the method claimed in claim 1, consisting in heating said articles of food to a temperature of about 40° C. before mixing them with hydrogen-peroxide, and afterwards treating them substantially in the manner described. (3.) The method, when articles of food are sterilised according to the method explained in claims 1 or 2, of mixing the articles of food with just so large a quantity of hydrogen-peroxide (which quantity may be determined by experiments) as may, during the process, be completely decomposed into water and oxygen by the organic substances in the articles of food, so that these may be perfectly free from hydrogen-peroxide when the treatment is completed, substantially as described. (4.) The method, when articles of food are sterilised according to the method explained in claims 1 or 2, of adding to the articles of food which have been so treated, minimised quantities of enzyme, for instance, a sterile infusion of common press-yeast in order to decompose any eventual surplus of hydrogen-peroxide, substantially as described.

(Specification, 6s. 6d.)

No. 16328.—11th May, 1903.—HERBERT MARTIN ROCKELL, Creamery-manager, and FORRESTER THOMSON, Dairy-factory Manager, both of Rangiwahia, New Zealand. An improved method of withdrawing liquids from receptacles in proportionate quantities to the amounts placed therein.

**Claim.**—The improved method of withdrawing liquids from receptacles in proportional quantities to the amounts

placed therein, the same consisting in placing an open-ended tube perpendicularly within the receptacle, hermetically sealing the top end of the tube, and removing it from the receptacle, as specified.

(Specification, 2s. 6d.)

No. 16329.—8th May, 1903.—JAMES FOSTER, of Stuart Street, Caversham, Otago, New Zealand, Printer. Improved book and music binder.

**Claims.**—(1.) The use of lengths of wire placed in sections of music, publications, or other flexible material, and placed on a flexible holder and fastened together by the covers of the book to be bound. (2.) The use of leather holders or other flexible material used for the same purpose.

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

No. 16330.—8th May, 1903.—CHARLES BOWTELL SMITH, of 343, Queen Street, Melbourne, Victoria, Printer (assignee of Edward Milton Wildey, of 219, Clarence Street, Sydney, New South Wales, Stationer). Improved counter-check sale-book for traders and others.

**Claims.**—(1.) A counter-check sales-book comprising a strip of suitably printed, numbered, cut, and perforated paper first folded sidewise on itself along a perforated line *a* to have the fore edge of each pair of leaves or checks connected, then folded zigzag fashion to bring the checks above one another in book form, the stub strips being continuous or uncut at the head and tail folds at *a*<sup>2</sup>, combined with a carbon-sheet which is bound along with the stub strips, substantially as described and shown. (2.) A counter-check sales-book comprising a strip of suitably printed, numbered, cut, and perforated paper first folded sidewise on itself, then folded zigzag fashion to bring the checks above one another in book form, with each sheet or check connected to the stub at a perforated line *b*<sup>1</sup> and with its fore edge free, the stub strips being continuous or uncut at the head and tail folds at *a*<sup>2</sup> and back fold *a*<sup>3</sup>, combined with a carbon-sheet which is secured to the lower cover and folded over the free edges to between the original and duplicate checks, substantially as described and shown. (3.) A counter-check sales-book comprising a cut, perforated, and folded strip of paper having a carbon-sheet combined with it, all substantially as described and shown.

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

No. 16337.—13th May, 1903.—EDWIN NORTON, of 116, Riverside Drive, New York, United States of America, Manufacturer. Bottle-cap.

**Claims.**—(1.) The combination with a bottle, jar, or vessel having a cap-holder shoulder at its mouth or end, of a cork or sealing-disc, a cork-holder disc *B* having a flange *b* and a short segmental depending crimping-flange *b*<sup>1</sup>, and a clamp disc *D* having a depending segmental crimping-flange *d* supplementing the crimping-flange on the cork-holder disc, and provided with an integral raised portion forming a socket or groove for insertion of a nail or other simple instrument between the cork-holder disc and clamp-disc for wedging or prying off the clamp disc and opening the bottle, jar, or vessel, the entrance to said groove or socket coinciding with the notch or divided portion of said crimping-flange on the clamp disc, and the segmental crimping-flange on the clamp disc having rounded or inclined ends, substantially as specified. (2.) The combination with a vessel having a cap-holder shoulder at its mouth or open end, of a cork or sealing-disc, a cork-holder disc, and a clamp disc having a segmental or divided crimping-flange and an integral raised portion extending across the same to receive a nail or other instrument between the cork-holder disc and clamp disc, substantially as specified. (3.) The combination with a vessel having an external shoulder at its mouth, of a cork or sealing-disc, and a clamp disc having a segmental or divided crimping-flange and a raised portion forming a groove or socket for insertion of a nail or other instrument, substantially as specified. (4.) The combination with a vessel having an external shoulder at its mouth, of a cork or sealing-disc, and a clamp disc having a segmental or divided crimping-flange and a raised portion forming a groove or socket for insertion of a nail or instrument, the entrance to said groove or socket being adjacent to the notch or division in the crimping-flange of the clamp disc, substantially as specified. (5.) The combination with a vessel having an external shoulder at its

mouth, of a cork or sealing-disc, and a clamp disc having a segmental or divided crimping-flange and a raised portion forming a groove or socket for insertion of a nail or instrument, the entrance to said groove or socket being adjacent to the notch or division in the crimping-flange of the clamp-disc, and the crimping-flange on the clamp-disc at the notch or division therein having inclined or rounded heads, substantially as specified. (6.) In a closure for bottles, jars, or vessels, a clamp disc having a segmental crimping-flange and an integral raised portion extending across the same forming a groove or socket for reception of an opening-instrument under said clamp disc, substantially as specified. (7.) In a closure for bottles, jars, or vessels, a clamp disc having a segmental crimping-flange and an integral raised portion extending across the same forming a groove or socket for reception of an opening-instrument under said clamp disc, the entrance to said groove or socket being adjacent to the notch or division in said crimping-flange, substantially as specified. (8.) In a closure for bottles, jars, or vessels, a cork-holder disc and a clamp disc having a segmental crimping-flange and an opening for insertion of an instrument between the clamp disc and cork-holder disc, substantially as specified. (9.) In a closure for bottles, jars, or vessels, the combination with a cork-holder disc, of a clamp disc having a crimping-flange and an opening for insertion of an instrument between said discs, substantially as specified. (10.) In a closure for bottles, jars, or vessels, a cork-holder disc having a short segmental crimping-flange, and a clamp disc having a segmental crimping-flange, and provided with an opening for insertion of an instrument between said discs, substantially as specified. (11.) In a closure for bottles, jars, or vessels, a cork-holder disc having a segmental crimping-flange at less than half its circumference, and a clamp disc fitting on top of said cork-holder disc having a crimping-flange at more than half its circumference supplementing said segmental crimping-flange on the cork-holder disc, substantially as specified. (12.) In a closure for bottles, jars, or vessels, a pair of sheet-metal discs provided with segmental crimping-flanges, the crimping-flange on the inner disc extending for less and on the outer disc for more than half the circumference, the outer disc having an opening for insertion of an instrument between the discs, substantially as specified. (13.) In a closure for bottles, jars, or vessels, a pair of sheet-metal discs, the upper or outer one being provided with a crimping-flange extending for more than half its circumference, and with a central raised portion across it for engaging an instrument for prying the clamp disc off, substantially as specified. (14.) In a closure for bottles, jars, or vessels, a clamp disc having a crimping-flange extending for more than half its circumference, and a socket across its top to receive an instrument for prying it off, substantially as specified.

(Specification, 8s.; drawing, 1s.)

No. 16338.—13th May, 1903.—JAMES EBEN TONKIN, of 74, Missenden Road, Camperdown, Agent, CHARLES BARNETT, of 25, Robert Street, Petersham, Gentleman, and THOMAS DAVID JONES, of Rowe Street, Sydney, Contractor, all of New South Wales. Fire-escape appliance.

*Claims.*—(1.) In combination, two pendent ropes, a block through which the ropes will pass, two vertical sheaves within the block on horizontal axes between which the ropes will pass, a brake-appliance whereby the speed of the descent of the block may be under the immediate control of the passenger, and a ring or other means for attaching the block to the body of the wearer, as set forth. (2.) In combination, two ropes pendent from the window-opening, a block-frame, and two grooved pulleys within the block-frame between which the pendent ropes will pass, and a ring or other means for attaching the block to the body of the wearer, as specified. (3.) In combination, two ropes pendent from the window-opening, a block-frame and two grooved pulleys on horizontal axes within the block-frame between which the pendent ropes will pass, a neck projecting upwards from the block-frame and supporting a bell-crank lever the short arm of which carries a roller adapted to press the rope, against a friction-surface on the inside of the neck, thus constituting a brake, and a ring or other means for attaching the block to the body of the wearer, as set forth.

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

No. 16340.—13th May, 1903.—EUGENE DE KLEIST, of North Tonawanda, County of Niagara, State of New York, United States of America. Improvements in automatic musical instruments.

*Claims.*—(1.) The combination with a wind-chest, a sound-controlling member, and a motor-pneumatic for operating

said member, of a valve-chamber communicating with the motor-pneumatic and provided in opposite walls with exhaust and vent ports opening into said chest and the atmosphere respectively, oppositely opening valves applied to said ports, a sliding rod or stick arranged between said valves and bearing loosely against both of the same, and an actuating-device for said valves. (2.) The combination of an exhaust-chest having a channelled wall divided horizontally into separate superposed sections, two or more rows of motor-pneumatics, and two or more rows of corresponding valve-cases connected with said pneumatics by the channels in said wall, and each having an exhaust-port connecting with said exhaust-chest, a vent-port which opens into the atmosphere, and oppositely opening valves applied to said ports, each of said channelled wall-sections carrying a row of said motor-pneumatics and their complementary row of valve-cases. (3.) The combination with an exhaust-chest and a sound-controlling member of a motor-pneumatic for operating said member, a valve-case arranged partly inside and partly outside of said chest and communicating with the motor-pneumatic, and provided within the chest with an exhaust-port and outside thereof with a vent-port, oppositely opening valves applied to said ports and operating in unison, and an actuating-device for said valves. (4.) The combination with an exhaust-chest, a sound-controlling member, and a motor-pneumatic for operating said member, of a horizontal valve-case communicating with said motor-pneumatic and having a vent-port and an inclined overhanging wall provided with an exhaust-port, a depending valve applied to said port and hinged to the inner side of said overhanging wall, and a valve applied to said vent-port and opening in the reverse direction from said exhaust-valve. (5.) The combination with an exhaust-chest, a sound-controlling member, and a motor-pneumatic for operating said member, of a horizontal valve-case communicating with said motor-pneumatic and having an inclined overhanging wall provided with an exhaust-port which communicates with said exhaust-chest, and an opposing wall inclined in the same direction and containing a vent-port, depending exhaust and vent valves applied to said ports respectively and hinged to the inner sides of said inclined walls, and means for operating said valves in unison. (6.) The combination with an exhaust-chest, a sound-controlling member, and a motor-pneumatic for operating said member, of a horizontal valve-case communicating with said motor-pneumatic and having an exhaust-port which communicates with said exhaust-chest, and an inclined wall provided with a vent-port, a swinging vent-valve applied to said vent-port on the inner side of said inclined wall, and an exhaust-valve applied to said exhaust-port and opening in the reverse direction to said vent-valve. (7.) The combination with a wind-chest, having a channelled wall and a number of sound-controlling members, of motor-pneumatics for operating said members, a plurality of valve-cases communicating with said pneumatics through the channels of said wall and through opposing apertures in the walls of said channels, horizontal guide-bars extending continuously across a number of said apertures, each of said valve-cases being provided with exhaust and vent ports communicating with said wind-chest and the atmosphere respectively, and oppositely opening valves applied to said exhaust and vent ports, and a valve-rod arranged between the valves of each case and sliding in said guide-bars. (8.) The combination with an exhaust-chest and a sound-controlling member, of a motor-pneumatic for operating said member, a valve-case arranged partly inside and partly outside of said chest and communicating with the motor-pneumatic, and provided within the chest with an exhaust-port and outside thereof with a vent-port, oppositely opening valves applied to said ports and operating in unison, an actuating-pneumatic for said valves having a vent or tracker-duct, a tracker-valve controlling said duct, and means for operating said tracker-valve.

(Specification, 10s. 6d.; drawings, 4s.)

No. 16341.—13th May, 1903.—THE IVEL AGRICULTURAL MOTORS, LIMITED, of 45, Great Marlborough Street, Regent Street, London, England, Engineers (assignees of Dan Albone, of the Ivel Cycle-works, Biggleswade, Bedford, England, Engineer). Motor tractor for agricultural purposes, also applicable as a portable motor.

*Claims.*—(1.) A mechanical tractor for agricultural purposes consisting of a frame, of a balance-gear driving-axle carried thereby, of a pair of driving-wheels carried by said axle, of a wheel carried by said frame and adapted to have angular movement imparted to it for steering purposes, of an internal-combustion engine carried on said frame, of gearing for transmitting the motion of the motor to the

driving-wheels, and of means for attaching the frame of the tractor to the implement to be drawn as set forth. (2.) A mechanical tractor for agricultural purposes consisting of a frame, of a balance-gear driving-axle carrying a pair of driving-wheels, of a wheel carried by said frame in advance of the driving-wheels and adapted to have angular movement imparted to it for steering purposes, of means for imparting steering motion to the said wheel, of an internal-combustion engine mounted on said frame, of a transversely arranged countershaft mounted in bearings on said frame, of gearing for transmitting motion from the motor to the countershaft in either direction, of gearing for transmitting motion from the countershaft to the balance-gear of the driving-axle, of a carburettor mounted on said frame, of a water-storage tank mounted on said frame, of a hydrocarbon-storage tank mounted on said frame, of one or more driving-pulleys mounted either on the crankshaft of the motor or on the countershaft, of a draw-bar for connecting the tractor to the implement to be drawn as set forth. (3.) The improved motor tractor for agricultural purposes substantially as described, and illustrated in the drawing.

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

No. 16342.—13th May, 1903.—WILLIAM DEERING, of Evanston, Cook County, Illinois, United States of America, Gentleman (assignee of George Henry Ellis, of 1142, Dunning Street, Chicago, Cook County aforesaid). Improvements in twine.

*Claims.*—(1.) A twine for binding grain and for similar purposes, consisting of a mixture of uncarded and unheckled soft fibre, as flax, hemp, &c., and a hard fibre, as manila, sisal, &c., mixed and twisted, substantially as described. (2.) A single strand of twine for binding grain and for similar purposes, consisting of a mixture of uncarded and unheckled soft fibre, as flax, hemp, &c., and a hard fibre, as manila, sisal, &c., mixed and twisted, substantially as described. (3.) A twine for binding grain and for similar purposes, consisting of a mixture of unretted soft fibre, as flax, hemp, &c., and a hard fibre, as sisal, substantially as described. (4.) A twine for binding grain and for similar purposes, consisting of a mixture of unretted and uncarded soft fibre, as flax, hemp, &c., and a hard fibre, as manila, sisal, &c., substantially as described. (5.) A twine for binding grain and for similar purposes, consisting of a mixture of unretted, uncarded, and unheckled soft fibre, as flax, hemp, &c., and a hard fibre, as sisal, manila, &c., substantially as described.

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

No. 16348.—14th May, 1903.—ALEXANDER GILLIES, of Terang, Victoria, Dairyman. Improvements in pneumatic milking-apparatus.

*Claims.*—(1.) In pneumatic milking-apparatus, a teat-cup having a rigid casing, a flexible lining with a small cup at the bottom held together by a cap and a nut, said cap having a boss fitting a socket in the base of the casing, substantially as set forth and illustrated. (2.) In pneumatic milking-apparatus, a teat-cup having a rubber mouthpiece provided with a flat annular rigid reinforcement, substantially as set forth and illustrated. (3.) In pneumatic milking-apparatus, an air discharge-pipe fitted with a regulating-cock and connected direct with the suction-pipe, substantially as and for the purpose set forth, and as illustrated.

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

No. 16356.—11th May, 1903.—CHARLES DANIEL BRENT, of Cromwell, Otago, New Zealand, Dredgeman. Fastener for shoes and the like.

*Claim.*—(1.) The general construction, arrangement, and combination of parts composing my fastener for shoes and the like, all substantially as and for the purpose described with reference to the drawings. (2.) A fastener for shoes and the like consisting of a curved body portion provided at each end with hooks, one round and flat and longer than the other, said longer hook being adapted to enter and remain in an eye such as of a shoe, the other adapted to be engaged readily in the other eye when the edges of the shoe-opening are pressed together, substantially as described. (3.) A fastener for shoes and the like consisting of two portions,

one adapted to screw into the other, each provided with a hook at one end, one longer than the other, said long hook being adapted to be inserted through and be clenched in an eye such as of a shoe, the other adapted to be readily engaged an opposite eye when the edges of the shoe-opening are pressed together, substantially as described.

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

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.

Extracts from the drawings accompanying the foregoing complete specifications appear at the end of this *Gazette*.

F. WALDEGRAVE,  
Registrar.

#### Provisional Specifications.

Patent Office,  
Wellington, 27th May, 1903.

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

No. 16290.—29th April, 1903.—JOHN O'NEIL, of Christchurch, New Zealand, Hotelkeeper. An automatic windmill-lubricator.

No. 16295.—4th May, 1903.—SAMUEL DE BEEP, of High Street, Roslyn, Dunedin, New Zealand, Apprentice Fitter. An improved fire-hose coupling.

No. 16327.—11th May, 1903.—HAROLD JAMES BETTANY, of Examiner Street, Nelson, New Zealand, Carpenter. Improved brake-apparatus and means for operating same, and for inflating the tires of bicycles, motor cars, and similar vehicles.

No. 16331.—8th May, 1903.—ROBERT PEARCE GIBBONS, of Kopu, Thames, New Zealand, Sawmill-owner. A galvanic sole for boots and shoes.

No. 16334.—12th May, 1903.—WILLIAM JERMYN, of Masterton, New Zealand, Labourer. Improvements in or relating to combs.

No. 16343.—13th May, 1903.—SAMUEL LINTERN, of Strathmore, New Zealand, Labourer. Improved means for coupling and uncoupling railway-vehicles.

No. 16344.—13th May, 1903.—HENRY DAVID TURNER, of Carterton, Wellington, New Zealand, Tea-merchant. An improvement in the manufacture of independent letters to be used for signs and general advertising.

No. 16345.—14th May, 1903.—WILLIAM ALBERT CORNELL, of 220, Williams Road, Toorak, near Melbourne, Victoria, Estate Agent. Improved means of attaching brake-drums to the hubs of vehicle wheels.

No. 16346.—14th May, 1903.—ERNEST WINNER LLOYD, of Bobinawarrab, Victoria, Farmer. Improved method of and apparatus for measuring or weighing fresh or skim milk.

No. 16351.—14th May, 1903.—JOSEPH COWPER BOOTH, of 31, Izett Street, Prahran, Victoria, Mercer. Improved attachment for adjusting shirt-sleeves.

No. 16352.—12th May, 1903.—WILLIAM MURPHY, of Arrowtown, New Zealand, Coachbuilder. Improved trap-seat regulator.

No. 16353.—12th May, 1903.—WILLIAM MURPHY, of Arrowtown, New Zealand, Coachbuilder. Improvements in brakes for vehicles.

No. 16354.—12th May, 1903.—WILLIAM MURPHY, of Arrowtown, New Zealand, Coachbuilder. Tire setter and extractor.

No. 16355.—12th May, 1903.—ARTHUR BALL, of Naseby, New Zealand, Builder. Spring-hinge.

No. 16357.—15th May, 1903.—CHARLES FREDERICK GIBSEN, of Uruti Road, Taranaki, New Zealand, Settler. An improved adjustable detachable hood for employment in connection with waterproofs and the like.

No. 16358.—15th May, 1903.—CARL FERDINAND BÜNZ, of 173, Armagh Street, Christchurch, Canterbury, New Zealand, Professor of Music (assignee of Francis J. Rottman, of 167, New Bond Street, London, England, Medical Electrician). An improved instrument for the treatment of nervous and other constitutional diseases.

No. 16359.—13th May, 1903.—GIDEON BISH, Blacksmith, and JOHN JOHNSTON, Wheelwright, both of Bombay, Auckland, New Zealand. An improved machine for making mortises.



No. 16372.—19th May, 1903.—JAMES MCKENZIE MACINTOSH, of 40, Albert Street, Brunswick, Victoria, Engineer. An improved sash-fastener.

No. 16374.—19th May, 1903.—WILLIAM GEORGE HANCOX, of Queen Street, Petone, New Zealand, Storeman. An improved combined handle and support for tins and cases.

No. 16375.—14th May, 1903.—ROBERT PEARCE GIBBONS, of Kopu, Thames, New Zealand, Sawmill-owner. A duplex galvanic plate for boot and shoe soles, corsets, waist-belts, armlets, and suchlike.

No. 16376.—19th May, 1903.—ALEXANDER PARKER, of Dannevirke, New Zealand. An improved dust and draught excluder for doors.

No. 16377.—19th May, 1903.—ROBERT CONGREVE, of 127, Colombo Street, Christchurch, Canterbury, New Zealand, Ironmonger. An improved cycle-lock.

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 14th to 27th May, 1903, inclusive:—

No. 14515.—W. Keane and B. Hogg, auriferous-material stirrer.

No. 14541.—J. Bedford and T. F. Longland, windmill.

No. 14556.—H. Pennington and M. T. West, milk cooler and aerator.

No. 14558.—G. Davidson, tripping-block for log-hauling.

No. 14774.—E. T. Towgood, Y. S. Towgood, and J. Allison, tobacco-pipe.

No. 14857.—C. W. Haines, spark-arrester.

No. 14859.—H. Gunn, spark-arrester.

No. 14899.—S. Shaw, gas-burner fitting.

No. 14955.—H. H. Henderson, floor and wall duster, &c.

No. 15202.—R. Cosslett, tap.

No. 15236.—J. Sigley, newspaper-delivery box.

No. 15637.—A. Jewiss and G. Inglis, glazing corrugated iron.

No. 15727.—K. Schnetzer, soap-moulding machine.

No. 15981.—C. S. Alington, grass-seed stripper.

No. 15990.—C. W. Stanton, condensing-apparatus.

No. 15994.—A. J. Ellis, tape-embossing machine (H. Casler and H. N. Marvin).

No. 16017.—G. Westinghouse, steam-turbine.

F. WALDEGRAVE,  
Registrar.

#### Letters Patent on which Fees have been paid.

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

##### SECOND-TERM FEES.

No. 11598.—M. G. Heeles, gold-saving blanketing. 18th May, 1903.

No. 11614.—E. Jordan and G. T. Rogers, moulding metal sheet. 18th May, 1903.

No. 11639.—H. Schneider, corset. 19th May, 1903.

##### THIRD-TERM FEES.

Nil.

F. WALDEGRAVE,  
Registrar.

#### Subsequent Proprietor of Letters Patent registered.

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

No. 15960.—The Albion Battery Company, Limited, of 7, Portman Street, Portman Square, London, England, secondary battery.—[C. T. J. Oppermann.] 14th May, 1903.

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 14th to the 27th May, 1903, inclusive:—

No. 15115.—C. O. Anderson, saw-set.

No. 15116.—F. Montague and J. Laffey, fire-escape, &c.

No. 15118.—F. Soper, cycle-crank.

No. 15123.—J. F. Kilburn, wire-strainer.

No. 15128.—C. N. Hodder and J. Rogers, ruler and pad.

No. 15130.—G. F. F. Davis and F. C. Williams, plate.

No. 15132.—St. C. N. H. Macdonald, rotary engine.

No. 15133.—J. B. Poynter, picking up ball.

No. 15135.—P. J. Brown, closing leak in gum-boot, &c.

No. 15136.—S. Williams and J. Perks, cooking-range attachment.

No. 15138.—R. Dunne, hinge.

No. 15140.—G. M. Nichol, bicycle-pedal.

No. 15143.—W. Waters, street-sweeper.

No. 15144.—F. S. Potter, vehicle-spring.

No. 15153.—R. D. Tosswill and T. M. O'Rourke, dredge screen and elevator.

No. 15155.—F. Montague and J. Laffey, fire-escape, &c.

No. 15156.—A. Nightingale, couch.

No. 15161.—C. J. Shipway and H. May, sheep-shears.

No. 15164.—W. T. L. Travers, metallic box-making machinery (F. E. Wattne).

No. 15167.—R. Hollis, J. A. Cockburn, and C. E. Grindrod, spark-arrester.

No. 15172.—W. Borlase, shear-regulator.

No. 15173.—T. Deane, packing tea, &c.

No. 15174.—F. W. Paterson, vote-recorder.

No. 15178.—S. Smith and H. R. Smith, sandal.

No. 15179.—J. H. Stewart and W. Nicol, candlestick.

No. 15182.—C. T. Swanell and W. Lee, breaking clay in sluice-box.

No. 15183.—H. Roberts and J. Bannister, lock.

No. 15184.—M. Foley, J. Parker, and W. S. Wilkinson, advertising.

F. WALDEGRAVE,  
Registrar.

#### Letters Patent lapsed.

LIST of applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 14th to the 27th May, 1903, inclusive:—

No. 14236.—A. G. Kidston-Hunter, grading, &c., auriferous wash.

No. 14239.—A. Cometti, electric starting-machine.

No. 14240.—A. H. P. Noble, *post-mortem* weighing-table.

No. 14259.—A. K. Zimmerman, memorandum-holder.

No. 14262.—J. R. Brunt and R. C. Pitt, pneumatic tire.

No. 14271.—F. L. Stapp, medicament lotion.

No. 14276.—R. L. H. Murray, acetylene-gas generator.

No. 14277.—D. S. Hyauiason, boiler for range, &c.

F. WALDEGRAVE,  
Registrar.

#### Letters Patent void.

LIST of Letters Patent void through non-payment of renewal fees from the 14th to the 27th May, 1903, inclusive:—

##### THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 11372.—W. Mentiplay, amalgamating, &c., apparatus.

No. 11374.—J. Warren, ore-pulveriser.

No. 11378.—J. and E. E. Pulman, liming furs, &c. (J. and E. E. Pulman and E. E. M. Payne).

No. 11379.—E. March, registering machine.

No. 11386.—W. Turnbull, draining off liquor.

No. 11391.—T. C. Graham, J. H. Kellogg, and W. K. Kellogg, extracting oil from nuts.

No. 11393.—J. G. Massie, opening up mine.

No. 11394.—H. L. Sulman, gold extraction.

No. 11396.—Türr's Acetylene Gas Syndicate, Limited, acetylene-gas producer (R. Türr).

No. 11397.—Türr's Acetylene Gas Syndicate, Limited, acetylene-gas burner (R. Türr).

No. 11400.—H. A. Scott, sinking post-hole.

No. 11403.—E. Gilshnan, jun., compass, &c.

No. 11404.—W. P. Trevaskis and G. Archer, air-passage butter-box.

##### THROUGH NON-PAYMENT OF THIRD-TERM FEES.

No. 8288.—Sir R. J. Loyd-Lindsay, cycle (B. and F. Ljungstrom).

F. WALDEGRAVE,  
Registrar.

*Applications for Registration of Trade Marks.*

Patent Office.

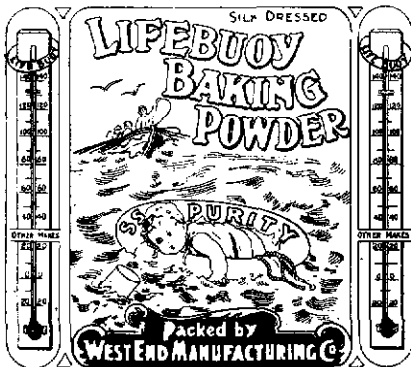
Wellington, 27th May, 1903.

**A** PPLICATIONS 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: 4107.

Date: 7th March, 1903.

TRADE MARK.



The essential particulars of this trade mark are the devices, the combination of devices, and the word "Life-buoy"; and applicants disclaim any right to the exclusive use of the added matter, excepting so far as it relates to their name and address.

NAME.

WILSON AND WOOD, of 222, Cashel Street, Christchurch, in the Colony of New Zealand, Grocers and Provision-merchants.

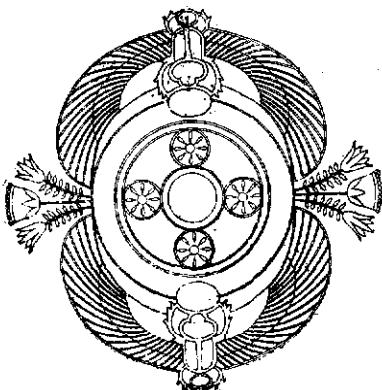
No. of class: 42.

Description of goods: Baking-powder.

No. of application: 4188.

Date: 6th May, 1903.

TRADE MARK.



No. of class: 42.

Description of goods: All food-products except butter.

NAME.

THE SINGER MANUFACTURING COMPANY, of 42 and 43, St. Paul's Churchyard, in the City of London, England; also of the European Works, Kilbowie, Glasgow, Scotland; and of Elizabethport, New Jersey, United States of America, trading as Sewing-machine Manufacturers and Dealers.

No. of class: 6.

Description of goods: Sewing-machines and appurtenances.

No. of application: 4189.

Date: 6th May, 1903.

TRADE MARK.



NAME.

THE SINGER MANUFACTURING COMPANY, of 42 and 43, St. Paul's Churchyard, in the City of London, England; also of the European Works, Kilbowie, Glasgow, Scotland; and of Elizabethport, New Jersey, United States of America, trading as Sewing-machine Manufacturers and Dealers.

No. of class: 6.

Description of goods: Sewing-machines and appurtenances.

No. of application: 4197.

Date: 12th May, 1903.

TRADE MARK.

The word

**HONEYSUCKLE.**

NAME.

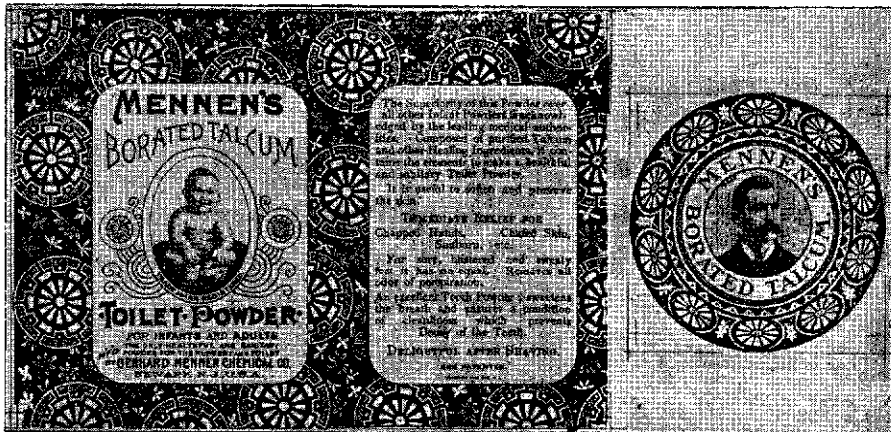
OTIS McALLISTER AND Co., of San Francisco, United States of America.

No. of class: 42.

Description of goods: All food-products except butter.

No. of application : 4198.  
Date : 13th May, 1903.

TRADE MARK.



The essential particulars of the trade mark are the following— a pair of panels on an ornamental background, one panel containing the representation of a child, the circular border around the photo, being above the bottle; and any right to the exclusive use of the added matter is disclaimed.

NAME.

THE GERHARD MENNEN CHEMICAL COMPANY, a corporation organized under the laws of the State of New Jersey, United States of America, and domiciled at 42, Orange Street, in the City of Newark, in the County of Essex, in the said State of New Jersey, United States of America, Manufacturing Chemists.

No. of class : 48.  
Description of goods : Toilet-powder.

No. of application : 4200.  
Date : 13th May, 1903.

TRADE MARK.  
The word  
**EXPRESS.**

NAME.  
KEITH STUART RAMSAY, of Vogel Street, Dunedin, New Zealand, Oil and Shipping Agent.

No. of class : 47.  
Description of goods : Machinery oils and lubricants.

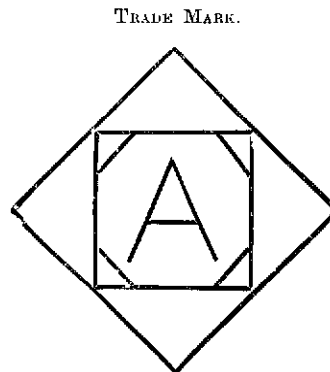
No. of application : 4203.  
Date : 15th May, 1903.

TRADE MARK.  
The word  
**DEFIANCE.**

NAME.  
WRIGHT, STEPHENSON, AND Co., of High Street, Dunedin, New Zealand, General Merchants.

No. of class : 2.  
Description of goods : Artificial manure.

No. of application : 4205.  
Date : 18th May, 1903.



NAME.  
THE ANSONIA CLOCK COMPANY, of No. 99, John Street, New York, in the United States of America, and No. 23, Fore Street, in the City of London, England.

No. of class : 10.  
Description of goods : Horological instruments.

F. WALDEGRAVE,  
Registrar.

*Trade Marks registered.*

**L**IST of Trade Marks registered from the 13th to the 27th May, 1903, inclusive:—

No. 3200; 3984.—E. W. Bennett. Class 50. (*Gazette* No. 102, of the 11th December, 1902.)

No. 3201; 4081.—The Pacific Polish and Compound Co. Inc. Class 50. (*Gazette* No. 2, of the 8th January, 1903.)

No. 3202; 4034.—A. Clark and Sons, Limited. Class 50. (*Gazette* No. 18, of the 5th March, 1903.)

No. 3203; 4035.—A. Clark and Sons, Limited. Class 38. (*Gazette* No. 18, of the 5th March, 1903.)

No. 3204; 4094.—A. Clark and Sons, Limited. Class 13. (*Gazette* No. 18, of the 5th March, 1903.)

No. 3205; 4095.—A. Clark and Sons, Limited. Class 25. (*Gazette* No. 18, of the 5th March, 1903.)

No. 3206; 4096.—A. Clark and Sons, Limited. Class 40. (*Gazette* No. 18, of the 5th March, 1903.)

No. 3207; 4097.—A. Clark and Sons, Limited. Class 38. (*Gazette* No. 18, of the 5th March, 1903.)

F. WALDEGRAVE,  
Registrar.

*Subsequent Proprietors of Trade Marks registered.*

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

No. 88/454.—W. D. and H. O. Wills (Australia), Limited, of Bedminster, Bristol, England. [Heyde, Todman, and Co.] 16th May, 1903.

No. 89/993.—N. Hingley and Sons, Limited, of Netherton Iron-works, near Dudley, England, Ironmasters. [N. Hingley and Sons.] 20th May, 1903.

F. WALDEGRAVE,  
Registrar.

*Trade Mark Renewal Fees paid.*

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

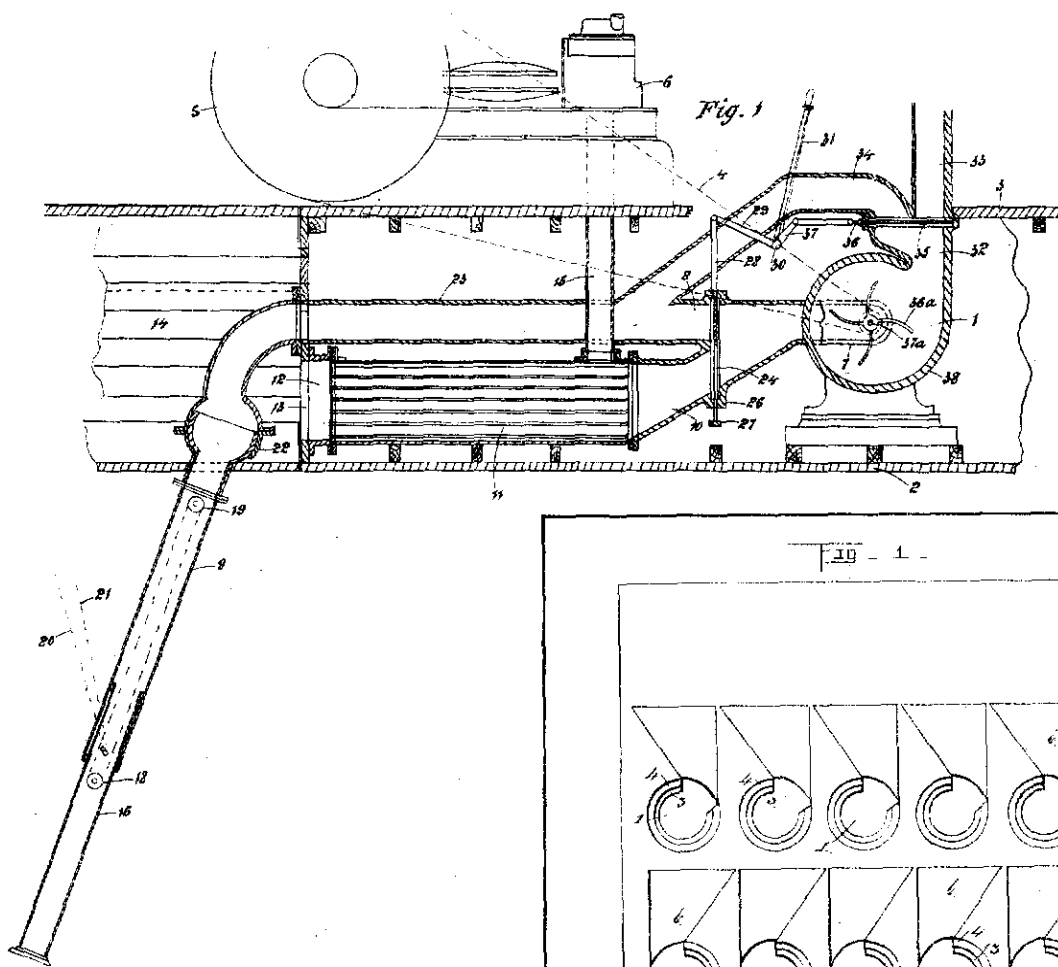
No. 88/2710.—Barlow and Jones, Limited, of Manchester, England. [Two trade marks.] 15th May, 1903.

No. 88/4028.—Barlow and Jones, Limited, of Manchester, England. 15th May, 1903.

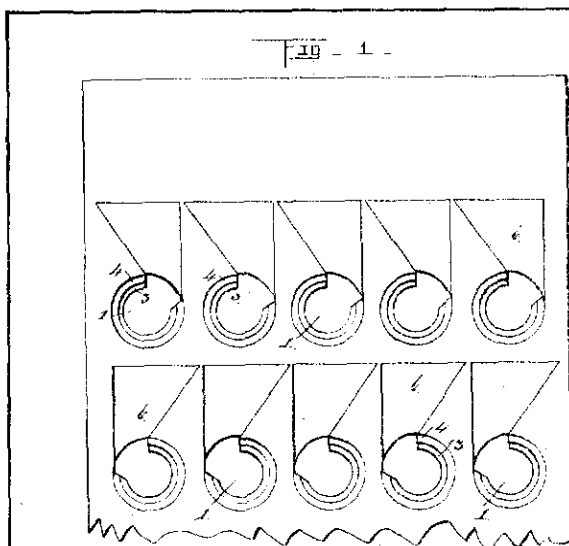
F. WALDEGRAVE,  
Registrar.

# ILLUSTRATIONS OF INVENTIONS.

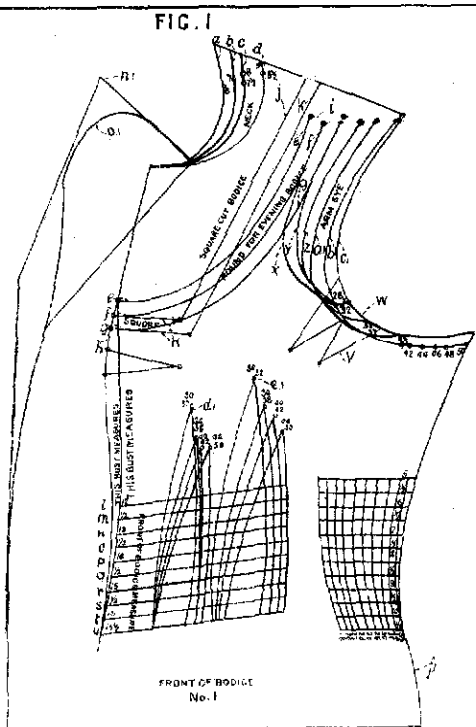
[These illustrations refer to the complete specifications accepted, and advertised in this *Gazette*.]



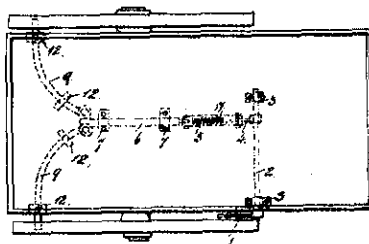
15097  
Shepherd. Dredging Machinery.



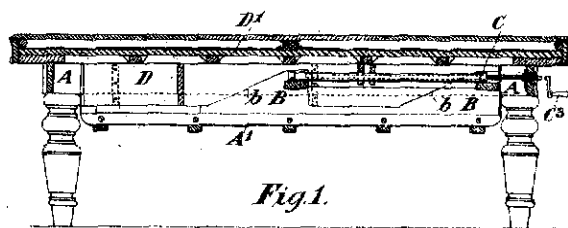
15220  
McLeod and Hurley. Gold-saving Apparatus.



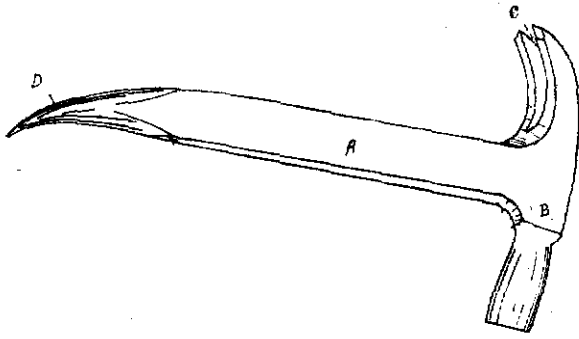
15241  
Roberts. Dress-chart.



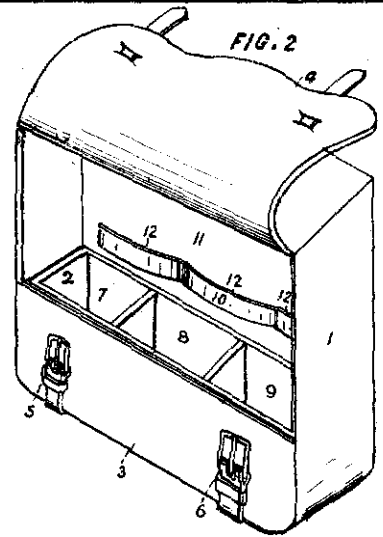
15232  
Cooper. Wheel-lock.



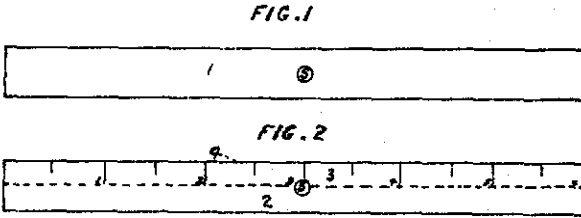
15259  
Alcock. Convertible Billiard-table.



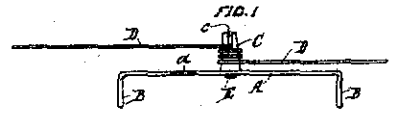
15265  
Gray. Hammer, &c.



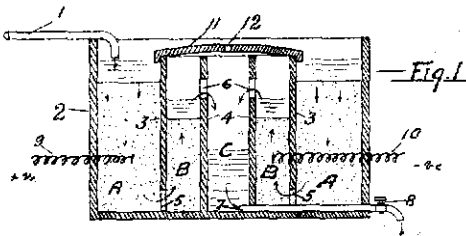
15266  
Gray. Saddle Tool-bag.



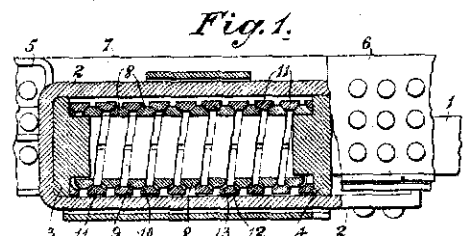
15267  
Gray. Wire-twister, &c.



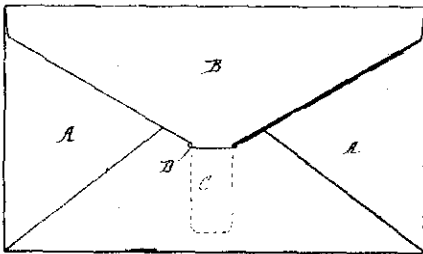
15590  
Hayward. Wire-tightener.



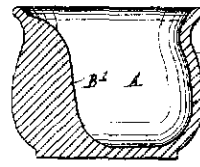
15756  
Anderson. Water-filter.



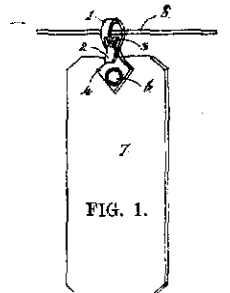
16012  
Hunter, Spring, &c., Resistance Device. (Westinghouse Brake Co. Limited—Westinghouse.)



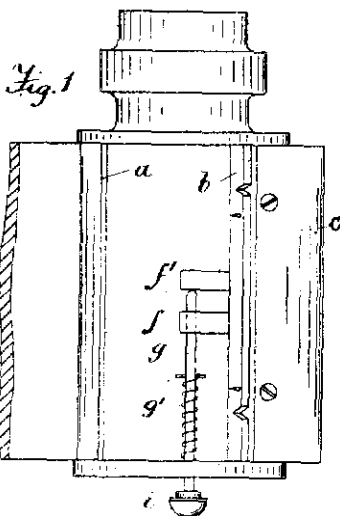
15269  
Hancock. Envelope.



15356  
Dando. Chamber Utensil.



16217  
Wilson and Whitmore. Label, &c., Spring Hook.



15350  
Catt. Boot-finishing Machine.

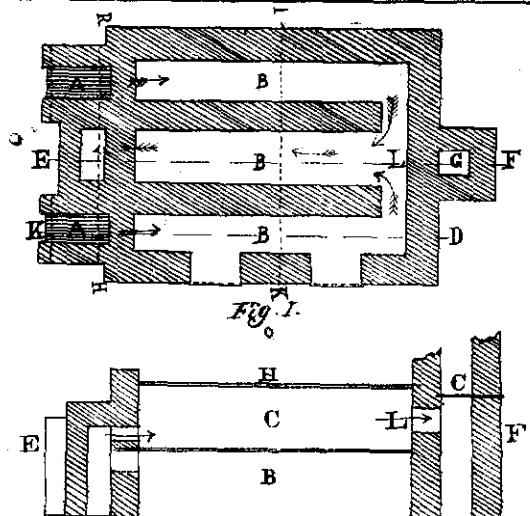
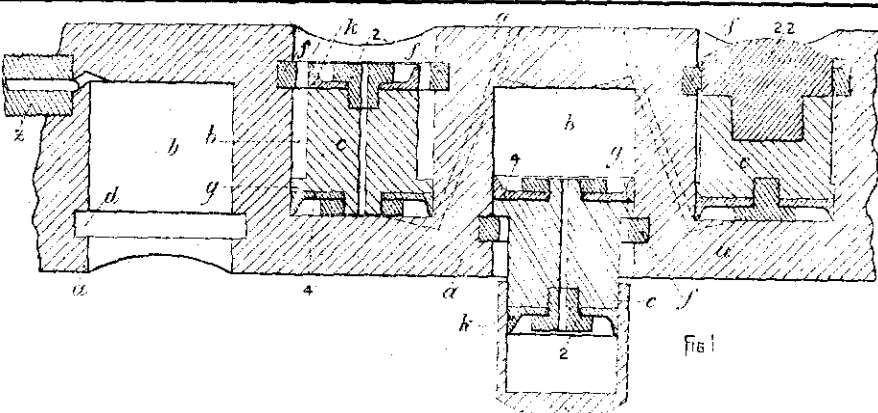
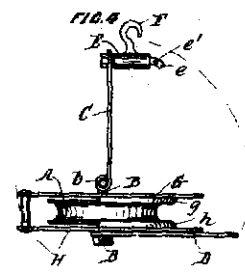


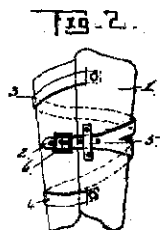
FIG. 6.  
16179  
Nicolis. Waste-converter.



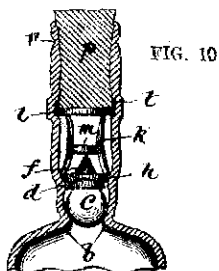
16308  
Tonge, Tonge, jun., and Eaves. Hydraulic-mining Press, &c.



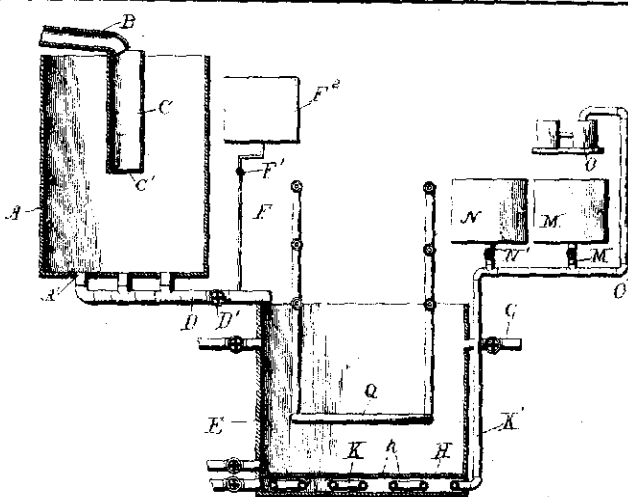
16298  
Bishop. Snatch-block.



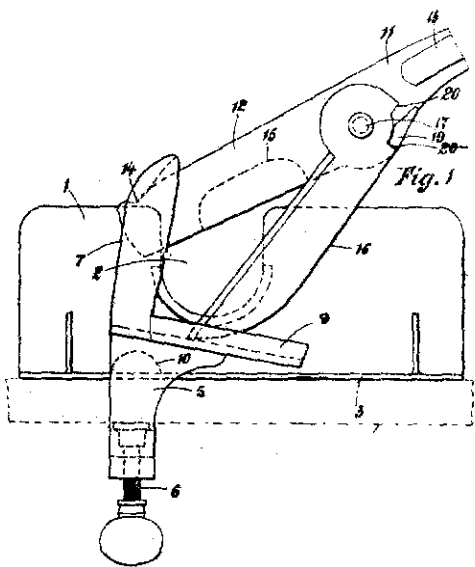
16279  
C. W. and H. S. Wycherley.  
Legging-fastener.



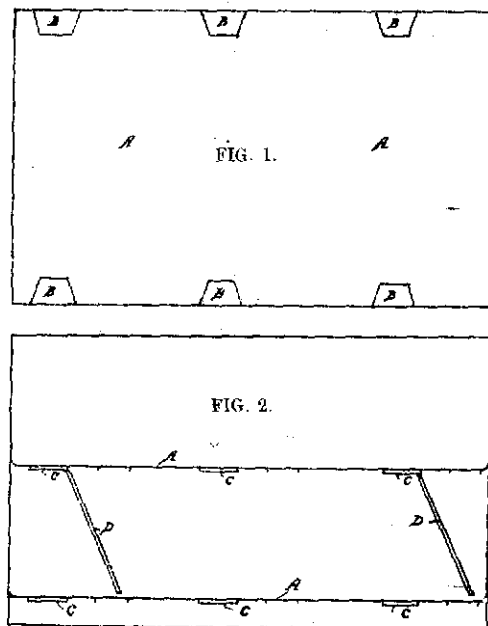
16299  
Jagger. Non-refillable Bottle.



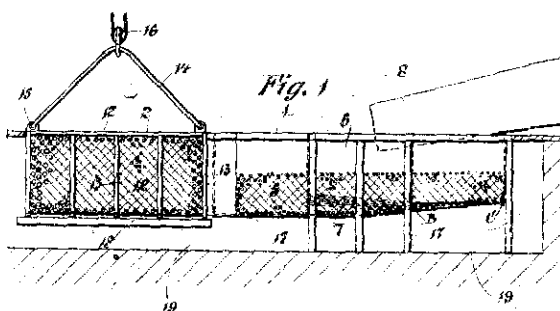
16302  
Grier. Recovery of Precious Metals.



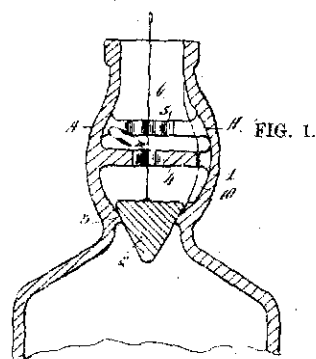
16315  
Wilhelm. Docking and Sewing Apparatus.



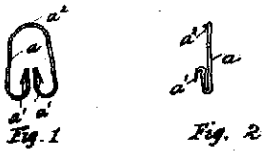
16309  
Beale. Oven-shelf.



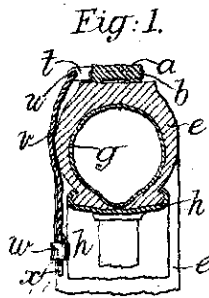
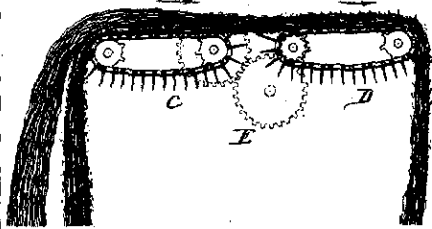
16311  
Ashworth. Wool-washer.



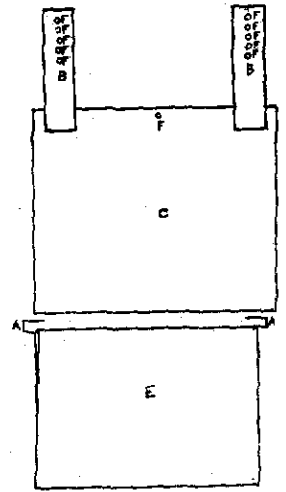
16316  
Johanson. Non-refill Bottle.



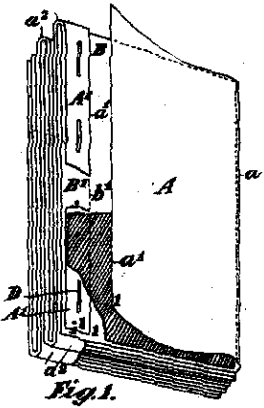
16317  
Montgomery. Tie-clip.



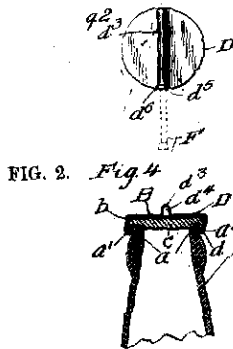
16324  
Butler. Slidding-preventer.



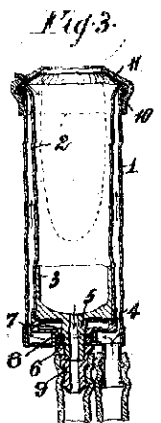
16329  
Foster. Music, &c., Binder.



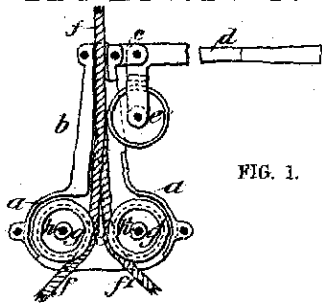
16330  
Smith. Sales-book. (Willey.)



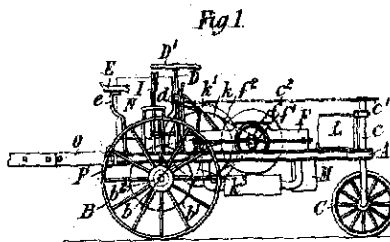
16337  
Norton. Bottle-cap.



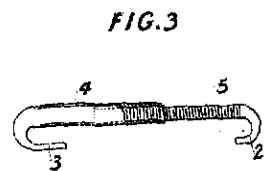
16348  
Gillies. Milking-apparatus.



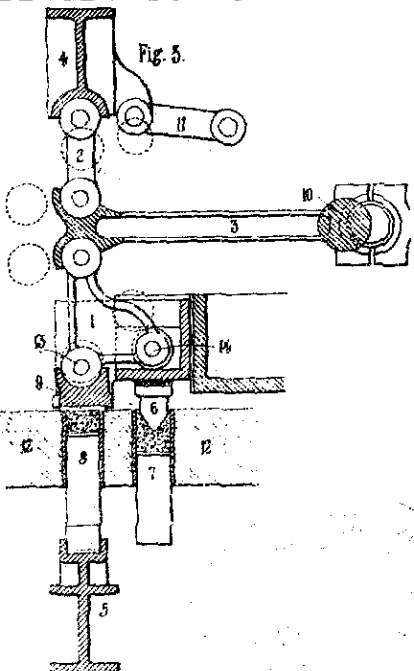
16338  
Tonkin, Barnett, and Jones. Fire-escape.



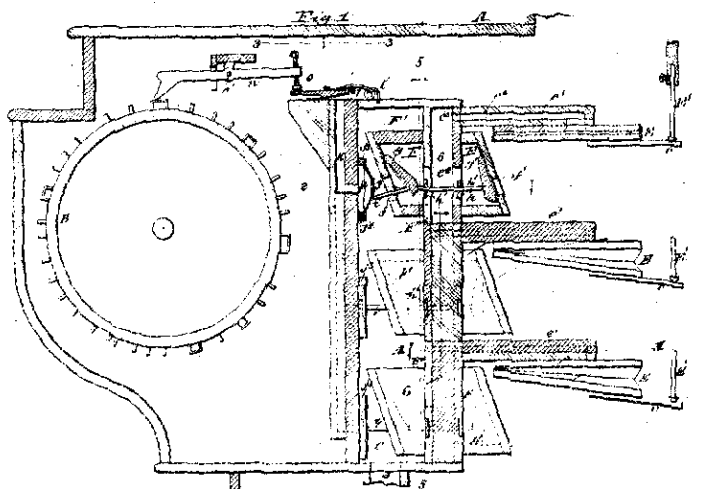
16341  
Ivel Agricultural Motors, Limited.  
Agricultural Motor Tractor. (Albion.)



16356  
Brent. Shoe-fastener.



16336  
Sutcliffe, Spinkman, and Co. and Sutcliffe.  
Lime-sand Brick.



16340  
De Klost. Musical Instrument.



Alphabetical List of Applicants for Letters Patent for Quarter ending 31st March, 1903.

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. Gallery for lamp-chimney ..	15932	30 Jan. ..	13	19 Feb.*
Affleck, C. V., Drummond, N.Z. Shear-regulator ..	15933	5 Feb. ..	13	19 Feb.*
Agar, H., East Devonport, Tas. Window-attachments ..	16045	4 March ..	21	19 March.*
Aggers, W., Auckland, N.Z. Cushioned furniture ..	15885	19 Jan. ..	9	5 Feb.*
Ainsworth, J., Bolivia, N.S.W. (See A. M. White, No. 14827.)				
Aldous, G., Wellington, N.Z. Clip for holding smoking-pipes, &c. ..	15984	16 Feb. ..	13	5 March.
Alexander, W. J., Stratford, N.Z. Hanging sash, &c. ..	16067	9 March ..	37	14 May.
Alington, C. S., Ashburton, N.Z. Stripper for grass-seed ..	15931	13 Feb. ..	18	5 March.
Allen, C. L., Winchester, U.S.A. (See United Shoe Machinery Company, No. 15328.)				
Alley, F. L., San Francisco, U.S.A. (See United Shoe Machinery Company, Nos. 15834 and 15933.)				
Allison, J., and others, Wanganui, N.Z. Tobacco-pipe ..	14774	19 April, 1902..	6	23 Jan.
Ames, W., and others, North Sydney, N.S.W. Fastening rail at joint	15995	18 Feb. ..	25	2 April.
Anderson, C., Sydney, N.S.W. Dressing fur of rabbit-skins, &c. ..	16141	26 March ..	25	2 April.
Anderson, W., Invercargill, N.Z. Clothes-line strainer ..	15889	29 Jan. ..	9	5 Feb.*
Armstrong, Sir W. G., Whitworth, and Co. (Limited), Newcastle-on-Tyne, Eng. Buffer for tipping wagon. (R. Wright)	16133	25 March ..	25	2 April.
Artistic Woodwork Proprietary (Limited), Melbourne, Vic. Decorating woodwork. (H. Smith)	15993	18 Feb. ..	13	5 March.*
Ashcroft, R. W., and others, Palmerston North, N.Z. Preserving eggs, &c.	16095	16 March ..	25	2 April.*
Ashcroft, S., and others, Dannevirke, N.Z. Preserving eggs, &c. ..	16095	16 March ..	25	2 April.*
Ashworth, H., Wellington, N.Z. Utilising waste light from lamps for advertising purposes	16004	20 Feb. ..	18	5 March.*
Aston, W. I., Ashburton, N.Z. Feed-water heater for engines ..	16020	24 Feb. ..	18	5 March.*
Atkin, A. C., Auckland, N.Z. Roadster and gig seat ..	16051	2 March ..	21	19 March.*
Aussel, F. H., Wellington, N.Z. Securing cow's leg ..	15867	14 Jan. ..	6	23 Jan.
Balch, D. W., San Francisco, U.S.A. Electro-magnetic railway traction. (A. A. Honey)	15826	5 Jan. ..	6	23 Jan.*
Baldwin, E. S., and another, Wellington, N.Z. Sterilisation of milk, &c. (S. M. Barre)	15865	14 Jan. ..	6	23 Jan.
Baldwin, E. S., and another, Wellington, N.Z. Discharging sewage upon filter-bed. (G. E. Ridgway)	15968	12 Feb. ..	21	19 March.
Barber, T. W., Westminster, Eng. Mechanically propelled vehicle	16129	21 March ..	29	16 April.
Barre, S. M., Montreal, Canada. (See E. S. Baldwin and H. H. Bayward, No. 15865.)				
Barrie, W. J., Wellington, N.Z. Water-controller for medical battery	15927	31 Jan. ..	13	19 Feb.
Bartlett, J. G., Dunedin, N.Z. Rocker ..	16127	21 March ..	29	16 April.*
Bartlett, J. G., Dunedin, N.Z. Candle-extinguisher ..	16128	21 March ..	25	2 April.*
Barton, A. G., Christchurch, N.Z. Trousers press and stretcher ..	16078	10 March ..	25	2 April.*
Barton, C. H., and another, Wellington, N.Z. Ball-valve for water-cistern	16102	18 March ..	25	2 April.
Barton, F. W., Dunedin, N.Z. Animal-trap ..	15978	11 Feb. ..	3	19 Feb.*
Basil-Jones, E., Wellington, N.Z. Can ..	15862	12 Jan. ..	6	23 Jan.*
Basley, G. W., Auckland, N.Z. Fuel-economizer and smoke-minimiser. (J. H. Foster)	15998	16 Feb. ..	18	5 March.
Beamish, W., Cromwell, N.Z. Mooring-apparatus ..	16058	3 March ..	21	19 March.*
Beaumont, G., Roslyn, Dunedin, N.Z. Locking nuts ..	16149	25 March ..	29	16 April.*
Beaumont, G., Roslyn, Dunedin, N.Z. Locking nuts ..	16175	31 March ..	29	16 April.*
Berghmark, C. S., Stockholm, Sweden. (See Svenska Centrifug Aktie Bolaget, No. 14353.)				
Bettany, H. J., Nelson, N.Z. Revolving chair, table, &c. ..	15862	12 Jan. ..	6	23 Jan.*
Betts, T., and another, Auckland, N.Z. Preventing horses from bolting	15947	4 Feb. ..	13	19 Feb.*
Bish, G., Bombay, N.Z. Adjusting movable bodies and seats of vehicles	15924	27 Jan. ..	9	5 Feb.*
Blaisdell, H. W., Los Angeles, U.S.A. Handling material ..	15886	7 Jan. ..	6	23 Jan.
Bonnington, F., Tinwald, N.Z. Damper-regulator ..	15025	23 June, 1902..	25	2 April.
Borlase, W., Dunedin, N.Z. Animal-trap ..	15735	6 Dec., 1902..	25	2 April.
Bourseau, J. B., and another, Paris, France. Reducing-valve ..	15845	7 Jan. ..	6	23 Jan.
Brand, F. A., Benicia, U.S.A. Disc-plough ..	15925	30 Jan. ..	..	..
Bridgman, A. O., Dunedin, N.Z. Mat-fastener ..	14322	30 April, 1902..	9	5 Feb.
Brierly, W., Auckland, N.Z. Road-sweeper, &c. ..	16070	6 March ..	21	19 March.*
Britten, T. J., Witwatersrand, Transvaal. Settling dust in mining	15840	8 Jan. ..	6	23 Jan.
Brooks, D. M., Wellington, N.Z. Fire-escape ..	15864	13 Jan. ..	9	5 Feb.*
Brooks, D. M., Wellington, N.Z. Securing handles to broom-heads	15980	14 Feb. ..	21	19 March.
Brooks, W. H., Adelaide, S. Aust. Generation of gas ..	15959	10 Feb. ..	13	19 Feb.*
Brown, H., Wellington, N.Z. Crane ..	16101	18 March ..	25	2 April.*
Browne, M., Gisborne, N.Z. Spring-regulator for vehicle ..	15890	16 Jan. ..	9	5 Feb.*
Brownell, J. S., San Francisco, U.S.A. Concentrator ..	15843	7 Jan. ..	6	23 Jan.
Brownley, A. H., and another, Onehunga, N.Z. Securing buttons to garments	14856	8 May, 1902..	13	19 Feb.
Bruce, C. J., and another, Blakehurst, N.S.W. Self-tilting table ..	16122	25 March ..	25	2 April.
Brunner, D., Vienna, Austria. Portable building ..	15651	23 Nov., 1901..	18	5 March.
Bryers, J. J., Rawene, N.Z. Music-leaf turner ..	15916	28 Jan. ..	9	5 Feb.*

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

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Budge, G. S., Takapuna, N.Z. Holding book-leaves ..	16065	9 March ..	21	19 March.*
Busch, A., Totara Valley, N.Z. Cultivator ..	16068	3 March ..	21	19 March.*
Butler, S., Bristol, Eng. Preventing "skidding" of motor cars ..	16178	31 March ..	29	16 April.
Campbell, J. P., Wellington, N.Z. Unidirectional current from alternating-current source. (P. C. Hewitt)	15906	27 Jan. ..	9	5 Feb.
Campbell, W., Wellington, N.Z. Preventing horse running away with vehicle	16072	10 March ..	21	19 March.*
Casler, H., and another, Canastota, U.S.A. (See A. J. Ellis, No. 15994.)				
Cassels, H. O., and another, Invercargill, N.Z. Horse-collar ..	14568	28 Feb., 1902 ..	6	23 Jan.
Chamberlain, W. E., Feilding, N.Z. Seed-sower ..	15806	23 Dec., 1902 ..	21	19 March.
Christensen, H., Copenhagen, Den. Matches, and machinery for making them	15868	12 Jan. ..	6	23 Jan.
Clare, S. F., Campbelltown, N.Z. Grip for handle of shears ..	15946	2 Feb. ..	13	19 Feb.*
Clare, S. F., Campbelltown, N.Z. Rabbit-trap ..	16094	12 March ..	25	2 April.*
Clark, D., Drummond, N.Z. Thinning out plants ..	16015	19 Feb. ..	18	5 March.*
Clarke, G. W., and another, London, Eng. Bandolier and waist-belt rifle-carrier	15996	16 Feb. ..	18	5 March.
Claydon, G., Christchurch, N.Z. Supplying steam and air to furnaces	15061	30 June, 1902 ..	18	5 March.
Clayton Fire Extinguishing and Ventilating Company (Limited), The, London, Eng. Generation of gas for extinguishing fires. (T. A. Clayton)	15844	7 Jan. ..	6	23 Jan.
Clayton, T. A., Philadelphia, U.S.A. (See The Clayton Fire Extinguishing and Ventilating Company, Limited, No. 15844.)				
Collinge, J., jun., and another, South Norsewood, N.Z. Cramp ..	15884	16 Jan. ..	9	5 Feb.*
Collins, J. J., and another, Christchurch, N.Z. Composition for brick and stone work	14930	29 May, 1902 ..	9	5 Feb.
Collins, W. A., Wanganui, N.Z. Device for holding cow's leg ..	15425	19 Sept., 1902 ..	9	5 Feb.
Colwill, J. H., and another, Auckland, N.Z. Roller for typewriter	16093	12 March ..	25	2 April.*
Combes, F. H., and another, Auckland, N.Z. (See A. H. Nathan, No. 15403.)				
Cook, J., Wellington, N.Z. Valve for water-closet cistern ..	14880	15 May, 1902 ..	13	19 Feb.
Cooley Development Company, Boston, U.S.A. Rotary fluid-engine. (J. F. Cooley)	16100	18 March ..	25	2 April.
Cooley, J. F., Boston, U.S.A. (See Cooley Development Company, No. 16100.)				
Coop, J., Kaituna, N.Z. Bridle-bit ..	16087	14 March ..	25	2 April.*
Coop, J., Kaituna, N.Z. Grubber ..	16147	27 March ..	29	16 April.*
Cooper, W. R., Napier, N.Z. Handle for tennis-racquet ..	15876	14 Jan. ..	9	5 Feb.*
Cooze, C. J., Carterton, N.Z. Hairpin ..	16047	4 March ..	21	19 March.*
Corbett, J. C., Auckland, N.Z. Spinning-top ..	16181	31 March ..	29	16 April.*
Corzack, W., and another, Eskbank, Scot. Manufacture of gelatine	15767	17 Dec., 1902 ..	21	19 March.
Corr, C., Westport, N.Z. Gold-saving apparatus ..	16001	17 Feb. ..	18	5 March.*
Corrington, M., New York, U.S.A. Railway-brake ..	15898	29 Jan. ..	9	5 Feb.
Cossar, M. C., Auckland, N.Z. Cucumber-slicer ..	16156	31 March ..	29	16 April.*
Cotterill, J., and another, Wellington, N.Z. Indicating approach of train	14297	2 Dec., 1901 ..	9	5 Feb.
Cotton, F., Hornsby, N.S.W. Utilisation of carbonaceous liquids as fuel	15318	28 Aug., 1902 ..	18	5 March.
Coulson, M., and another, Auckland, N.Z. Applying tar to wooden blocks	15983	11 Feb. ..	21	19 March.*
Coulson, M., and another, Auckland, N.Z. Mastic jointing-material	16039	26 Feb. ..	21	19 March.*
Coventry, J., Dunedin, N.Z. Ferrule for umbrella ..	15989	14 Feb. ..	18	5 March.*
Cozens, G., and another, Auckland, N.Z. Closet ..	15395	13 Sept., 1902 ..	9	5 Feb.
Craig, W., Auckland, N.Z. Ventilator ..	14875	10 May, 1902 ..	9	5 Feb.
Crane, A. W., and another, Sydney, N.S.W. Measuring-tap ..	16050	2 March ..	21	19 March.
Crawford, B., Auckland, N.Z. Rendering gas or oil engines noiseless	15882	15 Jan. ..	18	5 March.*
Crawford, B., Auckland, N.Z. Toe-piece for water-meter	16032	28 Feb. ..	21	19 March.*
Crowther, F. W., Bluff, N.Z. Spirit-level ..	16061	6 March ..	21	19 March.*
Cutten, W., Dunedin, N.Z. Compound winch for dredge ..	15857	8 Jan. ..	6	23 Jan.
Daniels, J. B., Wellington, N.Z. Preventing accumulation of explosive matter in mine	16125	24 March ..	25	2 April.*
Danne, H. A., and others, Richmond, Vic. Weighing-machine ..	16000	19 Feb. ..	18	5 March.
Danne, R. V., and others, Richmond, Vic. Weighing-machines ..	16000	19 Feb. ..	18	5 March.
Darrell, G., Melbourne, Vic. Advertising ..	15049	27 June, 1902 ..	25	2 April.
Davidson, G., Hokitika, N.Z. Tripping-block ..	14558	24 Feb., 1902 ..	13	19 Feb.
Davidson, B., Dunedin, N.Z. Making screenings ..	16152	26 March ..	..	..
Davis, H. T., and another, Lewisham, Eng. Separation of oily impurities from water	15854	9 Jan. ..	6	23 Jan.
Davys, T. J., and another, Dunedin, N.Z. Dredge bucket-tumbler	16145	23 March ..	29	16 April.*
Deeble, J. G., Sydney, N.S.W. (See W. Lyons, No. 16014.)				
De Loitte. (See under L.)				
Dement, I. S., and others, East Orange, U.S.A. (See W. E. Hughes, No. 14809.)				
Denniston, S. E., Invercargill, N.Z. Apparatus for dipping sheep ..	15992	13 Feb. ..	18	5 March.*
Devonshire, T. E., Chislehurst, Eng. Conduit for underground-cable	16134	25 March ..	..	..
Dick, J., Pahiatua, N.Z. Apparatus for drafting sheep ..	16006	20 Feb. ..	18	5 March.
Dickson, S. G., Melbourne, Vic. Manufacturing horseshoes ..	16029	27 Feb. ..	21	19 March.*
Dignan, J., Auckland, N.Z. Castrating, &c., lambs ..	16120	19 March ..	25	2 April.*
Dimant, E., Melbourne, Vic. Sole for boots and shoes ..	15101	10 July, 1902 ..	6	23 Jan.
Donald, D., Masterton, N.Z. Punching, shearing, and stamping-machine	14559	25 Feb., 1902 ..	6	23 Jan.

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

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Donald, D., Masterton, N.Z. Wool-press .. .. .	15912	28 Jan. ..	13	19 Feb.
Donaldson, J., and others, Melbourne, Vic. Weighing-machine ..	16000	19 Feb. ..	18	5 March.
Dumaresq, W. N., London, Eng. Variable-speed gearing .. ..	16088	13 March ..	25	2 April.
Duncan, J., Greymouth, N.Z. Bottom tumbler of dredger .. ..	15841	8 Jan. ..	6	23 Jan.*
Dunne, R., Dunedin, N.Z. Device for cutting mitres .. .. .	15881	15 Jan. ..	9	5 Feb.*
Dunstan, W. J., Dunedin, N.Z. Signalling-apparatus for cable-tramway	16176	31 March ..	29	16 April.*
Dutch, W. A. J., and another, Wellington, N.Z. Ball-valve for water-cistern	16102	18 March ..	25	2 April.
Early, T. F. W., and others, Petersham, N.S.W. Garbage-destroyer	16107	19 March ..	25	2 April.
Eaton, E., London, Eng. Building-brick .. .. .	16074	11 March ..	..	..
Eaton, E., London, Eng. Building-brick .. .. .	16075	11 March ..	..	..
Eaton, H. H., Winchester, U.S.A. (See United Shoe Machinery Company, No. 16108.)				
Edelmann, A., Dunedin, N.Z. Artificial fuel .. .. .	15951	4 Feb. ..	13	19 Feb.
Edwards, T., Colorado Springs, U.S.A. (See G. G. Turri, Nos. 15941-2.)				
Elder, A. W., Auckland, N.Z. Road-scoop, &c. .. .. .	16151	24 March ..	29	16 April.
Eldred, B., Boston, U.S.A. Treating lime .. .. .	16137	26 March ..	29	16 April.*
Electrical Ore-finding Company. (See W. E. Hughes, No. 16076.)				
Ellis, A. J., London, Eng. Tape embossing and feeding machine. (H. Casler and H. N. Marvin)	15994	18 Feb. ..	18	5 March.
Ellis, P., and another, Wellington, N.Z. Tap .. .. .	16037	2 March ..	21	19 March.*
Elmore, F. E., London, Eng. Generating electric current .. ..	16077	11 March ..	25	2 April.
England, R. W., jun., Christchurch. Manufacture of stone blocks	15991	18 Feb. ..	18	5 March.*
England, R. W., jun., Christchurch. Artificial stone blocks ..	16008	18 Feb. ..	18	5 March.*
Escher, H. G., Wellington, N.Z. Fire-escape .. .. .	16033	24 Feb. ..	21	19 March.
Eskesen, P., Waihi, N.Z. Boot .. .. .	16069	9 March ..	21	19 March.
Evans, J. P., Opotiki, N.Z. O.G. spouting .. .. .	14942	24 May, 1902 ..	18	5 March.
Fahy, J. V., Roslyn Bush, N.Z. Sheaf-carrier of harvester .. ..	14637	15 March ..	6	23 Jan.
Fairhurst, J. H., Wellington, N.Z. Scaffolding-bracket .. .. .	16019	23 Feb. ..	18	5 March.
Farguhar, J. F. C., Vacluse, N.S.W. Oil-lamp .. .. .	14688	1 April, 1902 ..	6	23 Jan.
Feaver, F. W., Surrey, England. Manufacture of metal cans and boxes	15856	10 Jan. ..	9	5 Feb.
Ferguson, P., Auckland, N.Z. Stirring auriferous material .. ..	15965	11 Feb. ..	..	..
Fessenden, R. A., Mantao, U.S.A. Signalling by electro-magnetic waves	15846	7 Jan. ..	6	23 Jan.
Fessenden, R. A., Mantao, U.S.A. Receiver for electro-magnetic waves	15847	7 Jan. ..	6	23 Jan.
Filor, C. F., Trenton, U.S.A. (See The Perfection Blind and Lock-stitch Sewing-machine Company, No. 15842.)				
Findlay, J., Clutha, N.Z. Composition for destroying noxious weeds	16009	18 Feb. ..	18	5 March.*
Fisher, D. P., and others, Wellington, N.Z. Ventilating halls, &c.	14952	4 June, 1902 ..	21	19 March.
Flanagan, J. R., Christchurch, N.Z. Rocker for children .. ..	16118	21 March ..	25	2 April.*
Fletcher, F. J., London, Eng. Aerating or carbonating liquids ..	15996	18 Feb. ..	18	5 March.
Fletcher, F. J., London, Eng. Filling bottles and stoppering them	15997	18 Feb. ..	18	5 March.
Fletcher, J., London, Eng. Dispensing aerated liquids .. .. .	16011	21 Feb. ..	18	5 March.
Florant, J. D., Richmond, Vic. Skilight .. .. .	15970	12 Feb. ..	13	19 Feb.*
Folsetter, W., and others, Dallas, U.S.A. Electrostatic magnetic separators	15830	5 Jan. ..	6	23 Jan.*
Ford, J., and another, Cromwell, N.Z. Perambulator .. .. .	14870	9 May, 1902 ..	21	19 March.
Ford, L. P., London, Eng. Artificial stone .. .. .	16131	25 March ..	25	2 April.
Foster, J. H., East Greenwich, Eng. (See G. W. Basley, No. 15998)				
Foster, T., and another, Dunedin, N.Z. Account-book .. .. .	15911	24 Jan. ..	9	5 Feb.*
Fraser, G., and another, Auckland, N.Z. Heat-economizer and smoke-consumer	15957	7 Feb. ..	18	5 March.*
French, A. C. S., and another, Wellington, N.Z. Dressing and washing <i>Phormium tenax</i>	15977	13 Feb. ..	13	19 Feb.*
Friend, E. H., and another, Auckland, N.Z. Steam-turbine motor	16105	16 March ..	25	2 April.*
Friend, J., and another, Auckland, N.Z. Steam-turbine motor ..	16105	16 March ..	25	2 April.*
Galbraith, D. R. S., Auckland, N.Z. Distillatory apparatus .. ..	16103	14 March ..	25	2 April.*
Garnham, R., Wellington, N.Z. Preventing the refilling of bottles	15952	6 Feb. ..	13	19 Feb.*
Gattsche, J. H., Palmerston N., N.Z. Boiler, &c., for brewery ..	16126	25 March ..	25	2 April.*
Gay, J. H., and another, Newark, U.S.A. Leather-splitting machine	15963	10 Feb. ..	13	19 Feb.
Geary, W. G., Weraeroa, N.Z. Martingale .. .. .	14943	31 May, 1902 ..	25	2 April.
Gibbons, R. P., Thames, N.Z. Compounded steam-engine .. ..	15537	18 Oct., 1902 ..	18	5 March.
Gibbs, G., New York, U.S.A. (See W. E. Hughes, No. 15903.)				
Giesen, W. B., Wanganui, N.Z. Drying and airing clothes .. ..	15878	19 Jan. ..	9	5 Feb.*
Giles, A. W., Traralgon, Vic. Drop-latch fastening .. .. .	16021	25 Feb. ..	..	..
Gill, A. B., London, Eng. Lighting trains by electricity .. ..	15909	27 Jan. ..	9	5 Feb.
Gillette, K. C., Brookline, U.S.A. Razor .. .. .	15872	15 Jan. ..	9	5 Feb.*
Gillies, A., Terang, Vic. Pneumatic milking-apparatus .. .. .	16022	25 Feb. ..	18	5 March.*
Gillies, J. H., and another, Dulwich Hill, N.S.W. Treating copper-ores	15915	28 Jan. ..	9	5 Feb.
Gilpin, G., and another, Wellington, N.Z. Triple valve of brake ..	15868	14 Jan. ..	6	23 Jan.*
Glossop, J., Dunedin, N.Z. Hose, &c. .. .. .	16130	21 March ..	25	2 April.*
Godden, L. G. W., Nelson, N.Z. Button-hole making .. .. .	15888	17 Jan. ..	9	5 Feb.*
Gordon, H. E. M., Patea, N.Z. Support for window-sash .. ..	15928	31 Jan. ..	13	19 Feb.*
Grattan, J. H., Auckland, N.Z. Gear for controlling horses .. ..	16013	19 Feb. ..	18	5 March.
Green, F. H., Riverton, N.Z. Kettle-hook .. .. .	15904	26 Jan. ..	9	5 Feb.*
Greenshields, W., Auckland, N.Z. Brace or suspender .. .. .	16115	21 March ..	25	2 April.*
Groves, D. C., and another, Dunedin, N.Z. Raising sunken vessel	16096	16 March ..	25	2 April.*
Gunn, H. Auckland, N.Z. Spark-stopper for engine .. .. .	14859	6 May, 1902 ..	18	5 March.

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

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Haines, C. W., Auckland, N.Z. Spark-extinguisher .. ..	14857	8 May, 1902.	13	19 Feb.
Hall, R., and another, Christchurch, N.Z. Mould or die for plastic materials	15907	27 Jan.	9	5 Feb.
Ham, H., Palmerston N., N.Z. Cover for hay-stack .. ..	16018	23 Feb. ..	25	2 April.*
Hamilton, C. D., Christchurch, N.Z. Turning over leaves of music	16080	12 March ..	25	2 April.*
Hamilton, G. R., and another, Palmerston N., N.Z. Saw-setting instrument	16122	24 March ..	25	2 April.*
Hankinson, A., Sydney, N.S.W. Miners' safety-lamp .. ..	15914	28 Jan. ..	9	5 Feb.
Hardy, A. R., Dunedin, N.Z. Sconce for candlestick .. ..	15875	14 Jan. ..	9	5 Feb.*
Harkness, W. S., Timaru, N.Z. Device for holding cow's leg ..	15858	9 Jan. ..	6	23 Jan.
Harman, R. D., and another, Christchurch, N.Z. Composition for brick and stone work	14930	29 May, 1902..	9	5 Feb.
Harraway, H., Dunedin, N.Z. Grain drier and conditioner ..	16068	9 March ..	21	19 March.
Harris, A. W., Gisborne, N.Z. Destruction of codlin-moth ..	16898	14 March ..	..	..
Harris, J., Cleveland, U.S.A. Wire fence .. ..	15831	5 Jan. ..	6	23 Jan.
Harrop, J. C., and others, Melbourne, Vic. Elastic heels ..	15931	29 Jan. ..	13	19 Feb.*
Harrop, W. H., and others, Melbourne, Vic. Elastic heels ..	15931	29 Jan. ..	13	19 Feb.*
Hartnett, J., and another, Balwyn, Vic. Cow-milking apparatus ..	16109	19 March ..	25	2 April.*
Hartree, H., Patangata, N.Z. Sheep-shears .. ..	16054	4 March ..	21	19 March.*
Harvey, R., and another, Newtown, N.S.W. Self-tilting table ..	16132	25 March ..	25	2 April.*
Harvey, W. J. M., Rata, N.Z. Governor for engine .. ..	15835	7 Jan. ..	6	23 Jan.*
Hasell, A. S., New Plymouth, N.Z. Animal-cover .. ..	16038	2 March ..	21	19 March.*
Hayne, J. R., Dunedin, N.Z. Pneumatic hub for wheel of vehicles	16041	3 March ..	21	19 March.
Heighton, A. L., Christchurch, N.Z. Boot-heel .. ..	16136	24 March ..	29	16 April.*
Helleur, G., Pahiataua, N.Z. Tap .. ..	16042	3 March ..	21	19 March.
Henderson, H. H., Wellington, N.Z. Apparatus for cleaning walls, &c.	14955	5 June, 1902..	18	5 March.
Henius, Dr. M., Chicago, U.S.A. Mash, tun, and wort separator ..	16089	12 March ..	25	2 April.
Herbert, T., Auckland, N.Z. Rusticated weather-boarding ..	16005	17 Feb. ..	..	..
Hewitt, P. C., New York, U.S.A. (See J. P. Campbell, No. 15906.)				
Hewton, T., Waianakarua, N.Z. Nut and washer .. ..	15880	15 Jan. ..	9	5 Feb.
Hickman, T. M., Wolverhampton, Eng. Preparation for destruction of blackberry-bushes	16063	6 March ..	21	19 March.*
Hien, P., Chicago, U.S.A. Friction-spring .. ..	15973	12 Feb. ..	..	..
Hodge, A., and another, Oamaru, N.Z. Horse-cover .. ..	14966	2 June, 1902..	21	19 March.
Holden, E. A., Ashfield, N.S.W. Automatic lubricator .. ..	15873	12 Jan. ..	9	5 Feb.
Holford, G., Auckland, N.Z. Opening tin, &c., by wire ..	16121	23 March ..	29	16 April.*
Holmes, A., and others, Christchurch, N.Z. Angle-iron for bedstead	16119	21 March ..	37	14 May.
Holmes, C., and others, Christchurch, N.Z. Angle-iron for bedstead	16119	21 March ..	37	14 May.
Holmes, S., and others, Christchurch, N.Z. Angle-iron for bedstead	16119	21 March ..	37	14 May.
Holms, J., jun., Waimahaka, N.Z. Hook, split-link, &c. ..	15933	30 Jan. ..	13	19 Feb.*
Honey, A. A., Chicago, U.S.A. (See D. W. Balch, No. 15826.)				
Hood, N. D., Greymouth, N.Z. Non-refillable bottle .. ..	15879	17 Jan. ..	9	5 Feb.*
Hopkirk, W. J., and another, Wellington, N.Z. Triple-valve of brake	15868	14 Jan. ..	6	23 Jan.*
Horne, E. T., and another, Invercargill, N.Z. Artificial manure ..	16035	26 Feb. ..	25	2 April.
Horne, E. T., and another, Invercargill, N.Z. Alcohol for commercial use, &c.	16036	26 Feb. ..	25	2 April.
Hosking, A., Auckland, N.Z. Combined tellurian and selenotrope ..	15895	20 Jan. ..	13	19 Feb.
Hoskins, G. J., St. Cloud, N.S.W. Ring and joint for sheet-metal pipes	15974	12 Feb. ..	13	19 Feb.
Hudson, W. C. H., Dunedin, N.Z. Rabbit-trap .. ..	15971	12 Feb. ..	13	19 Feb.
Hughes, R. U., and another, New Plymouth, N.Z. Sash-lock ..	16083	13 March ..	25	2 April.
Hughes, W. E., Wellington, N.Z. Mechanical cashier. (The Mechanical Cashier Syndicate, Limited—I. S. Dement, F. J. Hull, and A. D. King)	14809	1 May, 1902..	9	5 Feb.*
Hughes, W. E., Wellington, N.Z. Signalling-system for electric railway. (G. Gibbs)	15908	27 Jan. ..	9	5 Feb.
Hughes, W. E., Wellington, N.Z. Detecting mineral deposit. (Electrical Ore-finding Company)	16076	11 March ..	..	..
Hull, F. J., and others, New York, U.S.A. (See W. E. Hughes, No. 14809.)				
Hunter, J. T., Wellington, N.Z. Spring and frictional-resistance device. (Westinghouse Brake Company, Limited)	16012	21 Feb. ..	43	28 May.
Husband, J. H., Carlton, Vic. Machine for stamping letters ..	15829	5 Jan. ..	6	23 Jan.*
Hutchinson, G., Wellington, N.Z. Milking-machine .. ..	15894	23 Jan. ..	9	5 Feb.*
Ibbotson, T. H., Gore, N.Z. Drawing off liquids .. ..	16112	20 March ..	25	2 April.*
Irvine, G. H., Brisbane, Queensland. Abstracting colouring-matter from bark	16048	4 March ..	21	19 March.
Jackson, A. B., and others, Tuparoa, N.Z. Dust, draught, and rain excluder for doors	15222	5 Aug., 1902..	6	23 Jan.
Jackson, G. C., and others, Tuparoa, N.Z. Dust, draught, and rain excluder for doors	15222	5 Aug., 1902..	6	23 Jan.
Jacobsen, T. B., and another, Auckland, N.Z. Securing buttons to garments	14856	8 May, 1902..	13	19 Feb.
Jarvis, W. P., Melbourne, Vic. Method of air-purification. (J. Storer)	15919	29 Jan. ..	9	5 Feb.*
Jefferies, S. G., Matangi, N.Z. Gate-hinge .. ..	15897	23 Jan. ..	9	5 Feb.*
Jenkins, F. W., and others, Roodeport, Transvaal. Sharpening rock-drilling machines	15852	9 Jan. ..	..	..
Johnson, C. A., South Buchan, Vic. Coupling for railway rolling-stock	15969	12 Feb. ..	13	19 Feb.*
Johnston, C. S., and another, Lyttelton, N.Z. Non-refillable bottle	15053	27 June, 1902..	25	2 April.
Jones. (See Basil-Jones.)				
Jones, G. L., and another, Dunedin, N.Z. Artificial manure ..	16035	26 Feb. ..	25	2 April.

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

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Jones, G. L., and another, Dunedin, N.Z. Alcohol for commercial use, &c.	16036	26 Feb. ..	25	2 April.
Jones, S., Wellington, N.Z. Motor .. .. .	15936	2 Feb. ..	13	19 Feb.*
Jones, W., and another, Oamaru, N.Z. Horse-cover .. .. .	14966	2 June, 1902..	21	19 March.
Kelly, J. D., and others, Wellington, N.Z. Ventilating halls, &c. ..	14952	4 June, 1902..	21	19 March.
Kerr, H., Drummond, N.Z. Seed-sower .. .. .	15910	24 Jan. ..	9	5 Feb.*
Kiernan, C. T., Invercargill, N.Z. Box for packing rabbits, fish, &c.	14778	17 April, 1902..	9	5 Feb.
King, A. D., and others, New York, U.S.A. (See W. E. Hughes, No. 14809.)				
King, F., San Francisco, U.S.A. (See E. Phillips, No. 16049.)				
King, J. B., Auckland, N.Z. Filter-bed .. .. .	15860	8 Jan. ..	6	23 Jan.*
Kitson, A., London, Eng. Vapour-burning apparatus .. .. .	15886	19 Jan. ..	33	30 April.
Kitson, A., London, Eng. Vapour-burning apparatus .. .. .	15887	19 Jan. ..	9	5 Feb.
Kitson, A., London, Eng. Vapour-burning apparatus .. .. .	16040	17 June, 1902†	21	19 March.
Ladbrook, H. A., Seaward Moss, N.Z. Driving-gear for bicycles ..	15955	6 Feb. ..	13	19 Feb.*
Laing, E. H. B., and another, London, Eng. Bandolier and waist-belt rifle-carrier	15999	16 Feb. ..	18	5 March.
Lange, A. J. H., and another, Christchurch, N.Z. Cramp for picture-frames	15893	20 Jan. ..	9	5 Feb.*
Latimer, J. W., Chicago, U.S.A. Mowing-machine .. .. .	16081	12 March ..	25	2 April.
Lawson, W. S., Malvern, Vic. Coriaceous material .. .. .	16002	17 Feb. ..	18	5 March.*
Leighton, H. E., Wellington, N.Z. Boiler-furnace .. .. .	16116	21 March ..	..	..
Leighton, H. E., Wellington, N.Z. Smoke-consumer and heat-economizer	16117	21 March ..	..	..
Leiter, L. Z., Washington, U.S.A. Cooking-oven. (R. Moss) ..	16138	26 March ..	25	2 April.
Leland, S. D., Winchester, U.S.A. (See United Shoe Machinery Company, No. 15827.)				
Lewis, F., and another, Newman, N.Z. Attachment to bicycle-pump	15986	17 Feb. ..	18	5 March.*
Lewis, F., and another, Newman, N.Z. Securing the ends of belting together	15987	17 Feb. ..	18	5 March.*
Linard, A., and others, Melbourne, Vic. Elastic heel .. .. .	15931	29 Jan. ..	13	19 Feb.*
Lindberg, P. W., Eskilstuna, Sweden. Centrifugal separator ..	16073	11 March ..	25	2 April.
Lockerbie, R. L., Invercargill, N.Z. Hanging sashes, &c. .. .. .	15922	27 Jan. ..	9	5 Feb.*
Loitte, E. de N. de, Port Moeraki, N.Z. Treating auriferous material	16144	24 March ..	29	16 April.*
Lorie, A. F. W., Dunedin, N.Z. Sash-fastener .. .. .	15929	30 Jan. ..	13	19 Feb.*
Lovegrove, H. W., Timaru, N.Z. Bucket carrier or wagon .. ..	14928	24 May, 1902..	21	19 March.
Lowry, J. G. F., and another, Polton, Scot. Manufacture of gelatine	15767	17 Dec., 1902..	21	19 March.
Ludbrook, E. R., and others, Tuparua, N.Z. Dust, draught, and rain excluder for doors	15222	5 Aug., 1902..	6	23 Jan.
Lumley, M., and another, London, Eng. Reducing-valve .. .. .	15845	7 Jan. ..	6	23 Jan.
Lungley, C. F., Bourke, Vic. Aluminium alloy .. .. .	15850	9 Jan. ..	9	5 Feb.*
Lungley, C. F., Bourke, Vic. Extraction of titanium from ironsand	15917	29 Jan. ..	9	5 Feb.*
Lungley, C. F., Bourke, Vic. Manufacture of pig-iron from ironsand	15918	29 Jan. ..	9	5 Feb.*
Lyell, A., Palmerston N., N.Z. Race-starting gate .. .. .	14962	6 June, 1902..	6	23 Jan.
Lyons, W., Auckland, N.Z. Ballot-box for starting horse-races. (J. G. Deeble)	16014	19 Feb. ..	18	5 March.*
Macdonald, D. W., Havelock North, N.Z. Drawing-compasses ..	16024	25 Feb. ..	18	5 March.*
Maddren, W. J., and others, Palmerston N., N.Z. Preserving eggs, &c.	16095	16 March ..	25	2 April.*
Madill, W. H., Tuakau, N.Z. Pump .. .. .	14509	10 Feb., 1902..	21	19 March.
Magnus, P., Collingwood, Vic. Leather-treating .. .. .	16139	26 March ..	29	16 April.*
Magnus, P., Collingwood, Vic. Pneumatic tire .. .. .	16140	26 March ..	25	2 April.
Mander, H. F., and another, Newman, N.Z. Attachment to bicycle-pump	15986	17 Feb. ..	18	5 March.*
Mander, H. F., and another, Newman, N.Z. Securing the ends of belting together	15987	17 Feb. ..	18	5 March.*
Marvin, H. N., and another, Ganastota, U.S.A. (See A. J. Ellis, No. 15994.)				
Matheson, D., Wellington, N.Z. Preventing horse bolting .. ..	16155	31 March ..	29	16 April.*
Matthews, F., Wellington, N.Z. Preventing horse running away with vehicle	15948	6 Feb. ..	13	19 Feb.*
May, H., and another, Meningie, S. Aust. Sheep-shears .. .. .	14932	29 May, 1902..	6	23 Jan.
May, J. M., Wellington, N.Z. Boot and shoe heel. (W. McKenzie)	15861	12 Jan. ..	6	23 Jan.*
Mayo, B. P., Salem, U.S.A. (See United Shoe Machinery Company, No. 14697.)				
McCallum, W., and another, Kyeburn, N.Z. Revolving screen .. ..	15874	14 Jan. ..	9	5 Feb.
McCormick, M., Temuka, N.Z. Seed-sowing apparatus .. .. .	14727	7 April, 1902..	6	23 Jan.
McDonald, C., Dunedin, N.Z. (See The Union Steamship Company of New Zealand, Limited, No. 15975.)				
McElroy, J. E., New York, U.S.A. Electric-lighting system .. ..	16082	12 March ..	25	2 April.
McGrath, J., Onslow, W.A. Attachment to sheep-shears .. .. .	16056	6 March ..	21	19 March.
McIntyre, C., jun., and another, Wellington, N.Z. Indicating approach of a train	14297	2 Dec., 1901..	9	5 Feb.
McKee, A., Wellington, N.Z. Pictorial letter-card .. .. .	15905	26 Jan. ..	9	5 Feb.*
McKenzie, W., Wellington, N.Z. (See J. M. May, No. 15861.)				
McKenzie, W., Wellington, N.Z. Mounting billiard-tables in ships	15979	14 Feb. ..	13	19 Feb.*
McKnight, R., Philadelphia, U.S.A. Electro-magnetic separator ..	16106	19 March ..	25	2 April.*
McLauchlan, E. M., Winton, N.Z. Steering ploughs .. .. .	15888	19 Jan. ..	9	5 Feb.*
McLauchlan, E. M., Springhills, N.Z. Cycling-machine .. .. .	15988	7 Feb. ..	18	5 March.*
McLauchlan, E. M., Springhills, N.Z. Driving-mechanism for cycling-machines	16025	25 Feb. ..	18	5 March.*
McLean, J., and another, Wellington, N.Z. Tap .. .. .	16037	2 March ..	21	19 March.*

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

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
McLean, R., Ranfurly, N.Z. Animal-trap .. ..	14595	7 March, 1902	6	23 Jan.
McLeod, A., Auckland, N.Z. Drill for boring holes in rocks ..	15869	10 Jan. ..	9	5 Feb.*
McLeod, A., Auckland, N.Z. Marking-stamp .. ..	16085	11 March ..	25	2 April.*
McQueen, J., and another, Dunedin, N.Z. Pedal action, &c., of cycle	16084	10 March ..	25	2 April.
McShane, F. J., and another, Omaha, U.S.A. Dry-ore concentrator. (R. E. and E. Waugh)	16010	21 Feb. ..	18	5 March.
McShane, J. H., and another, Omaha, U.S.A. Dry-ore concentrator. (R. E. and E. Waugh)	16010	21 Feb. ..	18	5 March.
Mechanical Cashier Syndicate (Limited), The, London, Eng. (See W. E. Hughes, No. 14809.)				
Meldrum, G., Dunedin, N.Z. Filter for tap .. ..	16064	6 March ..	21	19 March.*
Messenger, T. W., Quorn, S. Aust. Ear-trumpet .. ..	14721	8 April, 1902..	6	23 Jan.
Millar, C. R. M., and others, Roodeport, Transvaal. Sharpening rock-drilling machine	15852	9 Jan. ..	..	..
Moore, N., and another, Invercargill, N.Z. Box for packing rabbits, fish, &c.	14778	17 April, 1902..	9	5 Feb.
Moore, R. J., Ruahine, N.Z. Milk-aerator .. ..	16026	25 Feb. ..	18	5 March.*
Morgan, H. E. J., Midland Junction, W.A. Tobacco-pipe ..	16055	6 March ..	21	19 March.*
Morgan, M. T., and another, Sydney, N.S.W. Coating wooden blocks with tar	16043	3 March ..	21	19 March.
Morgan, R. A., and another, Lyttelton, N.Z. Non-refillable bottle	15053	27 June, 1902	25	2 April.
Morony, J. M., Mudgee, N.S.W. Preventing horse running away with vehicle	16135	25 March ..	29	16 April.*
Morris, T., Dunedin, N.Z. Peg for rabbit-traps, tents, &c. ..	15920	27 Jan. ..	9	5 Feb.*
Moss, R., Chicago, U.S.A. (See L. Z. Leiter, No. 16138.)				
Mount, L. Le B., and another, Auckland, N.Z. Heat-economizer and smoke-consumer	15957	7 Feb. ..	18	5 March.*
Mount, L. Le B., Auckland, N.Z. Overalls .. ..	16165	30 March ..	29	16 April.*
Munson, C. W., Toledo, U.S.A. Compressor for gaseous fluid ..	16099	18 March ..	25	2 April.
Murie, R. M., Invercargill, N.Z. Causing explosion in oil-engines	15966	11 Feb. ..	13	19 Feb.*
Murnane, D. J., St. Louis, U.S.A. (See E. Waters, jun., No. 16066)				
Murphy, D., Tuamarina, N.Z. Plummer-block .. ..	14891	19 May, 1902..	9	5 Feb.
Murphy, J., Fordell, N.Z. Horse-cover .. ..	15500	10 Oct., 1902 ..	13	19 Feb.
Murray, A. C., and another, Cromwell, N.Z. Perambulator ..	14870	9 May, 1902..	21	19 March.
Napier, T., Hororata, N.Z. Boot-cleaner and knife-polisher ..	15859	9 Jan. ..	6	23 Jan.*
Nathan, A. H., Auckland, N.Z. Machine for packing tea. (F. H. Combes and W. F. Tucker)	15403	16 Sept., 1902	13	19 Feb.
Neal, C. C., Cambridge, N.Z. Holding cow's tail .. ..	16113	20 March ..	25	2 April.
Nelson, H. F., Christchurch, N.Z. Supporting clothes-line ..	16079	10 March ..	25	2 April.*
Newberry, F. J., and another, Geelong, Vic. Fire-box for copper ..	15853	9 Jan. ..	6	23 Jan.
Newsom, C. M., and another, Auckland, N.Z. Applying tar to wooden blocks	15983	11 Feb. ..	21	19 March.*
Newsom, C. M., and another, Auckland, N.Z. Mastic jointing material	16039	26 Feb. ..	21	19 March.*
Nicolle, W. E. H., and others, Beerscote, N.S.W. Fastening nail at joint	15985	18 Feb. ..	25	2 April.
Nicolls, A. E., Auckland, N.Z. Waste-converter .. ..	16179	31 March ..	43	28 May.
Noonan, J. H., and another, Auckland, N.Z. Billiard-rest ..	16158	28 March ..	29	16 April.*
O'Connor, T. B., and another, Auckland, N.Z. Billiard-rest ..	16158	28 March ..	29	16 April.*
Oppermann, C. T. J., London, Eng. Secondary battery .. ..	15960	10 Feb. ..	13	19 Feb.
Ormiston, J., Dunedin, N.Z. Ship's telegraph .. ..	15832	6 Jan. ..	6	23 Jan.*
Outred, J., and another, Dunedin, N.Z. Pedal-action, &c., of cycle	16084	10 March ..	25	2 April.
Palmer, J. E., Otokia, N.Z. Branding-compound .. ..	15837	5 Jan. ..	6	23 Jan.*
Park, T. M., Darrington, U.S.A. Ore-loader, &c. .. ..	16142	26 March ..	..	..
Parker, B., Colimadal, Vic. Rabbit-destroyer .. ..	15985	13 Feb. ..	18	5 March.*
Parrott, E. J., Christchurch, N.Z. Slaking lime .. ..	14866	7 May, 1902..	25	2 April.
Parry, T. G. A., Christchurch, N.Z. Castor .. ..	15913	28 Jan. ..	9	5 Feb.*
Passow, H., Dr., Hamburg, Germany. Cement .. ..	15871	15 Jan. ..	9	5 Feb.
Paul, T. T., and another, Dunedin, N.Z. Account-books ..	15911	24 Jan. ..	9	5 Feb.*
Payne, F. W., Dunedin, N.Z. Protecting bucket-tumbler from wear	15939	2 Feb. ..	25	2 April.
Payne, W., and another, Orange, N.S.W. Treating copper-ores ..	15915	28 Jan. ..	9	5 Feb.
Pearson, W. H., Dunedin, N.Z. Forming sheet-metal into cubes ..	16114	18 March ..	29	16 April.
Penrose, H. A., Baltimore, U.S.A. Filling and sealing bottles. (E. D. Schmitt)	16071	10 March ..	21	19 March.
Perfection Blind and Lock-stitch Sewing-machine Company, The, Trenton, U.S.A. Blind-stitch sewing-machine. (C. F. Filor)	15842	6 Jan. ..	6	23 Jan.
Perrett, E., and another, Lewisham, Eng. Separation of oily impurities from water	15854	9 Jan. ..	6	23 Jan.
Phillips, E., Melbourne, Vic. Massage-machine. (F. King) ..	16049	4 March ..	21	19 March.
Pirrit, G., and another, Auckland, N.Z. Preventing horses from bolting	15947	4 Feb. ..	13	19 Feb.*
Plucknett, S. G., Sydney, N.S.W. Contrivance to reflect view of vehicle to tram-driver	16003	17 Feb. ..	18	5 March.*
Polter, R., Auckland, N.Z. Bottle-neck shape .. ..	16092	12 March ..	25	2 April.*
Pond, J. A., Auckland, N.Z. Sterilising bones, manures, &c. ..	15896	20 Jan. ..	9	5 Feb.*
Preston, H., and another, Invercargill, N.Z. Horse-collar ..	14568	28 Feb., 1902..	6	23 Jan.
Purser, A., and others, Roodeport, Transvaal. Sharpening rock-drilling machine	15852	9 Jan. ..	..	..
Quigley, W. D., and another, Newark, U.S.A. Leather-splitting machine	15963	10 Feb. ..	13	19 Feb.

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

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Rangi, E. Te, and another, Palmerston N., N.Z. Saw-setting instrument	16122	24 March ..	25	2 April.*
Raymond, K., Invercargill, N.Z. Tea-infuser .. ..	15855	7 Jan. ..	6	23 Jan.*
Rayner, H. E. R., Oamaru, N.Z. Road-barrier .. ..	15949	3 Feb. ..	13	19 Feb.*
Rayward, H. H., and another, Wellington, N.Z. Apparatus for the sterilisation of milk, &c. (S. M. Barre)	15865	14 Jan. ..	6	23 Jan.
Rayward, H. H., and another, Wellington, N.Z. Discharging sewage upon filter-bed. (G. E. Ridgway)	15968	12 Feb. ..	21	19 March.
Regan, J. D., Coromandel, N.Z. Match .. ..	16086	14 March ..	25	2 April.*
Reid, A., Christchurch, N.Z. Smelting ironsand .. ..	16097	16 March ..	25	2 April.*
Reid, J. Herbert, N.Z. Preventing shear-blades from crossing .. ..	15976	10 Feb. ..	13	19 Feb.*
Reid, R. S., Timaru, N.Z. Window .. ..	14867	1 May, 1902 ..	9	5 Feb.
Reynolds, W. E., Dunedin, N.Z. Plough .. ..	15348	7 Jan. ..	6	23 Jan.
Richardson, E., Hawthorn, Vic. Electrical amalgamating, &c., apparatus	15000	13 June, 1902..	25	2 April.
Ridd, O., and another, Eltham, N.Z. Probe for teats of cows, &c. . .	15964	10 Feb. ..	13	19 Feb.*
Ridgway, G. E., Ashley, Eng. (See E. S. Baldwin and H. H. Rayward, No. 15968.)				
Rigby, J. S., Liverpool, Eng. Manufacture of brick and stone .. ..	15972	12 Feb. ..	13	19 Feb.
Roberts, E., and another, Dunedin, N.Z. Revolving screen .. ..	15874	14 Jan. ..	9	5 Feb.
Roberts, E., Dunedin, N.Z. Lower tumbler-shaft for dredge .. ..	16057	3 March ..	25	2 April.
Robertson, D., Wellington, N.Z. Mail-marking machine .. ..	14686	1 April, 1902..	6	23 Jan.
Robson, D. M., and another, St. Kilda, Vic. Cow-milking apparatus	16109	19 March ..	25	2 April.*
Roche, S., Greymouth, N.Z. Medicine for curing lumbago, &c. ..	15903	20 Jan. ..	13	19 Feb.
Rooke, T., and others, Newtown, N.S.W. Garbage destructor .. ..	16107	19 March ..	25	2 April.
Roussel, J., and another, Wellington, N.Z. Oiling carriage-axles ..	14766	18 April, 1902..	13	19 Feb.
Russell, T., Christchurch, N.Z. Street-sweeping machine .. ..	14921	26 May, 1902..	18	5 March.
Rutland, J., and another, Canvastown, N.Z. Rowlock .. ..	16027	25 Feb. ..	18	5 March.
Ryan, J., Ross, N.Z. Ear-marking appliance .. ..	16110	18 March ..	25	2 April.*
Salinger, J., Auckland, N.Z. Operating air-brakes on trains .. ..	15982	11 Feb. ..	18	5 March.
Sanders, R. D., Blackheath, Eng. Manufacture of compound wire bars and the like	14813	1 May, 1902..	9	5 Feb.
Schmitt, E. D., Baltimore, U.S.A. (See H. A. Penrose, No. 16071.)				
Schnetzer, K., Krammel, Austria. Soap-moulding machine .. ..	15727	3 Dec., 1902 ..	18	5 March.
Scott, C. W. B., Pietermaritzburg, Natal. Wall-distemper .. ..	15899	23 Jan. ..	9	5 Feb.
Seager, E., Wellington, N.Z. Grip-wheel for hauling .. ..	15944	5 Feb. ..	13	19 Feb.*
Seager, E., Wellington, N.Z. Compressor for wire ropes .. ..	15945	5 Feb. ..	13	19 Feb.*
Secor, J. A., New York, U.S.A. Explosion-motor .. ..	14571	3 March, 1902	18	5 March.
Seymour, H. A., Washington, U.S.A. Generation of steam from hot slag	15851	9 Jan. ..	6	23 Jan.
Shaw, S., East Richmond, Vic. Fittings for gas-burners .. ..	14899	22 May, 1902 ..	18	5 March.
Shepherd, J., Dunedin, N.Z. Recovering gold from black-sand .. ..	16123	24 March ..	25	2 April.*
Shepherd, J., Invercargill, N.Z. Driving log-hauling wagon .. ..	16124	24 March ..	25	2 April.*
Shely, A. M., and another, Louisville, U.S.A. Cleaning fibrous material	15940	5 Feb. ..	13	19 Feb.
Shely, W. A., and another, Louisville, U.S.A. Cleaning fibrous material	15940	5 Feb. ..	13	19 Feb.
Shine, T., Sydney, N.S.W. Parlour-game .. ..	16143	26 March ..	29	16 April.
Shipway, C. J., and another, Meningie, S. Aust. Sheep-shears .. ..	14932	29 May, 1902..	6	23 Jan.
Shuker, S., Addington, N.Z. Ends of rails for railways.. ..	16031	27 Feb. ..	21	19 March.*
Sim, W., Invercargill, N.Z. Milking-machine .. ..	16157	28 March ..	29	16 April.*
Smart, A., the younger, and others, Auckland, N.Z. Fire-escape ..	15967	10 Feb. ..	13	19 Feb.*
Smith, H., Kew, Vic. (See Artistic Woodwork Proprietary, Limited, No. 15993.)				
Smith, J. D., Dunedin, N.Z. Hair curler and waver .. ..	15930	29 Jan. ..	13	19 Feb.*
Smith, W. F., Anderson's Bay, N.Z. Wire-strainer .. ..	15954	5 Feb. ..	13	19 Feb.*
Smith, W. H., and another, Havelock, N.Z. Rowlock .. ..	16027	25 Feb. ..	18	5 March.
Somer, J., Maldon, Vic. Adjusting tire-bladders to cycles .. ..	15961	10 Feb. ..	13	19 Feb.*
Southward, P. E., Wellington, N.Z. Candle-guard .. ..	16111	20 March ..	25	2 April.*
Spragg, E., Auckland, N.Z. Sewing-machine attachment .. ..	16104	14 March ..	25	2 April.*
Stafford, G., and another, Wellington, N.Z. Dressing and washing <i>Phormium tenax</i>	15977	13 Feb. ..	13	19 Feb.*
Stanton, A. R., and another, Dunedin, N.Z. Raising sunken vessel	16096	16 March ..	25	2 April.*
Stanton, C. W., Mobile, U.S.A. Condensing-apparatus .. ..	15990	13 Feb. ..	18	5 March.
Staples, W., Wellington, N.Z. Boot .. ..	16007	20 Feb. ..	18	5 March.*
Stebbing, W. H., and another, Auckland, N.Z. Roller for typewriter	16093	12 March ..	25	2 April.*
Steele, E. G., and others, Dallas, U.S.A. Electrostatic-magnetic separator	15880	5 Jan. ..	6	23 Jan.*
Steele, W. L., and others, Dallas, U.S.A. Electrostatic-magnetic separator	15880	5 Jan. ..	6	23 Jan.*
Stephens, T., Brunswick, Vic. Retaining necktie in position .. ..	16062	6 March ..	21	19 March.*
Stevenson, T., Dunedin, N.Z. Metal mould or die .. ..	15902	23 Jan. ..	13	19 Feb.
Stewart, J., Invercargill, N.Z. Spreading polish on floor .. ..	16090	12 March ..	25	2 April.*
Stiggins, E. A., Beverly, U.S.A. (See United Shoe Machinery Company, No. 14882.)				
St. Louis Plate Glass Company, The, St. Louis, U.S.A. (See E. Waters, jun., No. 16066.)				
Storer, J., Melbourne, Vic. (See W. P. Jarvie, No. 15919.)				
Stuart, J., London, Eng. Boat-chock and disconnecting-grip .. ..	16046	4 March ..	21	19 March.*
Sutton, H. M., and others, Dallas, U.S.A. Electrostatic-magnetic separator	15880	5 Jan. ..	6	23 Jan.*
Svenska Centrifug Aktie Bolaget, Stockholm, Sweden. Centrifugal churn. (C. S. Berghmark)	14358	19 Dec., 1901 ..	2	8 Jan.

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

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Swift, A. W., and another, Christchurch, N.Z. Mould or die for plastic materials	15907	27 Jan. ..	9	5 Feb.
Tandy, C., Wellington, N.Z. Lifting-trigger for telescope-ladder ..	14841	5 May, 1902 ..	13	19 Feb.
Tandy, C., Wellington, N.Z. Tire for vehicle-wheels ..	14842	5 May, 1902 ..	13	19 Feb.
Taplin, T., Dannevirke, N.Z. Raising liquids to a high level ..	14939	30 May, 1902 ..	9	5 Feb.
Taucher, I., Wellington, N.Z. Oiling vehicle-axes ..	15956	9 Feb. ..	13	19 Feb.*
Taylor, F. W., Wanganui, N.Z. Separation of iron from sand ..	16150	28 March ..	29	16 April.*
Thomas, W., Geraldine, N.Z. Changing photographic plates ..	16016	20 Feb. ..	18	5 March.*
Thompson, A., and another, Wellington, N.Z. Oiling carriage-axes	14766	18 April, 1902..	13	19 Feb.
Thomson, J., Invercargill, N.Z. Sluice-box ..	15849	5 Jan. ..	6	23 Jan.*
Thorntson, A. T., and another, South Norsewood, N.Z. Cramp ..	15884	16 Jan. ..	9	5 Feb.*
Thrush, J., and others, Dulwich Hill, N.S.W. Garbage-destroyer	16107	19 March ..	25	2 April.
Tong, J. W., New Plymouth, N.Z. Siphon ..	15877	19 Jan. ..	9	5 Feb.
Tonkin, J. E., and others, Sydney, N.S.W. Fastening rail at joint	15995	18 Feb. ..	25	2 April.
Toogood, W., Featherston, N.Z. Fibre-washing machine ..	14715	7 April, 1902..	21	19 March.
Towgood, E. T., and others, Wanganui, N.Z. Tobacco-pipe ..	14774	19 April, 1902..	6	23 Jan.
Towgood, Y. S., and others, Wanganui, N.Z. Tobacco-pipe ..	14774	19 April, 1902..	6	23 Jan.
Trench, R. Le P., Darlington, N.S.W. Hydrant-valve ..	16030	27 Feb. ..	21	19 March.
Trevethick, J., Auckland, N.Z. Manufacture of broom-heads ..	15937	2 Feb. ..	13	19 Feb.
Tripe, J. D., Wanganui, N.Z. Apparatus for securing doors, &c. ..	15888	6 Jan. ..	6	23 Jan.*
Tucker, W. F., and another, Auckland, N.Z. (See A. H. Nathan, No. 15403.)				
Tully, B., Victor, U.S.A. Barrel filter ..	15870	15 Jan. ..	9	5 Feb.
Turnbull, T. O., Kawhia, N.Z. Device for carrying children ..	14716	7 April, 1902..	6	23 Jan.
Turnbull, W., Wellington, N.Z. Pivoting-arrangement for fan-lights, &c.	14978	9 June, 1902..	21	19 March.
Turner, D. L., Wellington, N.Z. Antiseptic match or torch ..	16060	7 March ..	21	19 March.*
Turri, G. G., Melbourne, Vic. Rotatable rabble for furnace. (T. Edwards)	15941	5 Feb. ..	13	19 Feb.*
Turri, G. G., Melbourne, Vic. Ore-roasting furnace. (T. Edwards)	15942	5 Feb. ..	13	19 Feb.*
Twomey, J. M., Temuka, N.Z. Paper-folding apparatus ..	16059	6 March ..	21	19 March.*
Union Steamship Company of New Zealand (Limited), The. Raft. (C. McDonald)	15975	12 Feb. ..	21	19 March.
United Shoe Machinery Company, Paterson, U.S.A. Heel-nailing machine. (B. F. Mayo)	14697	3 April, 1902..	13	19 Feb.
United Shoe Machinery Company, Paterson, U.S.A. Lasting-machine. (E. A. Stiggins)	14882	16 May, 1902..	25	2 April.
United Shoe Machinery Company, Paterson, U.S.A. Machine for compressing heels. (S. D. Leland)	15827	5 Jan. ..	6	23 Jan.*
United Shoe Machinery Company, Paterson, U.S.A. Machine for compressing heels. (C. L. Allen)	15828	5 Jan. ..	6	23 Jan.*
United Shoe Machinery Company, Paterson, U.S.A. Shoe-sewing machine. (F. L. Alley)	15834	7 Jan. ..	6	23 Jan.
United Shoe Machinery Company, Paterson, U.S.A. Apparatus for waxing threads. (F. L. Alley)	15988	4 Feb. ..	13	19 Feb.
United Shoe Machinery Company, Paterson, U.S.A. Fastening lacing-hook in shoe. (H. H. Eaton)	16108	19 March ..	25	2 April.
Urquhart, D., Islington, N.Z. Machine for printing sheep-bags ..	15891	20 Jan. ..	9	5 Feb.*
Verity, C. H., Wellington, N.Z. Heating water ..	15777	30 Dec., 1902 ..	13	19 Feb.*
Vibert, J. P., and another, Auckland, N.Z. Closet ..	15395	13 Sep., 1902 ..	9	5 Feb.
Vickery, T. H., Prahara, Vic. Shell for cream-separator ..	15900	21 Jan. ..	9	5 Feb.*
Volkers, E., Berlin, Germany. (See E. Waters, jun., No. 16044.)				
Walker, A., and another, Geslong, Vic. Fire-box for copper ..	15853	9 Jan. ..	6	23 Jan.
Walker, F. A., Patea, N.Z. Candlestick ..	15833	6 Jan. ..	6	23 Jan.*
Walker, R., Dunedin, N.Z. Liquid cooler and aerator ..	15928	27 Jan. ..	9	5 Feb.*
Wall, A. P., Dunedin, N.Z. Shield for busks of stays, &c. ..	14703	4 April, 1902..	6	23 Jan.
Wall, O., and another, New Plymouth, N.Z. Sash-lock ..	16083	13 March ..	25	2 April.
Wallace, W. J., and another, Dunedin, N.Z. Tumbler for dredge-bucket	16145	23 March ..	29	16 April.*
Walters, W. B., Wellington, N.Z. Treating flax ..	15926	30 Jan. ..	9	5 Feb.*
Ward, A., Waikawa Valley, N.Z. Yoke for pigs ..	15901	21 Jan. ..	9	5 Feb.*
Warwood, J., Dunedin, N.Z. Tobacco-cutter ..	15950	3 Feb. ..	13	19 Feb.*
Waters, E., jun., Melbourne, Vic. Microtelephone. (E. Volkers)	16044	28 Feb. ..	21	19 March.
Waters, E., jun., Melbourne, Vic. Machinery for grinding and polishing glass. (St. Louis Plate Glass Company—D. J. Murnane)	16066	9 March ..	21	19 March.
Watkins, J. E., Tinwald, N.Z. Threshing-machine ..	16153	30 March ..	29	16 April.
Watson, G. H., Wellington, N.Z. Draught-excluder ..	15935	2 Feb. ..	13	19 Feb.*
Watson, G. H., Wellington, N.Z. Carrying hot cooking-utensils ..	15943	5 Feb. ..	13	19 Feb.*
Watson, J., and another, Sydney, N.S.W. Measuring-tap ..	16050	2 March ..	21	19 March.
Waugh, E., and another, Denver, U.S.A. (See F. J. and J. H. McShane, No. 16010.)				
Waugh, R. E., and another, Denver, U.S.A. (See F. J. and J. H. McShane, No. 16010.)				
Waygood, J. E., Waikumete, N.Z. Hinge for gates and doors ..	14858	8 May, 1902 ..	13	19 Feb.
Waymouth, J., Auckland, N.Z. Ship's raft ..	16028	23 Feb. ..	21	19 March.*
Weaver, A., Hastings, N.Z. Apparatus for washing wool ..	15519	14 Oct., 1902 ..	9	5 Feb.
Webb, J., Arrowtown, N.Z. Luring birds to take poison ..	16034	26 Feb. ..	21	19 March.*
Wellman, H. P., Melbourne, Vic. Elevating-gate ..	15962	10 Feb. ..	13	19 Feb.*
Westinghouse Brake Company (Limited). (See J. T. Hunter, No. 16012.)				



ALPHABETICAL LIST OF APPLICANTS FOR LETTERS PATENT—continued.

Name, Address, and Invention.	Application.		Gazette.	
	No.	Date.	No.	Date.
Westinghouse, G., Pittsburg, U.S.A. Steam-turbine ..	16017	23 Feb.	18	5 March.
Whisker, N. H., and others, Auckland, N.Z. Fire-escape ..	15967	10 Feb.	13	19 Feb.*
White, A. M., Bolivia, N.S.W. Ploughshare. (J. Ainsworth) ..	14827	25 April, 1902..	6	23 Jan.
White, H., and another, Christchurch, N.Z. Cramp for picture-frames ..	15893	20 Jan.	9	5 Feb.*
White, S., Dunedin, N.Z. Opening bottles of soda-water, &c. ..	15921	27 Jan.	9	5 Feb.*
Whitney, A. N., Auckland, N.Z. Vessel for despatch, pleasure, &c. ..	15958	7 Feb.	13	19 Feb.*
Wickens, W., Christchurch, N.Z. Navigation of river ..	16148	25 March	29	16 April.
Wilkins, T., Lawrence, N.Z. Knife-cleaner ..	16023	25 Feb.	18	5 March.*
Wilkinson, W., Roslyn, N.Z. Locking-device for fish-plate nut ..	16154	30 March	29	16 April.*
Williams, H., Lyttelton, N.Z. Life-saving raft ..	15934	2 Feb.	13	19 Feb.*
Williams, J. L., North Melbourne, Vic. Flushing latrine ..	16164	30 Dec., 1902 ..		
Williams, R., East Taieri, N.Z. Wire-strainer ..	16091	12 March	25	2 April.*
Willmot, T., and another, Sydney, N.S.W. Coating wooden blocks with tar ..	16043	3 March	21	19 March.
Wilson, H. E., Auckland, N.Z. Kettle or pan bottoms ..	16052	2 March	21	19 March.*
Wilson, J., and others, Auckland, N.Z. Fire-escape ..	15967	10 Feb.	13	19 Feb.*
Wilson, W. D., Auckland, N.Z. Swingle-tree iron ..	16146	25 March	29	16 April.*
Wix, N. V. G., and others, Wellington, N.Z. Ventilating halls, &c. ..	14952	4 June, 1902 ..	21	19 March.
Woltereck, H. C., London, Eng. Manufacture of ammonia ..	15892	21 Jan.	9	5 Feb.
Wren, J., and another, Kew, Vic. Automatic spring-catch for sliding sashes, louvres, &c. (J. T. and C. M. Young) ..	15839	8 Jan.	6	23 Jan.
Wright, R., Newcastle-on-Tyne, Eng. (See Sir W. G. Armstrong, Whitworth, and Co., Limited, No. 16133.)				
Young, C. E., and another, Eltham, N.Z. Probe for teats of cows, &c. ..	15964	10 Feb.	13	19 Feb.*
Young, C. M., North Bendigo, Vic. (See J. T. Young and J. Wren, No. 15839.)				
Young, J. T., and another, Williamstown, Vic. Automatic spring-catch for sliding sashes, louvres, &c. (J. T. and C. M. Young)	15839	8 Jan.	6	23 Jan.

Alphabetical List of Inventions for Quarter ending 31st March, 1903.

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.
Account-book .. .. .	T. Foster and T. T. Paul ..	15911	24 Jan.	9	5 Feb.*
Advertising .. .. .	G. Darrell .. .. .	15049	27 June, 1902	25	2 April.
Advertising, Using waste light of shop for	H. Ashworth .. .. .	16004	20 Feb.	18	5 March.*
Aerated liquid, Dispensing .. .. .	J. Fletcher .. .. .	16011	21 Feb.	18	5 March.
Aerating and carbonating liquid .. .. .	F. J. Fletcher .. .. .	15996	18 Feb.	18	5 March.
Aerator .. .. .	K. Walker .. .. .	15923	27 Jan.	9	5 Feb.*
Aerator, Milk- .. .. .	R. J. Moore .. .. .	16026	25 Feb.	18	5 March.*
Air and steam to furnace, Supplying .. .. .	G. Claydon .. .. .	15061	30 June, 1902	18	5 March.
Air-brake operating-device .. .. .	J. Salinger .. .. .	15982	11 Feb.	18	5 March.
Airing and drying clothes .. .. .	W. B. Giesen .. .. .	15878	19 Jan.	9	5 Feb.*
Air-pump .. .. .	H. F. Mander and F. Lewis ..	15986	17 Feb.	18	5 March.*
Air-purification in mine .. .. .	W. P. Jarvie .. .. .	15919	29 Jan.	9	5 Feb.*
Alcohol, Commercial .. .. .	E. T. Horne and G. L. Jones ..	16036	26 Feb.	25	2 April.
Alloy, Aluminium .. .. .	C. F. Lungley .. .. .	15850	9 Jan.	9	5 Feb.*
Aluminium alloy .. .. .	C. F. Lungley .. .. .	15850	9 Jan.	9	5 Feb.*
Amalgamating, &c., machine, Electrical ..	E. Richardson .. .. .	15000	13 June, 1902	25	2 April.
Ammonia by synthesis, Producing .. .. .	H. C. Woltereck .. .. .	15892	21 Jan.	9	5 Feb.
Angle-iron .. .. .	T. Stevenson .. .. .	15902	23 Jan.	19	13 Feb.
Angle-iron for bedstead .. .. .	S., C., and A. Holmes .. .. .	16119	21 March	37	14 May.
Animal-cover, Securing front of .. .. .	A. S. Hasell .. .. .	16038	2 March	21	19 March.*
Animal-trap .. .. .	R. McLean .. .. .	14595	7 March	6	23 Jan.
Animal-trap .. .. .	W. Borlase .. .. .	15735	6 Dec., 1902	25	2 April.
Animal-trap .. .. .	F. W. Barton .. .. .	15978	11 Feb.	13	19 Feb.*
Anti-rattling window-attachment .. .. .	H. Agar .. .. .	16045	4 March	21	19 March.*
Antiseptic match or torch .. .. .	D. L. Turner .. .. .	16060	7 March	21	19 March.*
Arrestor. (See Spark-arrestor.)					
Artificial fuel .. .. .	A. Edelmann .. .. .	15951	4 Feb.	13	19 Feb.
Artificial manure .. .. .	E. T. Horne and G. L. Jones ..	16035	26 Feb.	25	2 April.
Artificial stone .. .. .	J. S. Rigby .. .. .	15972	12 Feb.	13	19 Feb.
Artificial-stone blocks .. .. .	R. W. England, jun... ..	15991	13 Feb.	18	5 March.*
Artificial-stone blocks .. .. .	R. W. England, jun... ..	16008	18 Feb.	18	5 March.*
Artificial stone, Mould for .. .. .	L. P. Ford .. .. .	16131	25 March	25	2 April.
Auriferous material, Locating .. .. .	E. de N. de Loitte .. .. .	16144	24 March	29	16 April.*
Auriferous material, Stirring .. .. .	P. Ferguson .. .. .	15965	11 Feb.		
Automatic-discharge filter-bed .. .. .	J. B. King .. .. .	15860	8 Jan.	6	23 Jan.*
Automatic letter, &c., stamping-machine ..	J. H. Husband .. .. .	15829	5 Jan.	6	23 Jan.*
Automatic lubricator .. .. .	E. A. Holden .. .. .	15873	12 Jan.	9	5 Feb.
Auxiliary driving-mechanism for cycle ..	E. M. McLaughlan .. .. .	16025	25 Feb.	18	5 March.*
Axle. (See Carriage-axle, Vehicle-axle.)					

## ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name	Application.		Gazette.	
		No.	Date.	No.	Date.
Bag. (See Sheep bag.)					
Ball-valve for water-cistern .. ..	W. A. J. Dutch and C. H. Barton	16102	18 March ..	25	2 April.
Ballot-box to indicate positions of horse in race	W. Lyons .. ..	16014	19 Feb. ..	18	5 March.*
Bandolier and rifle-carrier .. ..	E. H. B. Laing and G. W. Clarke	15999	16 Feb. ..	18	5 March.
Bark, Abstracting colouring-matter from ..	G. H. Irvine .. ..	16048	4 March ..	21	19 March.
Barrel filter .. ..	B. Tully .. ..	15870	15 Jan. ..	9	5 Feb.
Barrier. (See Road-barrier.)					
Bars, Compound wire .. ..	R. D. Sanders .. ..	14813	1 May, 1902	9	5 Feb.
Battery. (See Medical battery, Secondary battery.)					
Bedstead, Angle-iron for .. ..	S., G., and A. Holmes .. ..	16119	21 March ..	37	14 May.
Beer-tap .. ..	J. McLean and P. Ellis .. ..	16037	2 March ..	21	19 March.*
Belting, Securing ends of machinery ..	H. F. Mander and F. Lewis .. ..	15987	17 Feb. ..	18	5 March.*
Bicycle, Adjusting duplicate rubber tire to	J. Somer .. ..	15961	10 Feb. ..	13	19 Feb.*
Bicycle driving-gear .. ..	H. A. Ladbrook .. ..	15955	6 Feb. ..	13	19 Feb.*
Bicycle, Preventing skidding of .. ..	S. Butler .. ..	16178	31 March ..	29	16 April.
Bicycle-pump .. ..	H. F. Mander and F. Lewis .. ..	15986	17 Feb. ..	18	5 March.*
Billiard-rest .. ..	J. H. Noonan and T. B. O'Connor	16158	28 March ..	29	16 April.*
Billiard-table in ship, Mounting .. ..	W. McKenzie .. ..	15979	14 Feb. ..	13	19 Feb.*
Birds, Poisoning .. ..	J. Webb .. ..	16034	26 Feb. ..	21	19 March.*
Bit, Bridle .. ..	J. Coop .. ..	16087	14 March ..	25	2 April.*
Blackberry-destroying preparation .. ..	T. M. Hickman .. ..	16063	6 March ..	21	19 March.*
Black sand, Recovering gold from .. ..	J. Shepherd .. ..	16123	24 March ..	25	2 April.*
Blasting holes, Laying dust made in ..	T. J. Britten .. ..	15840	8 Jan. ..	6	23 Jan.
Blind-stitching sewing-machine .. ..	The Perfection Blind and Lock Stitch Sewing-machine Com- pany	15842	6 Jan. ..	6	23 Jan.
Blocks, Artificial-stone .. ..	R. W. England, jun. .. ..	15991	13 Feb. ..	18	5 March.*
Block-tarring apparatus .. ..	T. Willmot and M. T. Morgan .. ..	16043	3 March ..	21	19 March.
Blood-manures, Sterilising .. ..	J. A. Pond .. ..	15896	20 Jan. ..	9	5 Feb.*
Boat-chock, Lowering and canting .. ..	J. Stuart .. ..	16046	4 March ..	21	19 March.*
Boat-rowlock .. ..	J. Rutland and W. H. Smith .. ..	16027	25 Feb. ..	18	5 March.
Boiler-furnace .. ..	H. E. Leighton .. ..	16116	21 March ..	..	..
Boiler used in brewery, &c. .. ..	J. H. Gattsche .. ..	16126	25 March ..	25	2 April.*
Boiling tar to paving, Applying .. ..	C. M. Newson and M. Coulson .. ..	15983	11 Feb. ..	21	19 March.*
Bolting, Preventing horse .. ..	T. Betts and G. Pirrit .. ..	15947	4 Feb. ..	13	19 Feb.*
Bolting, Preventing horse .. ..	F. Matthews .. ..	15948	6 Feb. ..	13	19 Feb.*
Bolting, Preventing horse .. ..	W. Campbell .. ..	16072	10 March ..	21	19 March.*
Bolting, Preventing horse .. ..	J. M. Morony .. ..	16135	25 March ..	29	16 April.*
Bolting, Preventing horse .. ..	D. Matheson .. ..	16155	31 March ..	29	16 April.*
Bones, &c., Sterilising .. ..	J. A. Pond .. ..	15896	20 Jan. ..	9	5 Feb.*
Book. (See Account-book.)					
Book-leaf holder .. ..	G. S. Budge .. ..	16065	9 March ..	21	19 March.
Boot .. ..	W. Staples .. ..	16007	20 Feb. ..	18	5 March.*
Boot .. ..	P. Eskesen .. ..	16069	9 March ..	21	19 March.
Boot-cleaner and knife-polisher .. ..	T. Napier .. ..	15859	9 Jan. ..	6	23 Jan.*
Boot-heel .. ..	J. M. May .. ..	15861	12 Jan. ..	6	23 Jan.*
Boot-heel .. ..	A. L. Heighton .. ..	16136	24 March ..	29	16 April.*
Boot-heel, Elastic .. ..	J. C. and W. H. Harrop, and A. Linard	15931	29 Jan. ..	13	19 Feb.*
Boot-sole .. ..	E. Dimant .. ..	15101	10 July, 1902	6	23 Jan.
Borer for rock-boring .. ..	A. McLeod .. ..	15869	10 Jan. ..	9	5 Feb.*
Boring holes, Laying dust made in ..	T. J. Britten .. ..	15840	8 Jan. ..	6	23 Jan.
Bottle. (See Non-refillable bottle.)					
Bottle, Filling and sealing .. ..	H. A. Penrose .. ..	16071	10 March ..	21	19 March.
Bottle-neck .. ..	R. Potter .. ..	16092	12 March ..	25	2 April.*
Bottle-opener .. ..	S. White .. ..	15921	27 Jan. ..	9	5 Feb.*
Bottle, Preventing refilling of .. ..	R. Garnham .. ..	15952	6 Feb. ..	13	19 Feb.*
Bottle with liquid, Filling and stoppering	F. J. Fletcher .. ..	15997	18 Feb. ..	18	5 March.
Box for packing rabbits, &c. .. ..	W. Moore and C. T. Kiernan .. ..	14778	17 April, 1902	9	5 Feb.
Box or can, Sheet-metal .. ..	F. W. Feaver .. ..	15856	10 Jan. ..	9	5 Feb.
Braces .. ..	W. Greenshields .. ..	16115	21 March ..	25	2 April.*
Bracket, Scaffolding .. ..	J. H. Fairhurst .. ..	16019	23 Feb. ..	18	5 March.
Brake. (See Westinghouse brake.)					
Brake, Air-, operating device .. ..	J. Salinger .. ..	15982	11 Feb. ..	18	5 March.
Brake-apparatus, Fluid-pressure .. ..	M. Corrington .. ..	15898	23 Jan. ..	9	5 Feb.
Branding-compound .. ..	J. E. Palmer .. ..	15837	5 Jan. ..	6	23 Jan.*
Branding-stamp .. ..	A. McLeod .. ..	16085	11 March ..	25	2 April.*
Brewery, &c., Boiler used in .. ..	J. H. Gattsche .. ..	16126	25 March ..	25	2 April.*
Brick .. ..	J. S. Rigby .. ..	15972	12 Feb. ..	13	19 Feb.
Brick .. ..	E. Eaton .. ..	16074	11 March ..	..	..
Brick .. ..	E. Eaton .. ..	16075	11 March ..	..	..
Brickwork, &c., Rendering, impervious to water	J. J. Collins and R. D. Harman .. ..	14930	29 May, 1902	9	5 Feb.
Bridle-bit .. ..	J. Coop .. ..	16087	14 March ..	25	2 April.*
Broom-head .. ..	J. Trevethick .. ..	15937	2 Feb. ..	13	19 Feb.
Broom-head, Securing handle to .. ..	D. M. Brooks .. ..	15980	14 Feb. ..	21	19 March.
Bucket carrier or wagon .. ..	H. W. Lovegrove .. ..	14928	24 May, 1902	21	19 March.
Bucket-tumbler from wear, Protecting ..	F. W. Payne .. ..	15939	2 Feb. ..	25	2 April.
Buffer for tipping-wagon .. ..	Sir W. G. Armstrong, Whitworth, and Co. (Limited)	16133	25 March ..	25	2 April.
Building, Portable .. ..	D. Brummer .. ..	15651	23 Nov., 1901†	18	5 March.
Building, Safely descending from .. ..	N. H. Whisker, A. Smart, jun., and J. Wilson	15967	10 Feb. ..	13	19 Feb.*

## ALPHABETICAL LIST OF INVENTIONS - continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Burner. (See Gas-burner.)					
Busk, Shield for stay-	A. F. Wall .. ..	14703	4 April, 1902	6	23 Jan.
Button-fastener .. ..	A. H. Brownley and T. B. Jacobsen	14856	8 May, 1902	13	19 Feb.
Button-holes, Making .. ..	L. G. W. Godden .. ..	15883	17 Jan. .. ..	9	5 Feb.*
Cable, Conduit for underground	T. E. Devonshire .. ..	16134	25 March .. ..	..	..
Cable-tramway, Signalling-apparatus for .. ..	W. J. Dunstan .. ..	16176	31 March .. ..	29	16 April.*
Can .. ..	E. Basil-Jones .. ..	15862	12 Jan. .. ..	6	23 Jan.*
Can, Opening, with wire .. ..	G. Holford .. ..	16121	23 March .. ..	29	16 April.*
Can or box, Sheet-metal .. ..	F. W. Feaver .. ..	15856	10 Jan. .. ..	9	5 Feb.
Candle-extinguisher .. ..	J. G. Bartlett .. ..	16128	21 March .. ..	25	2 April.*
Candle-guard .. ..	P. E. Southward .. ..	16111	20 March .. ..	25	2 April.*
Candlestick .. ..	P. A. Walker .. ..	15833	6 Jan. .. ..	6	23 Jan.*
Candlestick, Sconce for .. ..	A. R. Hardy .. ..	15875	14 Jan. .. ..	9	5 Feb.*
Canting boat-chock, &c. .. ..	J. Stuart .. ..	16046	4 March .. ..	21	19 March.*
Carbonaceous liquid as fuel, Using .. ..	F. Cotton .. ..	15318	28 Aug., 1902	18	5 March.
Carbonating and aerating liquid .. ..	F. J. Fletcher .. ..	15996	18 Feb. .. ..	18	5 March.
Card. (See Letter-card.)					
Carriage-axle oiler .. ..	A. Thompson and J. Roussel .. ..	14766	18 April, 1902	13	19 Feb.
Carrying children, Device for .. ..	T. O. Turnbull .. ..	14716	7 April, 1902	6	23 Jan.
Cashier, register, &c., Mechanical .. ..	W. E. Hughes .. ..	14809	1 May, 1902	9	5 Feb.*
Castor .. ..	T. G. A. Parry .. ..	15913	28 Jan. .. ..	9	5 Feb.*
Castrating, &c., lambs .. ..	J. Dignan .. ..	16120	19 March .. ..	25	2 April.*
Catch for window .. ..	J. T. Young and J. Wren .. ..	15839	8 Jan. .. ..	6	23 Jan.
Cement .. ..	Dr. H. Passow .. ..	15871	15 Jan. .. ..	9	5 Feb.
Centrifugal separator .. ..	P. W. Lindberg .. ..	16073	11 March .. ..	25	2 April.
Cereals, Sowing .. ..	W. E. Chamberlain .. ..	15806	23 Dec., 1902	21	19 March.
Chair, &c., Revolving .. ..	H. J. Bettany .. ..	15866	14 Jan. .. ..	6	23 Jan.*
Changing and developing photographic films .. ..	W. Thomas .. ..	16016	20 Feb. .. ..	18	5 March.*
Children, Device for carrying .. ..	T. O. Turnbull .. ..	14716	7 April, 1902	6	23 Jan.
Children, Rocker for .. ..	J. R. Flanagan .. ..	16118	21 March .. ..	25	2 April.*
Chock. (See Boat-chock.)					
Churn .. ..	Svenska Centrifug Aktie Bolaget	14358	19 Dec., 1901	2	8 Jan.
Cistern. (See Closet-cistern.)					
Cleaner. (See Fibrous-material cleaner, Knife-cleaner.)					
Clip for holding smoking pipe .. ..	G. Aldous .. ..	15984	16 Feb. .. ..	18	5 March.
Closet .. ..	J. P. Vibert and G. Cozens .. ..	15395	13 Sept., 1902	9	5 Feb.
Closet-cistern valve .. ..	J. Cook .. ..	14880	15 May, 1902	13	19 Feb.
Clothes, Airing and drying .. ..	W. B. Giesen .. ..	15878	19 Jan. .. ..	9	5 Feb.*
Clothes-line strainer .. ..	W. Anderson .. ..	15889	20 Jan. .. ..	9	5 Feb.*
Clothes-line support .. ..	H. F. Nelson .. ..	16079	10 March .. ..	25	2 April.*
Coating wooden blocks with tar .. ..	T. Willmot and M. T. Morgan .. ..	16043	3 March .. ..	21	19 March.
Codlin-moth, Destruction of .. ..	A. W. Harris .. ..	16098	14 March .. ..	..	..
Coking-oven .. ..	L. Z. Leiter .. ..	16138	26 March .. ..	25	2 April.
Collar. (See Horse-collar.)					
Collar, Retaining necktie on .. ..	T. Stephens .. ..	16062	6 March .. ..	21	19 March.*
Combustion-chamber for washing copper .. ..	F. J. Newberry and A. Walker .. ..	15853	9 Jan. .. ..	6	23 Jan.
Compasses, Drawing- .. ..	D. W. Macdonald .. ..	16024	25 Feb. .. ..	18	5 March.*
Compensator, Vehicle weight .. ..	M. Browne .. ..	15889	20 Jan. .. ..	9	5 Feb.*
Compound dredge-winch .. ..	W. Cutten .. ..	15857	3 Jan. .. ..	6	23 Jan.
Compounded steam-engine .. ..	R. P. Gibbons .. ..	15537	18 Oct., 1902	18	5 March.
Compressed-air, Raising liquid by .. ..	T. Taplin .. ..	14939	30 May, 1902	9	5 Feb.
Compressing heel .. ..	United Shoe Machinery Company	15827	5 Jan. .. ..	6	23 Jan.*
Compressing heel .. ..	United Shoe Machinery Company	15828	5 Jan. .. ..	6	23 Jan.*
Compressor for gaseous fluid .. ..	C. W. Munson .. ..	16099	18 March .. ..	25	2 April.
Compressor for wire rope .. ..	E. Seager .. ..	15945	5 Feb. .. ..	13	19 Feb.*
Concentrating, &c., machine, Electrical .. ..	E. Richardson .. ..	15000	13 June, 1902	25	2 April.
Concentrator .. ..	J. S. Brownell .. ..	15843	7 Jan. .. ..	6	23 Jan.
Concentrator, Dry-ore .. ..	F. J. and J. H. McShane .. ..	16010	21 Feb. .. ..	18	5 March.
Condensing-apparatus .. ..	C. W. Stanton .. ..	15990	13 Feb. .. ..	18	5 March.
Connecting ends of rails .. ..	S. Shuker .. ..	16031	27 Feb. .. ..	21	19 March.*
Controlling horse, Attachable gear for .. ..	J. H. Grattan .. ..	16013	19 Feb. .. ..	18	5 March.
Converter, Waste- .. ..	A. E. Niccolls .. ..	16179	31 March .. ..	43	28 May.
Cooking-utensil, Carrying hot .. ..	G. H. Watson .. ..	15943	5 Feb. .. ..	13	19 Feb.*
Cooler .. ..	R. Walker .. ..	15923	27 Jan. .. ..	9	5 Feb.*
Copper, Combustion chamber, &c., for .. ..	F. J. Newberry and A. Walker .. ..	15853	9 Jan. .. ..	6	23 Jan.
Copper-ore, Treating .. ..	W. Payne and J. H. Gillies .. ..	15915	28 Jan. .. ..	9	5 Feb.
Coriaceous material .. ..	W. S. Lawson .. ..	16002	17 Feb. .. ..	18	5 March.*
Couch-grass land, Cultivator for .. ..	A. Busch .. ..	16053	3 March .. ..	21	19 March.*
Coupling, Railway rolling-stock .. ..	G. A. Johnson .. ..	15969	12 Feb. .. ..	13	19 Feb.*
Cover. (See Animal-cover, Horse-cover.)					
Cover for hay, &c., stack .. ..	H. Ham .. ..	16018	23 Feb. .. ..	25	2 April.*
Cow-leg holder .. ..	W. A. Collins .. ..	15425	19 Sept., 1902	9	5 Feb.
Cow-leg holder .. ..	W. S. Harkness .. ..	15858	9 Jan. .. ..	6	23 Jan.
Cow-leg, Securing .. ..	F. H. Aussen .. ..	15867	14 Jan. .. ..	6	23 Jan.
Cow-tail holder .. ..	C. C. Neal .. ..	16113	20 March .. ..	25	2 April.
Cow-milking apparatus .. ..	J. Hartnett and D. M. Robison .. ..	16109	19 March .. ..	25	2 April.*
Cow, Probe for teat of .. ..	C. Ridd and C. E. Young .. ..	15964	10 Feb. .. ..	13	19 Feb.*
Cramp, Flooring- .. ..	J. Collinge, jun., and A. T. Thorstenson	15884	16 Jan. .. ..	9	5 Feb.*
Cramp, Picture-frame .. ..	A. J. H. Lange and H. White .. ..	15893	20 Jan. .. ..	9	5 Feb.*
Crane .. ..	H. Brown .. ..	16101	18 March .. ..	25	2 April.*
Cream-separator, Shell for .. ..	T. H. Vickery .. ..	15900	21 Jan. .. ..	9	5 Feb.*

## ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Cube, Forming sheet-metal into	W. H. Pearson	16114	18 March	29	16 April.
Cucumber-slicer	M. C. Cossar	16156	31 March	29	16 April.*
Cultivator	A. Busch	16053	3 March	21	19 March.*
Curler and waver, Hair	J. D. Smith	15930	29 Jan.	13	19 Feb.*
Current-operated receiver	R. A. Fessenden	15847	7 Jan.	6	23 Jan.
Cushioned furniture	W. Aggers	15885	19 Jan.	9	5 Feb.*
Cutter. (See Mitre-cutter, Tobacco-cutter.)					
Cycle, Auxiliary driving-mechanism for	E. M. McLauchlan	16025	25 Feb.	18	5 March.*
Cycle, Pedal-action and speed of	J. Outred and J. McQueen	16884	10 March	25	2 April.
Cycling-machine	E. M. McLauchlan	15988	7 Feb.	18	5 March.*
Damper-regulator	F. Bonnington	15025	23 June, 1902	25	2 April.
Decorating woodwork	Artistic Woodwork Proprietary (Limited)	15993	18 Feb.	18	5 March.*
Descending from building	N. H. Whisker, A. Smart, jun., and J. Wilson	15967	10 Feb.	13	19 Feb.*
Destroying blackberry-bush, &c.	T. M. Hickman	16063	6 March	21	19 March.*
Destroying codlin-moth, &c.	A. W. Harris	16098	14 March	..	..
Destroying noxious plants, &c.	J. Findlay	16009	18 Feb.	18	5 March.*
Destroying rabbits, &c.	B. Parker	15985	13 Feb.	18	5 March.*
Destructor, Garbage-	T. Rooke, J. Thrush, and T. F. W. Early	16107	19 March	25	2 April.
Detecting and localising mineral deposit	W. E. Hughes	16076	11 March	..	..
Developing and changing photographic plates	W. Thomas	16016	20 Feb.	18	5 March.*
Die for plastic material	A. W. Swift and R. Hall	15907	27 Jan.	9	5 Feb.
Dipping sheep, Apparatus for	S. E. Denniston	15992	13 Feb.	18	5 March.*
Disc-plough	F. A. Brand	15925	30 Jan.	..	..
Dispensing aerated liquids	J. Fletcher	16011	21 Feb.	18	5 March.
Distemper, Wall-	C. W. B. Scott	15899	23 Jan.	9	5 Feb.
Distillatory apparatus	D. R. S. Galbraith	16103	14 March	25	2 April.*
Distributing sewage on to filter-bed	E. S. Baldwin and H. H. Rayward	15968	12 Feb.	21	19 March.
Docking, &c., lambs	J. Dignan	16120	19 March	25	2 April.*
Doors, Hanging	R. L. Lockerbie	15922	27 Jan.	9	5 Feb.*
Doors, windows, &c., Securing	J. D. Tripe	15838	6 Jan.	6	23 Jan.*
Drafting sheep, Apparatus for	J. Dick	16006	20 Feb.	18	5 March.
Draught-excluder	G. H. Watson	15935	2 Feb.	13	19 Feb.*
Draught-excluder for door	E. R. Ludbrook, A. B. and G. C. Jackson	15222	5 Aug., 1902	6	23 Jan.
Drawing-compasses	D. W. Macdonald	16024	25 Feb.	18	5 March.*
Drawing off aerated liquid	J. Fletcher	16011	21 Feb.	18	5 March.
Drawing off beer, &c., Tap for	J. McLean and P. Ellis	16037	2 March	21	19 March.*
Drawing off liquid from container	T. H. Ibbotson	16112	20 March	25	2 April.*
Drawing off liquid from tin	G. Helleur	16042	3 March	21	19 March.
Dredge, Bottom tumbler of	J. Duncan	15841	8 Jan.	6	23 Jan.*
Dredge-bucket tumbler	F. J. Davys and W. J. Wallace	16145	23 March	29	16 April.*
Dredge lower-tumbler shaft	E. Roberts	16057	3 March	25	2 April.
Dredge-winch, Compound	W. Cutten	15857	8 Jan.	6	23 Jan.
Dressing and washing <i>Phormium tenax</i>	G. Stafford and A. C. S. French	15977	13 Feb.	13	19 Feb.*
Dressing fur on skins	C. Anderson	16141	26 March	25	2 April.
Drier and conditioner, Grain	H. Harraway	16068	9 March	21	19 March.*
Drill for rock-boring	A. McLeod	15869	10 Jan.	9	5 Feb.*
Drilling machine, Sharpening rock-	A. Pursor, F. W. Jenkins, and C. R. M. Millar	15852	9 Jan.	..	..
Driver, Reflecting view of car to	S. G. Plucknett	16003	17 Feb.	18	5 March.*
Driving-gear for bicycle	H. A. Ludbrook	15955	6 Feb.	13	19 Feb.*
Driving-mechanism for cycle	E. M. McLauchlan	16025	25 Feb.	18	5 March.*
Drying and airing clothes	W. B. Giesen	15878	19 Jan.	9	5 Feb.*
Duplicate tires, Adjusting, to bicycle	J. Somer	15961	10 Feb.	13	19 Feb.*
Dust-excluder for door	E. R. Ludbrook, A. B. and G. C. Jackson	15222	5 Aug., 1902	6	23 Jan.
Dusting floors and walls	H. H. Henderson	14955	5 June, 1902	18	5 March.
Dust of blasting, Laying	T. J. Britten	15840	8 Jan.	6	23 Jan.
Ear-marking appliance	J. Ryan	16110	18 March	25	2 April.*
Ear-marking, &c., lambs	J. Dignan	16120	19 March	25	2 April.*
Ear-trumpet	T. W. Messenger	14721	8 April, 1902	6	23 Jan.
Economizer. (See Fuel-economizer, Heat-economizer.)					
Eggs, Preserving	R. W. Ashcroft, W. J. Maddren, and S. Ashcroft	16095	16 March	25	2 April.*
Elastic heel for boot, &c.	J. C. Harrop, W. H. Harrop, and A. Linard	15931	29 Jan.	13	19 Feb.*
Electrical amalgamating, &c., apparatus	E. Richardson	15000	13 June, 1902	25	2 April.
Electrically lighting train	A. B. Gill	15909	27 Jan.	9	5 Feb.
Electrically separating iron from sand	F. W. Taylor	16150	28 March	29	16 April.*
Electric current for electrolysis, Generating	F. E. Elmore	16077	11 March	25	2 April.
Electric current, Obtaining unidirectional	J. P. Campbell	15906	27 Jan.	9	5 Feb.
Electric-lighting system	J. F. McElroy	16082	12 March	25	2 April.
Electric railway, Signalling-system for	W. E. Hughes	15908	27 Jan.	9	5 Feb.
Electro-deposition of metals	R. D. Sanders	14813	1 May, 1902	9	5 Feb.
Electrolysis, Generating electric current for	F. E. Elmore	16077	11 March	25	2 April.
Electro-magnetic railway-traction	D. W. Balch	15826	5 Jan.	6	23 Jan.
Electro-magnetic separator	R. McKnight	16106	19 March	25	2 April.*

ALPHABETICAL LIST OF INVENTIONS *continued.*

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Electro-magnetic waves, Current-operated receiver for	R. A. Fessenden .. ..	15847	7 Jan. ..	6	23 Jan.
Electro-magnetic waves, Signalling by ..	R. A. Fessenden .. ..	15846	7 Jan. ..	6	23 Jan.
Electrostatic-magnetic separator ..	E. G. Steele and W. Folsetter ..	15830	5 Jan. ..	6	23 Jan.*
Elevating gate for farmers, &c. ..	H. P. Wellman .. ..	15962	10 Feb. ..	13	19 Feb.*
Embossing machine, Tape- ..	H. J. Ellis .. ..	15994	18 Feb. ..	18	5 March.
Engine-governor .. ..	W. J. M. Harvey .. ..	15835	7 Jan. ..	6	23 Jan.*
Engine, Rotary fluid- ..	Cooley Development Company ..	16100	18 March ..	25	2 April.
Escape. (See Fire-escape.) ..					
Evaporation-annaratus ..	D. R. S. Galbraith .. ..	16108	14 March ..	25	2 April.*
Explosion in gas-engine, &c., Causing ..	B. M. Murie .. ..	15966	11 Feb. ..	13	19 Feb.*
Explosion-motor .. ..	J. A. Secor .. ..	14571	3 March ..	18	5 March.
Explosive-matter in mine, Preventing accumulation of	J. B. Daniels .. ..	16125	24 March ..	25	2 April.*
Extinguisher. (See Candle-extinguisher, Spark-extinguisher.)					
Extinguishing fire, Generating gas for	The Clayton Fire extinguishing and Ventilating Company (Ltd.)	15844	7 Jan. ..	6	23 Jan.
Extracting gold from river material	E. de N. de Loitte .. ..	16144	24 March ..	29	16 April.*
Fanlight, Pivoting-arrangement for	W. Turnbull .. ..	14978	9 June, 1902	21	19 March.
Fastener. (See Button-fastener, Horse-cover fastener, Mat-fastener, Sash-fastener.)					
Fastening lacing-hook in shoe.	United Shoe Machinery Company	16108	19 March ..	25	2 April.
Fastening of rails, Securing	J. E. Tonkin, W. Ames, and W. E. H. Nicolle	15995	18 Feb. ..	25	2 April.
Feed-water heater, Engine	W. I. Aston .. ..	16020	24 Feb. ..	18	5 March.*
Feeding machine, Tape	A. J. Ellis .. ..	15994	18 Feb. ..	18	5 March.
Fence, Wire	J. Harris .. ..	15881	5 Jan. ..	6	23 Jan.
Ferrule for umbrella, Sliding	J. Coventry .. ..	15989	14 Feb. ..	18	5 March.*
Fibre-washing, &c., machine	W. Toogood .. ..	14715	7 April, 1902	21	19 March.
Fibrous-material cleaner and breaker	W. A. and A. M. Shely .. ..	15940	5 Feb. ..	13	19 Feb.
Fibrous material, Dressing and washing	G. Stafford and A. C. S. French ..	15977	13 Feb. ..	13	19 Feb.*
Filling and sealing bottle	H. A. Ponrose .. ..	16071	10 March ..	21	19 March.
Filling and stoppering bottle ::	F. J. Fletcher .. ..	15997	18 Feb. ..	18	5 March.
Filter, Barrel	B. Tully .. ..	15870	15 Jan. ..	9	5 Feb.
Filter-bed with automatic discharge	J. B. King .. ..	15860	8 Jan. ..	6	23 Jan.*
Filter-bed, Distributing sewage into	E. S. Baldwin and H. H. Rayward	15968	12 Feb. ..	21	19 March.
Filter for trip	G. Meldrum .. ..	16064	6 March ..	21	19 March.*
Fire-box for washing copper ..	P. J. Newberry and A. Walker	15853	9 Jan. ..	6	23 Jan.
Fire-escape	D. M. Brooks .. ..	15864	13 Jan. ..	9	5 Feb.*
Fire-escape	N. H. Whisker, A. Smart, jun., and J. Wilson	15967	10 Feb. ..	13	19 Feb.*
Fire-escape	H. G. Escher .. ..	16093	24 Feb. ..	21	19 March.
Fire-extinguishing, Generation of gas for.	The Clayton Fire extinguishing and Ventilating Company (Ltd.)	15844	7 Jan. ..	6	23 Jan.
Fish-plate bolt, Locking-device for	W. Wilkinson .. ..	16154	30 March ..	29	16 April.*
Flax-machine	W. B. Walters .. ..	15926	30 Jan. ..	9	5 Feb.*
Flax-stripper, Plummer-block for moor, Spreading polish on	D. Murphy .. ..	14891	19 May, 1902	9	5 Feb.
Flooring-cramp	J. Stewart .. ..	16090	12 March ..	25	2 April.*
Floors, &c., Dusting, cleaning, &c.	H. H. Henderson .. ..	14955	5 June, 1902	18	5 March.
Fluid-pressure brake-apparatus	M. Corrington .. ..	15898	23 Jan. ..	9	5 Feb.
Folding. (See Paper-folding.)					
Friction-springs .. ..	P. Hien .. ..	15979	12 Feb. ..	..	..
Frictional-resistance device ..	J. T. Hunter .. ..	16012	21 Feb. ..	43	28 May.
Front facing driver, Reflecting view of to	ERR S. G. Plucknett .. ..	16003	17 Feb. ..	18	5 March.*
Fuel. (See Artificial fuel.)					
Fuel-economizer for boilers. ..	G. W. Basley .. ..	15998	16 Feb. ..	18	5 March.
Fuel, Using carbonaceous liquid as	F. Cotton .. ..	15318	28 Aug., 1902	18	5 March.
Fumigation, Generating gas for	The Clayton Fire-extinguishing and Ventilating Company (Ltd.)	15844	7 Jan. ..	6	23 Jan.
Fur on skin, Dressing	G. Anderson .. ..	16141	26 March ..	25	2 April.
Furnace, Boiler- ..	H. E. Leighton .. ..	16116	21 March ..	..	..
Furnace, Ore-roasting ::	G. G. Turri .. ..	15942	5 Feb. ..	13	19 Feb.*
Furnace, Rotatable rabble for	G. G. Turri .. ..	15941	5 Feb. ..	13	19 Feb.*
Furnace, Steam-boiler	G. W. Basley .. ..	15998	16 Feb. ..	18	5 March.
Furnace, Supplying steam and air to	G. Claydon .. ..	15061	30 June, 1902	18	5 March.
Furniture, Cushioned	W. Aggers .. ..	15885	19 Jan. ..	0	5 Feb.*
Gallery for lamp-chimney	R. N. Adams .. ..	15932	30 Jan. ..	13	19 Feb.*
Game, Parlour-	T. Shine .. ..	16143	26 March ..	29	16 April.
Garbage-destroyer' ::	T. Rooke, J. Thrush, and T. F. W. Early	16107	19 March ..	25	2 April.
Gas-burner, Self-lighting fitting for	S. Shaw .. ..	14899	22 May, 1902	18	5 March.
Gas-engine, Causing explosion in	R. M. Murie .. ..	15966	11 Feb. ..	13	19 Feb.*
Gas-engine, Rendering noiseless	B. Crawford .. ..	15882	15 Jan. ..	18	5 March.*
Gas, Generation of, ..	W. H. Brooks .. ..	15959	10 Feb. ..	13	19 Feb.*
Gas, Generation of, for fumigation, &c. ::	The Clayton Fire-extinguishing and Ventilating Company (Ltd.)	15844	7 Jan. ..	6	23 Jan.
Gaseous-fluid compressor .. ..	C. W. Munson .. ..	16099	18 March ..	25	2 April.
Gate, Elevating .. ..	H. P. Wellman .. ..	15962	10 Feb. ..	13	19 Feb.*

## ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Gate-fastening .. ..	A. W. Giles	16021	25 Feb. ..	..	..
Gate-hinge .. ..	S. G. Jeffs	16897	23 Jan. ..	9	5 Feb.*
Gearing, Variable-speed .. ..	W. N. Dumaresq	16088	13 March ..	25	2 April.
Gelatine, Manufacture of .. ..	W. Cormack and J. G. F. Lowson	15767	17 Dec., 1902	21	19 March.
Generating electric current .. ..	F. E. Elmore	16077	11 March ..	25	2 April.
Generating steam from hot slag .. ..	H. A. Seymour	15851	9 Jan. ..	6	23 Jan.
Generation of gas .. ..	W. H. Brooks	15959	10 Feb. ..	13	19 Feb.*
Generation of gas for fumigation, &c.	The Clayton Fire extinguishing and Ventilating Company (Ltd.)	15844	7 Jan. ..	6	23 Jan.
Gig-seat .. ..	A. C. Atkin	16051	2 March ..	21	19 March.*
Glass, Grinding and polishing .. ..	E. Waters, jun.	16066	9 March ..	21	19 March.
Gold from black sand, Recovering .. ..	J. Shepherd	16123	24 March ..	25	2 April.*
Gold-saving apparatus .. ..	C. Corr	16001	17 Feb. ..	18	5 March.*
Gold, Treating river-material for .. ..	E. de N. de Loitte	16144	24 March ..	29	16 April.*
Governor, Engine- .. ..	W. J. M. Harvey	15835	7 Jan. ..	6	23 Jan.*
Grader, Road scoop and .. ..	A. W. Elder	16151	24 March ..	29	16 April.
Grain-dresser of thresher .. ..	J. E. Watkins	16153	30 March ..	29	16 April.
Grain drier and conditioner .. ..	H. Harraway	16068	9 March ..	21	19 March.
Grass-seed stripper .. ..	C. s. Alington	15981	13 Feb. ..	18	5 March.
Grinding and polishing glass .. ..	E. waters, jun.	16066	9 March ..	21	19 March.
Grip for handle of shears .. ..	S. F. Clare	15946	2 Feb. ..	13	19 Feb.*
Grip, Lowering, &c., boat-chock and .. ..	J. Stuart	16046	4 March ..	21	19 March.*
Grip-wheel for hauling .. ..	E. Seager	15944	5 Feb. ..	13	19 Feb.*
Grubber .. ..	J. Coop	16147	27 March ..	29	16 April.*
Guard-attachment to sheep-shears .. ..	J. McGrath	16056	6 March ..	21	19 March.
Guard, Candle- .. ..	P. E. Southward	16111	20 March ..	25	2 April.*
Hair curler and waver .. ..	J. D. Smith	15930	29 Jan. ..	13	19 Feb.*
Hair-pin .. ..	C. J. Cooze	16047	4 March ..	21	19 March.*
Halls, &c., Ventilating .. ..	J. D. Kelly, D. P. and N. V. G. Wix	14952	4 June, 1902	21	19 March.
Hand power punching machines .. ..	D. Donald	14559	25 Feb., 1902	6	23 Jan.
Handle for tennis-racquet, &c. .. ..	W. R. Cooper	15876	14 Jan. ..	9	5 Feb.*
Handle of sheep-shears, Grip for .. ..	S. F. Clare	15946	2 Feb. ..	13	19 Feb.*
Handling material, System of .. ..	HW. Blaisdell	15836	7 Jan. ..	6	23 Jan.
Hanging sash and slide .. ..	W. J. Alexander	16067	9 March ..	37	14 May.
Harvester, Shear-carrier of .. ..	T. V. Fahey	14637	15 March, '02	6	23 Jan.
Haulage, Compressor for .. ..	E. Seager	15945	5 Feb. ..	13	19 Feb.*
Hauling, Grip-wheel for .. ..	E. Seager	15944	5 Feb. ..	13	19 Feb.*
Haystack-cover .. ..	H. Ham	16018	23 Feb. ..	25	2 April.*
Heat-economizer, &c. .. ..	G. Fraser and L. Le B. Mount	15957	7 Feb. ..	18	5 March.*
Heat-economizer, &c. .. ..	H. E. Leighton	16117	21 March ..	..	..
Heater, Feed-water .. ..	W. I. Aston	16020	24 Feb. ..	18	5 March.*
Heating water .. ..	C. H. Verity	15777	30 Dec., 1902	13	19 Feb.*
Heel, Boot- .. ..	A. L. Heighton	16136	24 March ..	29	16 April.*
Heel, Boot and shoe .. ..	J. M. May	15861	12 Jan. ..	6	23 Jan.*
Heel, Boot and shoe elastic .. ..	J. C. and W. H. Harrop, and A. Linard	15931	29 Jan. ..	13	19 Feb.*
Heel-compressing machine .. ..	United Shoe Machinery Company	15827	5 Jan. ..	6	23 Jan.*
Heel-compressing machine .. ..	United Shoe Machinery Company	15828	5 Jan. ..	6	23 Jan.*
Heel-nailing machine .. ..	United Shoe Machinery Company	14697	3 April, 1902	13	19 Feb.
Height-adjusting window-attachment .. ..	H. Agar	16045	4 March ..	21	19 March.*
Hinge .. ..	J. E. Waygood	14858	8 May, 1902	13	19 Feb.*
Hinge, Gate- .. ..	S. G. Jeffs	15897	23 Jan. ..	9	5 Feb.*
Holder. (See Book-leaf holder, Cow-leg holder, Cow-tail holder.)					
Hook, Adjustable kettle- .. ..	F. H. Green	15904	26 Jan. ..	9	5 Feb.*
Hook, Split-link, &c. .. ..	J. Holms, jun.	15933	30 Jan. ..	13	19 Feb.*
Horse bolting with vehicle, Means for preventing .. ..	W. Campbell	16072	10 March ..	21	19 March.*
Horse-collar .. ..	H. O. Cassels and H. Preston	14568	28 Feb., 1902	6	23 Jan.
Horse-controlling gear .. ..	J. H. Grattan	16013	19 Feb. ..	18	5 March.*
Horse-cover .. ..	A. Hodge and W. Jones	14966	2 June, 1902	21	19 March.
Horse-cover fastener .. ..	J. Murphy	15500	10 Oct., 1902	13	19 Feb.
Horse, Preventing from bolting .. ..	T. Betts and G. Pirrit	15947	4 Feb. ..	13	19 Feb.*
Horse, Preventing from bolting .. ..	F. Matthews	15948	6 Feb. ..	13	19 Feb.*
Horse, Preventing from bolting .. ..	J. M. Morony	16135	25 March ..	29	16 April.*
Horse, Preventing from bolting .. ..	D. Matheson	16155	31 March ..	29	16 April.*
Horseshoes .. ..	S. G. Dickson	16029	27 Feb. ..	21	19 March.*
Hose, &c. .. ..	J. Glossop	16130	21 March ..	25	2 April.*
Hot cooking-utensils, Carrying .. ..	G. H. Watson	15943	5 Feb. ..	13	19 Feb.*
Hub for vehicle, Pneumatic .. ..	J. R. Hayne	16041	3 March ..	21	19 March.
Hydrant-valve .. ..	R. Le P. French	16030	27 Feb. ..	21	19 March.
Impervious to water, Making brickwork, &c.	J. J. Collins and R. D. Harman	14980	29 May, 1902	9	5 Feb.
Indicating approach of train .. ..	J. Cotterell and C. McIntyre, jun.	14297	2 Dec., 1901	9	5 Feb.
Indicating position of horse in race .. ..	W. Lvons	16014	19 Feb. ..	18	5 March.*
Infuser, Tea- .. ..	K. Raymond	15855	7 Jan. ..	6	23 Jan.*
Iron from sand, Separating .. ..	F. W. Taylor	16150	28 March ..	29	16 April.*
Ironsand, Extracting titanium from .. ..	C. F. Lungley	15917	29 Jan. ..	9	5 Feb.*
Ironsand, Making pig-iron, &c., from .. ..	C. F. Lungley	15918	29 Jan. ..	9	5 Feb.*
Ironsand, Smelting .. ..	A. Reid	16097	16 March ..	25	2 April.*
Joint. (See Metal-pipe joint.)					
Jointing-material for wood-paving, Mastic	C. M. Newson and M. Coulson	16039	26 Feb. ..	21	19 March.*

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Kettle-hook, Adjustable	F. H. Green	15904	26 Jan. ..	9	5 Feb.*
Kettle or pan bottom	H. E. Wilson	16052	2 March ..	21	19 March.*
Knife-cleaner	T. Wilkins	16023	25 Feb. ..	18	5 March.*
Knife-polisher and boot-cleaner	T. Napier..	15859	9 Jan. ..	6	23 Jan.*
Lacing-hook in shoe, Fastening	United Shoe Machinery Company	16108	19 March ..	25	2 April.
Ladder trigger or lock	C. Tandy	14841	5 May, 1902	13	19 Feb.
Lamp. (See Miners' safety-lamp.)					
Lamp-chimney, Gallery for	R. N. Adams	15932	30 Jan. ..	13	19 Feb.
Lamp, Oil-	J. F. C. Farquhar	14688	1 April, 1902	6	23 Jan.
Lasting-machine	United Shoe Machinery Company	14882	16 May, 1902	25	2 April.
Latch fastening for gate, Drop-	A. W. Gilce	16021	25 Feb. ..	..	..
Latrine, &c., Flushing	J. L. Williams	16164	30 Dec., 1902	..	..
Laying dust made in boring hole	T. J. Britten	15040	8 Jan. ..	6	23 Jan.
Leather, and treating same	P. Magnus	16139	26 March ..	29	16 April.*
Leather-splitting machine	W. D. Quigley and J. H. Gay	15963	10 Feb. ..	13	19 Feb.
Leaves of book, Holding	G. s. Budge	16065	9 March ..	21	19 March.*
Leaves of music, Turning	C. D. Hamilton	16080	12 March ..	25	2 April.
Leases of music, Turning	J. I. Bryers	15916	28 Jan. ..	9	5 Feb.*
Leg of cow, Holding	W. A. Collins	15425	19 Sept., 1902	9	5 Feb.
Leg of cow, Holding	W. S. Harkness	15858	9 Jan. ..	6	as Jan.
Leg of cow, Securing	F. H. Aussen	15867	14 Jan. ..	6	as Jan.
Letter-card, Pictorial	A. McKee	15905	26 Jan. ..	9	5 Feb.*
Letter-stamping machine, Automatic	J. H. Husband	15829	5 Jan. ..	6	23 Jan.*
Level, Spirit-	F. W. Crowther	16061	6 March ..	21	19 March.*
Life-saving raft	H. Williams	15934	2 Feb. ..	13	19 Feb.
Lighting system, Electric-	J. F. McElroy	16082	12 March ..	25	2 April.
Lighting trains, Electrically	A. B. Gill	15909	27 Jan. ..	9	5 Feb.
Lime-slaking apparatus	E. J. Parrott	14866	7 May, 1902	25	a April.
Lime, Treating	B. Eldred	16137	26 March ..	20	16 April.
Line. (See Clothes-line.)					
Liquid-distribution	E. S. Baldwin and H. H. Rayward	15968	12 Feb. ..	21	19 March.
Liquid from container, Drawing off	T. H. Ibbotson	16112	20 March ..	25	2 April.*
Liquid to high level, Raising	T. Taplin	14939	30 May, 1902	9	5 Feb.
Loaders, Ore.	T. M. Park	16142	26 March ..	..	..
Localising and detecting mineral deposits	W. E. Hughes	16076	11 March ..	..	..
Lock. (See Ladder-lock, Sash-lock.)					
Locking-device for fish-plats bolt	W. Wilkinson	16154	30 March ..	29	16 April.*
Locking-nut device	G. Beaumont	16149	25 March ..	29	16 April.*
Locking-nut device	G. Beaumont	16175	31 March ..	29	16 April.*
Log-hauling tramway-wagon, Driving	J. Shepherd	16124	24 March ..	25	2 April.*
Loose-leaf account-book	T. Foster and T. T. Paul	15911	24 Jan. ..	9	5 Feb.*
Lowering and canting boat-chock	J. Stuart	16046	4 March ..	21	19 March.*
Lubricator, Automatic	E. A. Holden	15873	12 Jan. ..	9	5 Feb.
Machinery-beltting, Securing ends of	H. F. Mander and F. Lewis	15987	17 Feb. ..	18	5 March.*
Magnetic separation of iron from sand	W. Taylor	16150	28 March ..	29	16 April.*
Magnetic separator, Electro-	R. McKnight	16106	19 March ..	25	2 April.*
Magnetic separator, Electrostatic-	E. G. Steele and W. Folsetter	15830	5 Jan. ..	6	23 Jan.*
Mail-marking machine	D. Robertson	14686	1 April, 1902	6	23 Jan.
Manure, Artificial	E. T. Horne and G. L. Jones	16035	26 Feb. ..	25	2 April.
Marking and branding stamp	A. McLeod	16085	11 March ..	25	2 April.*
Martingale	W. G. Geary	14943	31 May, 1902	25	2 April.
Mash-tun and wort-separator	M. Hanus	16089	12 March ..	25	2 April.
Massage-machine	E. Phillips	16049	4 March ..	21	19 March.
Mastic jointing-material for paving	C. M. Newson and M. Coulson	16039	26 Feb. ..	21	19 March.*
Mat-fastener	A. O. Bridgman	14822	30 April, 1902	9	5 Feb.
Match	H. Christensen	15863	13 Jan. ..	6	23 Jan.
Match	J. D. Rogan	16086	14 March ..	25	2 April.
Match, Antiseptic	D. L. Turner	16060	7 March ..	21	19 March.*
Measuring-tap	J. Watson and A. W. Crane	16050	2 March ..	21	19 March.
Mechanically prop'd vehicle	T. W. Barber	16129	21 March ..	29	16 April.
Medical battery	W. J. Barrie	15927	31 Jan. ..	13	19 Feb.
Medicine	S. Roche	15903	20 Jan. ..	13	19 Feb.
Metal. (See also Sheet-metal.)					
Metal mould and press	T. Stevenson	15902	23 Jan. ..	13	19 Feb.
Metal-pipe ring and joint	G. J. Hoskins	15974	12 Feb. ..	13	19 Feb.
Meter, Toe-piece for water-	B. Crawford	16032	28 Feb. ..	21	19 March.*
Microtelephone	E. Waters, jun.	16044	28 Feb. ..	21	19 March.
Milk-processor	R. J. Moore	16026	25 Feb. ..	18	5 March.*
Milking apparatus, Cow-	J. Hartnett and D. M. Robison	16109	19 March ..	25	2 April.*
Milking-apparatus, Pneumatic	A. Gillies	16022	25 Feb. ..	18	5 March.*
Milking-machine	G. Hutchinson	15894	23 Jan. ..	9	5 Feb.*
Milking-machine	W. Sim	16157	28 March ..	29	16 April.*
Milk-sterilising apparatus	E. S. Baldwin and H. H. Rayward	15865	14 Jan. ..	6	23 Jan.
Mine, Preventing accumulation of explosive-matter in	J. B. Daniels	16125	24 March ..	25	2 April.*
Mine, Purification of air in	W. P. Jarvis	15919	29 Jan. ..	9	5 Feb.*
Mineral deposit, Detecting, &c.	W. E. Hughes	16076	11 March ..	..	..
Miners' safety-lamp	A. Hankinson	15914	28 Jan. ..	9	5 Feb.
Minimising smoke in furnace	G. W. Basley	15998	16 Feb. ..	18	5 March.
Mitre-cutting device	R. Dunne	15881	15 Jan. ..	9	5 Feb.*
Mooring-apparatus	W. Beamish	16058	3 March ..	21	19 March.*
Motor	S. Jones	15936	2 Feb. ..	13	19 Feb.*

ALPHABETICAL LIST OF INVENTIONS *continued.*

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Motor car, Preventing side-slip of	S. Butler .. .. .	16178	31 March ..	29	16 April.
Motor, Explosion- .. .. .	J. A. Secor .. .. .	14571	3 March, '02	18	5 March.
Motor, Steam-turbine .. .. .	J. and E. H. Friend ..	16105	16 March ..	25	2 April.*
Mould. (See Metal-mould, Soap-mould.)					
Mould for artificial stone .. .. .	L. P. Ford .. .. .	16131	25 March ..	25	2 April.
Mould for plastic material .. .. .	A. W. Swift and R. Hall ..	15907	27 Jan. ..	9	5 Feb.
Moving liquid, Self-tilting table for	R. Harvey and C. J. Bruce ..	16132	25 March ..	25	2 April.
Mowing-machine .. .. .	J. W. Latimer .. .. .	16081	12 March ..	25	2 April.
Music-turner .. .. .	J. J. Bryers .. .. .	15916	28 Jan. ..	9	5 Feb.*
Music-turner .. .. .	C. D. Hamilton .. .. .	16080	12 March ..	25	2 April.*
Navigation of river .. .. .	W. Wickens .. .. .	16148	25 March ..	29	16 April.
Neck of bottle .. .. .	R. Potter .. .. .	16092	12 March ..	25	2 April.*
Necktie, Retaining in position .. .. .	T. Stephens .. .. .	16062	6 March ..	21	19 March.*
Noiseless, Making gas or oil engine	B. Crawford .. .. .	15882	15 Jan. ..	18	5 March.*
Non-refillable bottle .. .. .	R. A. Morgan and C. S. Johnston	15053	27 June, 1902	25	2 April.
Non-refillable bottle .. .. .	N. D. Hood .. .. .	15879	17 Jan. ..	9	5 Feb.*
Noxious plants, &c., Destroying	J. Findlay .. .. .	16009	18 Feb. ..	18	5 March.*
Nut and washer, Self-tightening	T. Hewton .. .. .	15880	15 Jan. ..	9	5 Feb.
Nut, Locking-device for .. .. .	G. Beaumont .. .. .	16149	25 March ..	29	16 April.*
Nut, Locking-device for .. .. .	G. Beaumont .. .. .	16175	31 March ..	29	16 April.*
O.G. spouting .. .. .	J. P. Evans .. .. .	14942	24 May, 1902	18	5 March.
Oil-engine, Causing explosion in	R. M. Murie .. .. .	15966	11 Feb. ..	13	19 Feb.*
Oil-engine, Rendering noiseless	B. Crawford .. .. .	15882	15 Jan. ..	18	5 March.*
Oil-lamp .. .. .	J. F. O. Farquhar : ..	14688	1 April, 1902	6	23 Jan.
Oil-separator .. .. .	J. Chambers and Son (Limited)	14670	25 Mar., 1902	25	2 April.
Oiler, carriage-axle .. .. .	A. Thompson and J. Roussell	14766	18 April, 1902	13	19 Feb.
Oiling vehicle-axle .. .. .	I. Taucher .. .. .	15956	9 Feb. ..	13	19 Feb.*
Oily impurities from water, Separating	H. T. Davis and E. Perrett ..	15854	9 Jan. ..	6	23 Jan.
Opening soda-water bottle .. .. .	S. White .. .. .	15921	27 Jan. ..	9	5 Feb.*
Opening tins with wire .. .. .	G. Holford .. .. .	16121	23 March ..	29	16 April.*
Operating air-brake on train .. .. .	J. Salinger .. .. .	15982	11 Feb. ..	18	5 March.
Ore concentrator, Dry- .. .. .	F. J. and J. H. McShane ..	16010	21 Feb. ..	18	5 March.
Ore-loader .. .. .	T. M. Park .. .. .	16142	26 March ..	25	2 April.*
Ore-roasting furnace .. .. .	G. G. Turri .. .. .	15949	5 Feb. ..	13	19 Feb.*
Ore, Treating copper- .. .. .	W. Payne and J. H. Gillies	15915	28 Jan. ..	9	5 Feb.
Oven, Coking- .. .. .	F. Z. Leiter .. .. .	16138	26 March ..	25	2 April.*
Overalls .. .. .	L. Le B. Mount : ..	16165	30 March ..	29	16 April.*
Packing rabbits, &c., Box for .. .. .	W. Moore and C. T. Kierman	14778	17 April, 1902	9	5 Feb.
Packing tea, Machine for .. .. .	A. H. Nathan .. .. .	15403	16 Sept., 1902	13	19 Feb.
Pan or kettle bottom .. .. .	H. E. Wilson .. .. .	16052	2 March ..	21	19 March.*
Paper-folding machine .. .. .	J. M. Twomey .. .. .	16059	6 March ..	21	19 March.*
Parlour-game .. .. .	T. Shine .. .. .	16143	26 March ..	29	16 April.
Patrol, &c., vessel .. .. .	A. N. Whitney .. .. .	15958	7 Feb. ..	13	19 Feb.*
Pavement, Mastic jointing-material for wood	C. M. Newson and M. Coulson	16039	26 Feb. ..	21	19 March.*
Paving-block tarring apparatus .. .. .	C. M. Newson and M. Coulson	15983	11 Feb. ..	21	19 March.*
Pedal-action of cycle .. .. .	J. Outred and J. McQueen ..	16084	10 March ..	25	2 April.
Peg for fixing rabbit-trap, &c. .. .	T. Morris .. .. .	15920	27 Jan. ..	9	5 Feb.*
Perambulator .. .. .	J. Ford and A. C. Murray ..	14870	9 May, 1902	21	19 March.
Perforating-attachment to sewing-machine	E. Spragg .. .. .	16104	14 March ..	25	2 April.*
Phormium tenax, Dressing and washing ..	G. Stafford and A. C. S. French	15977	13 Feb. ..	13	19 Feb.*
Photographic plate, Changing and developing	W. Thomas .. .. .	16016	20 Feb. ..	18	5 March.*
Pictorial letter-card .. .. .	A. McKee .. .. .	15905	26 Jan. ..	9	5 Feb.*
Picture-frame clamp .. .. .	A. J. H. Lange and H. White	15893	20 Jan. ..	9	5 Feb.*
Pig-iron from iron-sand, Making	C. F. Lungley .. .. .	15918	29 Jan. ..	9	5 Feb.*
Pigs, Yoke for .. .. .	A. Ward .. .. .	15901	21 Jan. ..	9	5 Feb.*
Pipe. (See Metal-pipe, Smoking-pipe, Tobacco-pipe.)					
Pivoting-arrangement for faulight, &c. ..	W. Turnbull .. .. .	14978	9 June, 1902	21	19 March.
Plant-thinner .. .. .	D. Clark .. .. .	16015	19 Feb. ..	18	5 March.*
Plastic material, Mould or die for	A. W. Swift and R. Hall ..	15907	27 Jan. ..	9	5 Feb.
Plough .. .. .	W. E. Reynolds .. .. .	15848	7 Jan. ..	6	23 Jan.
Plough, Disc- : : ..	F. A. Brand .. .. .	15925	30 Jan. ..	..	..
Plough-share .. .. .	A. M. White .. .. .	14827	25 April, 1902	6	23 Jan.
Plough, Steering .. .. .	E. M. McLauchlan .. .. .	15888	19 Jan. ..	9	5 Feb.*
Plummer-block .. .. .	D. Murphy .. .. .	14891	19 May, 1902	9	5 Feb.
Pneumatic hub for vehicle .. .. .	J. R. Hayne .. .. .	16041	3 March ..	21	19 March.
Pneumatic milking-machine	A. Gillies .. .. .	16022	25 Feb. ..	18	5 March.*
Pneumatic tire .. .. .	P. Magnus .. .. .	16140	26 March ..	25	2 April.
Poisoning birds .. .. .	J. Webb .. .. .	16034	26 Feb. ..	21	19 March.*
Polish on Boor, Spreading .. .. .	J. Stewart .. .. .	16090	12 March ..	25	2 April.*
Polishing and grinding glass .. .. .	E. Waters, j u n .. .. .	16066	9 March ..	21	19 March.
Polishing floors, &c., Apparatus for	H. H. Henderson .. .. .	14955	5 June., 1902	18	5 March.
Portable building .. .. .	D. Brummer .. .. .	15651	23 Nov., 1901+	18	5 March.
Preserving eggs, &c. .. .. .	R. W. Ashcroft, W. J. Maddren, and S. Ashcroft	16095	16 March ..	25	2 April.*
Press. (See Metal-press, Trouser-press, Wool-press.)					
Printing-machine, Paper-folding apparatus for	J. M. Twomey .. .. .	16059	6 March ..	21	19 March.*
Printing sheep-bags, &c. .. .. .	D. Urquhart .. .. .	15891	20 Jan. ..	9	5 Feb.*



ALPHABETICAL LIST OF INVENTIONS continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Probe for test of cow .. ..	C. Ridd and C. E. Young .. ..	15964	10 Feb. ..	13	19 Feb.'
Protecting bucket-tumbler from wear ..	F. W. Payne .. ..	15939	2 Feb. ..	25	2 April.
Pump .. ..	W. H. Madill .. ..	14509	10 Feb., 1902	21	19 March.
Pump, Air and bicycle .. ..	H. F. Mander and F. Lewis .. ..	15986	17 Feb. ..	18	5 March.*
Punching-machine .. ..	D. Donald .. ..	14559	25 Feb., 1902	6	23 Jan.
Purification of air in mine-working ..	W. P. Jarvie .. ..	15919	29 Jan. ..	9	5 Feb.'
Rabbits, Destroying .. ..	H. B. Parker .. ..	15985	13 Feb. ..	18	5 March.*
Rabbits, fish. &c., Box for .. ..	W. Moore and C. T. Kiernan .. ..	14778	17 April, 1902	9	5 Feb.
Rabbit-skin, Dressing fur on .. ..	G. Anderson .. ..	16141	26 March ..	25	2 April.
Rabbit-trap .. ..	W. C. H. Hudson .. ..	15971	12 Feb. ..	3	19 Feb.'
Rabbit-trap, Peg for .. ..	S. F. Clare .. ..	16094	12 March ..	25	2 April.*
Rabbit-trap, Peg for .. ..	T. Morris .. ..	15920	27 Jan. ..	9	5 Feb.*
Rabbit for furnace .. ..	G. G. Turri .. ..	15941	5 Feb. ..	13	19 Feb.*
Race, Indicating positions in horse- ..	W. Lyons .. ..	16014	19 Feb. ..	18	5 March.*
Race-starting gate .. ..	A. Lyell .. ..	14962	6 June, 1902	6	23 Jan.
Raft, Life-saving .. ..	H. Williams .. ..	15934	2 Feb. ..	13	19 Feb.*
Raft, Ship's .. ..	Union Steamship Company of New Zealand (Limited) .. ..	15975	12 Feb. ..	21	19 March.
Raft, Ship's .. ..	J. Waymouth .. ..	16028	23 Feb. ..	21	19 March.*
Rails, Connecting ends of .. ..	S. Shuker .. ..	16031	27 Feb. ..	21	19 March.*
Rails, Securing fastenings of .. ..	J. E. Tonkin, W. Ames, and W. E. H. Nicolle .. ..	15995	18 Feb. ..	25	2 April.
Railway. (See Electric railway.)					
Railway-brake, Fluid-pressure .. ..	M. Corrington .. ..	15998	23 Jan. ..	9	5 Feb.
Railway-rolling-stock coupling .. ..	C. A. Johnson .. ..	15969	12 Feb. ..	13	19 Feb.'
Railway-traction, Electro-magnetic ..	D. W. Balch .. ..	15826	5 Jan. ..	6	23 Jan.
Rain-excluder for door .. ..	E. R. Ludbrook and A. B. and G. C. Jackson .. ..	15222	5 Aug., 1902	6	23 Jan.
Raising liquid to high level .. ..	T. Taplin .. ..	14939	30 May, 1902	9	5 Feb.
Raising sunken vessel .. ..	D. C. Groves and A. R. Stanton .. ..	16096	16 March ..	25	2 April.*
Razor, Safety- .. ..	K. C. Gillette .. ..	15872	15 Jan. ..	9	5 Feb.'
Receiver, Current-operated, for electro-magnetic waves .. ..	R. A. Fessenden .. ..	15847	7 Jan. ..	6	23 Jan.
Recorder, &c., Mechanical .. ..	W. E. Hughes .. ..	14809	1 May, 1902	9	5 Feb.'
Recovering gold from black sand .. ..	J. Shepherd .. ..	16123	24 March ..	25	2 April.*
Reducing-valve .. ..	M. Lumley .. ..	15845	7 Jan. ..	6	23 Jan.
Refilling of bottle, Preventing .. ..	R. Garnham .. ..	15952	6 Feb. ..	13	19 Feb.'
Reflecting view of car to front facing driver .. ..	S. G. Plucknett .. ..	16003	17 Feb. ..	18	5 March.*
Register, &c., Mechanical .. ..	W. E. Hughes .. ..	14809	1 May, 1902	9	5 Feb.'
Regulator. (See Damper-regulator, Shear-regulator, Spring-regulator.)					
Resistance-device, Spring, &c. .. ..	J. T. Hunter .. ..	16012	21 Feb. ..	13	28 May.
Rest, Billiard- .. ..	J. H. Noonan and T. B. O'Connor .. ..	16158	28 March ..	29	16 April.*
Retaining necktie on collar .. ..	T. Stephens .. ..	16062	6 March ..	21	19 March.*
Revolving chair, table, &c. .. ..	H. J. Bettany .. ..	15866	14 Jan. ..	6	23 Jan.*
Revolving screen .. ..	W. McCallum .. ..	15874	14 Jan. ..	9	5 Feb.
Rifle-carrier, Bandolier and .. ..	E. H. B. Laing and G. W. Clarke .. ..	15999	16 Feb. ..	18	5 March.
Ring and joint. (See Metal-pipe ring and joint.)					
Ripening cream, &c. .. ..	E. S. Baldwin and H. H. Rayward .. ..	15865	14 Jan. ..	6	23 Jan.
River-material, Extracting gold from ..	E. de N. de Loitte .. ..	16144	24 March ..	29	16 April.*
River, Navigation of .. ..	W. Wickens .. ..	16148	25 March ..	29	16 April.
Road-barrier .. ..	H. E. R. Rayner .. ..	15949	3 Feb. ..	13	19 Feb.*
Road scoop and grader .. ..	A. W. Elder .. ..	16151	24 March ..	29	16 April.
Road-sweeper, &c. .. ..	W. Brierley and G. Fraser .. ..	16070	6 March ..	21	19 March.*
Roadster and gig seat .. ..	A. C. Atkin .. ..	16051	2 March ..	21	19 March.*
Roasting. (See Ore-roasting.)					
Rock-boring, Drill for .. ..	A. McLeod .. ..	15869	10 Jan. ..	9	5 Feb.-
Rock-drilling machine, Sharpening .. ..	A. Purser, F. W. Jenkins, and C. E. M. Millar .. ..	15852	9 Jan. ..	..	..
Rocker .. ..	J. G. Bartlett .. ..	16127	21 March ..	29	16 April.*
Rocker for children .. ..	J. R. Flanagan .. ..	16118	21 March ..	25	2 April.*
Roller for typewriter .. ..	W. H. Stebbing and J. H. Colwill .. ..	16093	12 March ..	25	2 April.*
Rolling-stock coupling .. ..	C. A. Johnson .. ..	15969	12 Feb. ..	13	19 Feb.'
Rotary fluid-engine .. ..	Cooley Development Company .. ..	16100	18 March ..	25	2 April.
Rowlock, Boat- .. ..	J. Rutland and W. H. Smith .. ..	16027	25 Feb. ..	18	5 March.
Running away, Preventing horse from ..	W. Campbell .. ..	16072	10 March ..	21	19 March.*
Rusticated weatherboarding .. ..	T. Herbert .. ..	16005	17 Feb. ..	..	..
Safety-lamp, Miners' .. ..	A. Hankinson .. ..	15914	28 Jan. ..	9	5 Feb.
Safety-razor .. ..	K. C. Gillette .. ..	15872	15 Jan. ..	9	5 Feb.*
Sash, &c., Hanging .. ..	W. J. Alexander .. ..	16067	9 March ..	37	14 May.
Sash-fastener .. ..	A. W. F. Lorie .. ..	15929	30 Jan. ..	13	19 Feb.*
Sash-lock .. ..	O. Wall and R. C. Hughes .. ..	16083	18 March ..	25	2 April.
Sash, Supporting window- .. ..	H. E. M. Gordon .. ..	15928	31 Jan. ..	13	19 Feb.*
Sashes, Hanging .. ..	R. L. Lockerbie .. ..	15922	27 Jan. ..	9	5 Feb.*
Saw-setting instrument .. ..	G. R. Hamilton and R. Te Rangi .. ..	16122	24 March ..	25	2 April.*
Scaffolding-bracket .. ..	J. H. Fairhurst .. ..	16019	23 Feb. ..	18	5 March.
Sconce for candlestick .. ..	A. R. Hardy .. ..	15875	14 Jan. ..	9	5 Feb.*
Screen, Revolving .. ..	W. McCallum and E. Roberts .. ..	15874	14 Jan. ..	9	5 Feb.
Screenings, Making .. ..	R. Davidson .. ..	16152	26 March ..	..	..
Sealing and filling bottle .. ..	H. A. Penrose .. ..	16071	10 March ..	21	19 March.

## ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Seat, Roadster, and gig ..	A. C. Atkin ..	16051	2 March ..	21	19 March.*
Secondary battery ..	C. T. J. Oppermann ..	15960	10 Feb. ..	13	19 Feb.
Securing doors, windows, &c. ..	J. D. Tripe ..	15838	6 Jan. ..	6	23 Jan.*
Securing ends of machinery-belt	H. F. Mander and F. Lewis ..	15987	17 Feb. ..	18	5 March.*
Securing fastening of rails ..	J. E. Tonkin, W. Ames, and W. E. H. Nicolle ..	15995	18 Feb. ..	25	2 April.
Securing front of animal-cover ..	A. S. Hasell ..	16038	2 March ..	21	19 March.*
Securing handle to broom-head ..	D. M. Brooks ..	15980	14 Feb. ..	21	19 March.
Seed-sower ..	W. E. Chamberlain ..	15806	23 Dec. ..	21	19 March.
Seed-sower ..	H. Kerr ..	15910	24 Jan. ..	9	5 Feb.*
Seed-sowing apparatus ..	M. McCormick ..	14727	7 April, 1902 ..	6	23 Jan.
Selective signalling by electro-magnetic waves ..	R. A. Fessenden ..	15846	7 Jan. ..	6	23 Jan.
Selenotrope and Tellurian ..	A. Hosking ..	15895	20 Jan. ..	13	19 Feb.
Self-lighting fitting for gas-burner ..	S. Sham ..	14899	22 May, 1902 ..	18	5 March.
Self-tightening nut and washer ..	T. Hewton ..	15880	15 Jan. ..	9	5 Feb.
Self-tilting table ..	R. Harvey and C. J. Bruce ..	16132	25 March ..	25	2 April.
Separating iron from sand ..	F. W. Taylor ..	16150	28 March ..	29	16 April.*
Separating oily impurities from water ..	H. T. Davis and E. Perrett ..	15854	9 Jan. ..	6	23 Jan.
Separator. (See Centrifugal separator, Cream-separator, Magnetic separator, oil-separator.)					
Sewage on to filter-beds, Distributing ..	E. S. Baldwin and H. H. Raymond ..	15968	12 Feb. ..	21	19 March.
Sewing-machine, Perforating-attachment to Sewing-machine. (See Blind-stitch sewing-machine, Shoe-sewing machine.)	E. Spragg ..	16104	14 March ..	25	a April.*
Shaft, Dredge-tumbler ..	E. Roberts ..	16057	3 March ..	25	2 April.
Sheaf-carrier of harvester ..	J. V. Fahey ..	14637	15 March, '02 ..	6	23 Jan.
Shear-blades crossing, Preventing ..	J. Raid ..	15976	10 Feb. ..	13	19 Feb.
Shear-regulator ..	C. V. Affleck ..	15953	5 Feb. ..	13	19 Feb.*
Shearing-machine, Metal ..	D. Donald ..	14559	25 Feb., 1902 ..	6	23 Jan.
Shears, Thumb and guard attachment for ..	J. McGrath ..	16056	6 March ..	21	19 March.
Sheep-bags, Printing ..	D. Urquhart ..	15891	20 Jan. ..	9	5 Feb.*
Sheep-dipping apparatus ..	S. E. Denniston ..	15992	13 Feb. ..	18	5 March.
Sheep-drafting apparatus ..	J. Dick ..	16006	20 Feb. ..	18	5 March.
Sheep-shears ..	C. J. Shipway and H. May ..	14932	29 May, 1902 ..	6	25 Jan.
Sheep-shears ..	H. Hartree ..	16054	4 March ..	21	19 March.*
Sheep-shears, Grip for handle of ..	S. F. Clare ..	15946	2 Feb. ..	13	19 Feb.
Sheet-metal can or box ..	F. W. Feaver ..	15856	10 Jan. ..	9	5 Feb.
Sheet metal into cubes, Forming ..	W. H. Pearson ..	16114	18 March ..	29	16 April.
Shell for cream-separator ..	T. a. Vickery ..	15900	21 Jan. ..	9	5 Feb.*
Shield for stay-busk ..	A. F. Wall ..	14703	4 April, 1902 ..	6	23 Jan.
Ship, Mounting billiard-table in ..	W. McKenzie ..	15979	14 Feb. ..	13	19 Feb.*
Ship's raft ..	Union Steamship Company of New Zealand (Limited) ..	15975	12 Feb. ..	21	19 March.
Ship's raft ..	J. Waymouth ..	16028	23 Feb. ..	21	19 March.*
Ship's telegraph ..	J. Ormiston ..	15832	6 Jan. ..	6	as Jan.*
Shoe, Fastening lacing-hooks in ..	United Shoe Machinery Company ..	16108	19 March ..	25	2 April.
Shoe-sewing machine ..	United Shoe Machinery Company ..	16108	19 March ..	25	2 April.
Side-slip of cycle, Preventing ..	S. Butler ..	16178	31 March ..	29	16 April.
Signalling-apparatus for cable-tramway ..	W. J. Dunstan ..	16176	31 March ..	29	16 April.
Signalling by electro-magnetic waves ..	R. A. Fessenden ..	15846	7 Jan. ..	6	23 Jan.
Signalling-system for electric railway ..	W. E. Hughes ..	15908	27 Jan. ..	9	5 Feb.
Single or poly-phase current source, Obtaining unidirectional current from ..	P. Campbell ..	15898	23 Jan. ..	9	5 Feb.
Siphon ..	J. W. Tong ..	15877	19 Jan. ..	9	5 Feb.
Skidding of cycle, &c., Preventing ..	S. Butler ..	16178	31 March ..	29	16 April.
Skylight ..	J. D. Florant ..	15970	12 Feb. ..	13	19 Feb.*
Slag, Generating steam from hot ..	H. A. Seymour ..	15851	9 Jan. ..	6	23 Jan.
Slaking lime, Apparatus for ..	E. J. Parrott ..	14866	7 May, 1902 ..	25	2 April.
Slicer, Cucumber, &c. ..	M. C. Cossar ..	16156	31 March ..	29	16 April.*
Sluice-box, Withdrawing material from ..	J. Thomson ..	15849	5 Jan. ..	6	23 Jan.*
Smelting iron-ore ..	A. Reid ..	16097	16 March ..	25	2 April.*
Smoke-abatement arrangement ..	G. Fraser and L. Lei. Mount ..	15957	7 Feb. ..	18	5 March.*
Smoke-consumer ..	H. E. Leighton ..	16117	21 March ..	..	..
Smoke-minimiser ..	G. W. Basley ..	15998	16 Feb. ..	18	5 March.
Smoke or spark arrester ..	B. Crawford ..	15882	15 Jan. ..	18	5 March.*
Smoking-pipe clip ..	G. Aldous ..	15984	16 Feb. ..	18	5 March.
Soap-moulding machine ..	K. Schnetzer ..	15727	3 Dec., 1902 ..	18	5 March.
Sodawater-bottle opener ..	S. White ..	15921	27 Jan. ..	9	5 Feb.*
Sole for boot or shoe ..	E. Dimant ..	15101	10 July, 1902 ..	6	23 Jan.
Sower. (See Seed-sower.)					
Sowing seed and cereals ..	W. E. Chamberlain ..	15806	23 Dec., 1902 ..	21	19 March.
Spark-arrester ..	H. Gunn ..	14859	6 May, 1902 ..	13	19 Feb.*
Spark-arrester ..	B. Crawford ..	15882	15 Jan. ..	18	5 March.*
Spark-extinguisher ..	C. W. Haines ..	14857	8 May, 1902 ..	13	19 Feb.
Speed-gearing. (See Pedal-action and speed, Variable-speed gearing.)					
Spinning-top ..	J. C. Corbett ..	16181	31 March ..	29	16 April.*
Spirit-level ..	F. W. Crowther ..	16061	6 March ..	21	19 March.*
Split-link, hook, &c. ..	J. Holms, jun. ..	15983	30 Jan. ..	13	19 Feb.*
Splitting. (See Leather-splitting.)					
Spouting ..	J. P. Evan ..	14942	24 May, 1902 ..	18	5 March.
Spreading polish on floors ..	J. Stewart ..	16090	12 March ..	25	2 April.*

## ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Spring-catch for windows ..	J. T. Young and J. Wren ..	15839	8 Jan. ..	6	23 Jan.
Spring-regulator, &c., for vehicle ..	M. Browne ..	15890	16 Jan. ..	9	5 Feb.
Spring-resistance device ..	J. T. Hunter ..	16012	21 Feb. ..	43	28 May.
Springs, Friction- ..	P. Hien ..	15973	12 Feb. ..	..	..
Stack, Cover for hay, &c. ..	H. Ham ..	16018	23 Feb. ..	25	2 April.*
Stamp, Marking or branding ..	A. McLeod ..	15085	11 March ..	25	2 April.*
Stamping letters, packets, &c., Automatic ..	J. H. Husband ..	15829	5 Jan. ..	6	23 Jan.*
Stamping machine, &c., Metal- ..	D. Donald ..	14559	25 Feb., 1902	6	33 Jan.
Starting-gate, Race ..	A. Lyell ..	14962	6 June, 1902	6	23 Jan.
Stay-busk shields ..	A. F. Wall ..	14703	4 April, 1902	6	23 Jan.
Steam and air to furnace, Supplying ..	G. Claydon ..	15061	30 June, 1902	18	5 March.
Steam-boiler furnace ..	G. W. Basley ..	15998	16 Feb. ..	18	5 March.
Steam-engine, Compounded ..	R. P. Gibbons ..	15537	18 Oct., 1902	18	5 March.
Steam from hot slag, Generating ..	H. A. Seymour ..	15851	9 Jan. ..	6	23 Jan.
Steam-turbine ..	G. Westinghouse ..	16017	23 Feb. ..	18	5 March.
Steam-turbine motor ..	J. and E. H. Friend ..	16105	16 March ..	25	2 April.*
Steering plough, Means for ..	E. M. McLauchlan ..	15888	19 Jan. ..	9	5 Feb.*
Sterilising bones, &c. ..	J. A. Pond ..	15896	20 Jan. ..	9	5 Feb.*
Sterilising milk, &c. ..	E. S. Baldwin and H. H. Rayward ..	15865	14 Jan. ..	6	23 Jan.
Stirring auriferous material ..	P. Ferguson ..	15965	11 Feb. ..	..	..
stone. (See Artificial stone.) ..	J. J. Collins and R. D. Harman ..	14930	29 March, 1902	9	5 Feb.
Stonework impervious to water, Making ..	Sir W. G. Armstrong, Whitworth, and Co. (Limited)	16161	3 March	25	a April.
Stop for holding tipping-wagon ..	F. J. Fletcher ..	15997	18 Feb., 1902	18	15 March.
Stopping and filling bottle ..	T. Russell ..	14921	26 May, 1902	13	5 March.
Strainer. (See Clothes-line strainer, Wire-strainer.) ..	C. S. Alington ..	15981	13 Feb. ..	18	5 March.
Street-sweeping machine ..	D. C. Graves and A. R. Stanton ..	16096	16 March ..	25	2 April.*
stripper for grass-seed ..	G. Claydon ..	15061	30 June, 1902	18	5 March.
Sunken vessel, Raising ..	H. F. Nelson ..	16079	10 March ..	25	2 April.*
Supplying steam and air to furnace ..	W. Greenshields ..	16115	21 March ..	25	2 April.*
Supporting clothes-line ..	W. Brierley and G. Fraser ..	16070	6 March ..	21	19 March.*
Suspenders ..	T. Russell ..	14921	26 May, 1902	18	5 March.
Sweeper and collector, Road ..	W. Russell ..	14921	26 May, 1902	18	5 March.
Sweeping machine, Street- ..	W. Turnbull ..	14978	9 June, 1902	21	19 March.
Swinging window, Pivoting-arrangement for ..	W. D. Wilson ..	16146	25 March ..	29	16 April.*
Swingle-tree iron ..	H. O. Wolterreck ..	15892	21 Jan. ..	9	5 Feb.
Synthesis, Producing ammonia by ..	H. W. Blaisdell ..	15836	7 Jan. ..	6	23 Jan.
System of handling material ..	H. J. Bettany ..	15866	14 Jan. ..	6	23 Jan.
Table, Revolving ..	O. C. Neal ..	16113	20 March ..	25	2 April.
Tail of cow, Holding ..	G. H. Irvine ..	16048	4 March ..	21	19 March.
Tan, Extracting, from bark ..	G. Helmer ..	16042	3 March ..	21	19 March.
Tap ..	G. Meldrum ..	16064	6 March ..	21	19 March.*
Tap, Filter for ..	J. McLean and P. Ellis ..	16037	2 March ..	21	19 March.*
Tap for drawing off beer, &c. ..	J. Watson and A. W. Crane ..	16050	2 March ..	21	19 March.
Tap, Measuring- ..	A. J. Ellis ..	15994	18 Feb. ..	18	5 March.
Taps embossing, &c., machine: ..	C. M. Newson and M. Coulson ..	15983	11 Feb. ..	21	19 March.*
Tar, Applying boiling, to wood blocks ..	T. Willmot and M. T. Morgan ..	16043	3 March ..	21	19 March.
Tarring apparatus. Block- ..	K. Raymond ..	15855	7 Jan. ..	6	23 Jan.*
Tea-infuser ..	A. H. Nathan ..	15403	16 Sept., 1902	13	19 Feb.
Tea-packing machine ..	C. Ridd and C. E. Young ..	15964	10 Feb. ..	13	19 Feb.*
Teat of cow, Probe for ..	J. Ormiston ..	15832	6 Jan. ..	6	23 Jan.*
Telegraph, Ship's ..	A. Hosking ..	15895	20 Jan. ..	13	19 Feb.
Tellurian and selenotrope ..	W. R. Cooper ..	15876	14 Jan. ..	9	5 Feb.*
Tennis-racquet handle ..	T. Norris ..	15920	27 Jan. ..	9	5 Feb.*
Tent-rope, Peg for fixing ..	D. Clark ..	16015	19 Feb. ..	18	5 March.*
Thinning plants sown in ridge ..	United Shoe Machinery Company ..	15938	4 Feb. ..	13	19 Feb.
Thread-waxing apparatus ..	J. E. Watkins ..	16153	30 March ..	29	16 April.
Thrashing-machine, Grain-dresser of ..	J. McGrath ..	16056	6 March ..	21	19 March.
Thumb and guard attachment to sheep-shears ..	G. Holford ..	16121	23 March ..	29	16 April.*
Tin, Opening, with wire ..	G. Hall ..	16042	3 March ..	21	19 March.
Tin, Tap for ..	Sir W. G. Armstrong, Whitworth, and Co. (Limited)	16133	25 March ..	25	2 April.
Tipping-wagon ..	C. Tandy ..	14842	5 March, '02	13	19 Feb.
Tire ..	P. Magnus ..	16140	26 March ..	25	2 April.
Tire, Pneumatic ..	F. Lungley ..	15917	29 Jan. ..	9	5 Feb.*
Titanium from ironsand, Extracting ..	J. Warwood ..	15950	3 Feb. ..	13	19 Feb.*
Tobacco-cutter ..	E. T. Towgood, Y. S. Towgood, J. and J. Allison	16074	19 April, 1902	6	23 Jan.
Tobacco-pipe ..	H. E. J. Morgan ..	16055	6 March ..	21	19 March.*
Toe-piece for water-meter ..	B. Crawford ..	16032	28 Feb. ..	21	19 March.*
Top, Spinning- ..	J. C. Corbett ..	16181	31 March ..	29	16 April.*
Torch, Antiseptic ..	D. L. Turner ..	16060	7 March ..	21	19 March.*
Traction. (See Railway-traction.) ..	A. B. Gill ..	15909	27 Jan. ..	9	5 Feb.
Train, Electrically lighting ..	J. Cotterill and C. McIntyre, jun. ..	14297	2 Dec., 1901	9	5 Feb.
Train, Indicating approach of ..	S. G. Plucknett ..	16003	17 Feb. ..	18	5 March.*
Tramcar, Reflecting view of, to driver ..	W. J. Dunstan ..	16176	31 March ..	29	16 April.*
Tramway, Signalling-apparatus for cable- ..					
Trap. (See Animal-trap, Rabbit-trap.) ..					

## ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Applicator.		Gazette.	
		No.	Date.	No.	Date.
Tread for boot or shoe, Divided	E. Dimant	15101	10 July, 1902	6	23 Jan.
Treating lime	B. Eldred	16137	26 March	29	16 April.*
Trigger. (See Ladder-trigger.)					
Triple valve of Westinghouse brake	W. J. Hopkirk and G. Gilpin	15368	14 Jan.	6	23 Jan.*
Tripping-block	G. Davidson	14558	24 Feb., 1902	13	19 Feb.
Trough for underground cable..	T. E. Devonshire	16134	25 March	..	..
Trouser press and stretcher	A. G. Barton	16078	10 March	25	2 April.
Trousers, Working-men's	L. Le B. Mount	16165	30 March	29	16 April.*
Trumpet, Ear-	T. W. Messenger	14721	8 April, 1902	6	23 Jan.
Tumbler, Dredge-	T. J. Davys and W. J. Wallace	16145	23 March	29	16 April.*
Tumbler of dredge, Bottom	J. Duncan	15341	8 Jan.	6	23 Jan.*
Tumbler, Protecting bucket-	F. W. Payne	15939	2 Feb.	25	2 April.
Tumbler shaft, Dredge lower-	E. Roberts	16057	3 March	25	2 April.*
Turbine motor, Steam-	J. and E. H. Friend	16105	16 March	25	2 April.*
Turbine, Steam-	G. Westinghouse	16017	23 Feb.	18	5 March.
Typewriter-roller	W. H. Stebbing and J. H. Colwill	16093	12 March	25	2 April.*
Umbrella, Sliding ferrule for	J. Coventry	15989	14 Feb.	18	5 March.*
Underground cable, Conduit for	T. E. Devonshire	16134	25 March	..	..
Unidirectional current, Obtaining	J. P. Campbell	15906	27 Jan.	9	5 Feb.
Utilising waste light of shop for advertising	H. Ashworth	16004	20 Feb.	18	5 March.*
Vacuum-pan for distillation	D. R. S. Galbraith	16103	14 March	25	2 April.*
Valve	J. Cook	14880	15 May, 1902	13	19 Feb.
Valve for water-cistern, Ball-	W. A. J. Dutch and C. H. Barton	16102	18 March	25	2 April.
Valve, Hydraulic	R. Le P. Trench	16030	27 Feb.	21	19 March.
Valve of Westinghouse brake, Triple	W. J. Hopkirk and G. Gilpin	15868	14 Jan.	6	23 Jan.*
Valve, Reducing-	M. Lumley	15845	7 Jan.	6	23 Jan.
Vapour-burning apparatus	A. Kitson	15886	19 Jan.	33	30 April.
Vapour-burning apparatus	A. Kitson	15887	19 Jan.	9	5 Feb.
Vapour-burning apparatus	A. Kitson	16040	17 June, 1902	21	19 March.
Variable-speed gearing	W. N. Dumaresq	16088	13 March	25	2 April.
Vehicle-axle oiler	I. Taucher	15956	9 Feb.	13	19 Feb.*
Vehicle-body adjustment	G. Bish	15924	27 Jan.	9	5 Feb.*
Vehicle, Means for preventing horse bolting with	W. Campbell	16072	10 March	21	19 March.
Vehicle, Mechanically propelled	T. W. Barber	16129	21 March	29	16 April.
Vehicle-spring regulator	M. Browne	15890	16 Jan.	9	5 Feb.*
Ventilating halls, &c.	J. D. Kelly, D. P. Fisher, and N. V. G. Wix	14952	4 June, 1902	21	19 March.
Ventilator	W. Craig	14875	10 May, 1902	9	5 Feb.
Vessel for patrol, despatch, &c.	A. N. Whitney	15958	7 Feb.	13	19 Feb.*
Vessel, Raising sunken	D. C. Groves and A. R. Stanton	16096	16 March	25	2 April.*
wagon, Buffer for tipping-	Sir W. G. Armstrong, Whitworth, and Co. (Limited)	16133	25 March	25	2 April.
Wagon, Driving log-hauling tramway-	J. Shepherd	16124	24 March	25	2 April.
Wagon or carrier, Bucket	H. W. Lovegrove	14928	24 May, 1902	21	19 March.
Waist-belt, rifle-carrier, and bandolier	E. H. B. Laing and G. W. Clarke	15999	16 Feb.	18	5 March.
Wall-distemper	C. W. B. Scott	15899	23 Jan.	9	5 Feb.
Wall, &c., Dusting, cleaning, &c.	H. H. Henderson	14955	5 June, 1902	18	5 March.
Washer, Self-tightening nut and	T. Hewton	15880	15 Jan.	9	5 Feb.
Washing copper, Combustion-chamber, &c., for	F. J. Newberry and A. Walker	15853	9 Jan.	6	23 Jan.
Washing, &c., fibre	W. Toogood	14715	7 April, 1902	21	19 March.
Washing wool	A. Weaver	15519	14 Oct., 1902	9	5 Feb.
Waste-converter	A. E. Niccolls	16179	31 March	43	28 May.
Water-cistern, Ball-valve for	W. A. J. Dutch and C. H. Barton	16102	18 March	25	2 April.
Water, Composition for rendering brick, &c., impervious to	J. J. Collins and R. D. Harman	14930	29 May, 1902	9	5 Feb.
Water-heating. (See Heating.)					
Water-meter, Toe-piece for	B. Crawford	16032	28 Feb.	21	19 March.*
Waver and curler, Hair	J. D. Smith	15930	29 Jan.	13	19 Feb.*
Waxing apparatus. (See Thread-waxing apparatus.)					
Wearing-apparel, Making button-holes in	L. G. W. Godden	15883	17 Jan.	9	5 Feb.*
Weather-boarding, Rusticated.	T. Herbert	16005	17 Feb.	..	..
Weed-destroying composition	J. Findlay	16009	18 Feb.	18	5 March.
Weed-destroying composition	T. M. Hickman	16063	6 March	21	19 March.*
Weighing-machine	H. A. and R. V. Danne and J. Donaldson	16000	19 Feb.	18	5 March.
Weight-compensator, &c., for vehicle	M. Browne	15890	16 Jan.	9	5 Feb.*
Westinghouse brake, Triple-value of	W. J. Hopkirk and G. Gilpin	15868	14 Jan.	6	23 Jan.*
Wharfedale, &c., printing-machine, Paper-folding attachment to	J. M. Twomey	16059	6 March	21	19 March.*
Wheel. (See Grip-wheel.)					
Winch for dredge, Compound	W. Cutten	15857	8 Jan.	6	23 Jan.
Window	R. S. Reid	14867	1 May, 1902	9	5 Feb.
Window-attachment	H. Agar	16045	4 March	21	19 March.
Window-catch	T. Young and J. Wren	15839	8 Jan.	6	23 Jan.
Window, &c., Securing	J. D. Trips	15038	6 Jan.	6	23 Jan.*
Window-sash, Supporting	H. E. M. Gordon	15928	31 Jan.	13	19 Feb.*
Wire bar, Manufacturing compound	R. D. Sanders	14813	1 May, 1902	9	5 Feb.
Wire fence	J. Harris	15831	5 Jan.	6	23 Jan.
Wire rope, Compressor for	E. Seager	15945	5 Feb.	13	19 Feb.*

ALPHABETICAL LIST OF INVENTIONS—continued.

Invention.	Name.	Application.		Gazette.	
		No.	Date.	No.	Date.
Wire-strainer .. .. .	W. F. Smith .. .. .	15954	5 Feb. ..	13	19 Feb.*
Wire-strainer .. .. .	R. Williams .. .. .	16091	12 March ..	25	2 April.*
Withdrawing material from sluice-box ..	J. Thomson .. .. .	15849	5 Jan. ..	6	23 Jan.*
Wood-block pavement, Mastic jointing material for	C. M. Newson and M. Coulson ..	16039	26 Feb. ..	21	19 March.*
Wood-paving Mock, Applying boiling tar to	C. M. Newson and M. Coulson ..	15983	11 Feb. ..	21	19 March.*
Wooden block, Coating with tar, &c.	T. Willmot and M. T. Morgan ..	16043	3 March ..	21	19 March.*
Woodwork, Decorating	Artistic Woodwork Proprietary (Limited)	15993	18 Feb. ..	18	5 March.*
Wool-press	D. Donald .. .. .	15912	28 Jan. ..	13	19 Feb.
Wool-washing apparatus ..	A. Weaver .. .. .	15519	14 Oct., 1902	9	6 Feb.
Wort-separator and mash-tun..	M. Henius .. .. .	16089	12 March ..	25	2 April.
Yoke for pigs	A. Ward .. .. .	15901	21 Jan. ..	9	5 Feb.*

List of Applicants for Registration of Designs.

ALPHABETICAL list of applicants for registration of designs during quarter ending 31st March, 1903.

Name and Address.	No. of Class.	Design.		Gazette.	
		No.	Date.	No.	Date.
Dank, A. T., Melbourne, Victoria	1	174	23 Feb. ..	18	5 Mar.
Exshaw and co., J., Bordeaux, France	3	177	20 Mar. ..	29	16 April.
Middleton, A., Wellington, N.Z. ..	5	173	16 Feb. ..	13	19 Feb.
St. Hilda's Collegiate School, Dunedin, N.Z. ..	13	176	30 Mar. ..	25	2 April.
Volkman and Tucker, Wellington, N.Z.	2	175	20 Mar. ..	25	2 April.

List of Applicants for Registration of Trade Marks.

ALPHABETICAL list of applicants for registration of trade marks for quarter ending 31st March, 1903 (including also applications lodged prior to but gazetted during such quarter).

Name.	Address.	Class.	Application.		Gazette.	
			No.	Date.	No.	Date.
Abbey Effervescent Salt Company, Limited, The	London, Eng. ..	3	4056	9 Jan. ..	6	23 Jan.
Apollinaris Company, Limited, The ..	London, Eng. ..	44	4086	10 Feb. ..	13	19 Feb.
Barry, s	Palmerston North, N.Z.	8	4145	24 March ..	33	30 April.
Bartlett and sons, W.	Redditch, Eng.	49	4091	17 Feb. ..	13	19 Feb.
Batkin, E. C.	Wellington, N.Z.	45	4143	20 March ..	25	2 April.
Beattie, Lang, and co. ::	Wellington, N.Z.	42	4089	14 Feb. ..	13	19 Feb.
Beattie, Lang, and co.	Wellington, N.Z.	42	4092	18 Feb. ..	18	5 March.
Bilens, A. .. .. .	Christchurch, N.Z.	39	4061	20 Jan. ..	9	5 Feb.
Bone Phosphate and Chemical Company, Limited, The	Flint, Wales	2	4120	12 March ..	21	19 March.
Booth's Distillery, Limited	London, Eng.	43	4098	19 Feb. ..	18	5 March.
Breitenburger Portland Cement Fabrik	Hamburg, Germany ::	17	4099	19 Feb. ..	21	19 March.
British Oil and Cake Mills, Limited, The (Stewart Bros. and Spencer Branch), and another	Christchurch, N.Z.	42, 44	4082, 3	6 Feb. ..	13	19 Feb.
Castle Tea Company	Wellington, N.Z. ..	42	4058	15 Jan. ..	..	..
Catt, G. H. .. .. .	Hythe and London, Eng.	6	4053	8 Jan. ..	6	23 Jan.
Chappell, Allen, and Co., Limited	Bristol, Eng.	38	4140	19 March ..	25	2 April.
Clark and Co., I. P.	Leicester, Eng.	23	4002	20 Nov., 1902	21	19 March.
Clark and Co., I. P. ..	Leicester, Eng.	23	4122	12 March ..	21	19 March.
Clark and Sons, Limited, A.	Auckland, N.Z.	50, 38	4034, 5	19 Dec., 1902	18	5 March.
Clark and Sons, Limited, A.	Auckland, N.Z.	13, 25, 40, 38	4094, 5, 6, 7	19 Feb. ..	18	5 March.
Collier and Co. (Foreign), Limited, T.	Manchester, Eng.	( 38, 50, 40 38, 33, 96 23, 13, 14 32, 20, 21 25 )	4126- 4130, 4137- 4139	16 March ..	25	2 April.
Compressed (Whole-leaf) Tea Syndicate, Limited, The	London, Eng.	42	4112	9 March	21	19 March.
Continental Caoutchouc- und Gutta-percha Compagnie	Hanover, Germany	40	4105	23 Feb. ..	18	5 March.
Cox, Limited, J. and G.	Edinburgh, Scot., and London, Eng.	42	3866, 7	23 July, 1902	6	23 Jan.
Darnley, J. .. .. .	Dunedin, N.Z. ..	50	4076	2 Feb. ..	13	19 Feb.
De Roubaix. (See under Roubaix.)	..	..	..	..	..	..
Dutton, E. .. .. .	Auckland, N.Z. ..	47	4101	20 Feb. ..	18	5 March.
Dutton, R. A. .. ..	Auckland, N.Z. ..	3	4100	20 Feb. ..	18	5 March.

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

Name.	Address.	Class.	Application.		Gazette.	
			No.	Date.	No.	Date.
Eagle Cigarette Company. (See J. Jeffs.)						
Edwards, Dunlop, and Co., Limited	Sydney, N.S.W.	39	4069	28 Jan. ..	..	..
Espie, A	Dunedin, N.Z.	50	4186	18 March ..	..	..
Fabian, J.	Auckland, N.Z.	3	4074	28 Jan. ..	9	5 Feb.
Fennings, A	.. Cowes, Isle of Wight, Eng.	3	4063, 4	21 Jan. ..	13	19 Feb.
Frankau and Co., Limited, A.	London, Eng.	50	4124	14 March ..	21	19 March.
Gardner, A.	Pahiatua, N. Z.	42	4088	13 Feb. ..	18	5 March.
Gerstendorfer, A., and another	.. New York, U.S.A.	1	4071, 2	28 Jan. ..	9	5 Feb.
Gerstendorfer Bros. (See A. and M. Gerstendorfer, Nos. 4071, 2.)						
Gerstendorfer, M., and another	New York, U.S.A.	1	4071, 2	28 Jan. ..	9	5 Feb.
Gianacis, N	Cairo, Egypt	45	4118	11 March ..	29	16 April.
Gill, P.	Wellington, N.Z.	3	4044	30 Dec., 1902	13	19 Feb.
Glyn and co.	London, Eng.	38	4054	9 Jan. ..	18	5 March.
Griffiths Bros. and Co.	.. London, Eng.	1	4073	28 Jan. ..	9	5 Feb.
Grossmith, J., and Son, and J. Grosssmith, Son, and Co. (See J. L. Grossmith.)						
Grossmith, J. L.	.. London, Eng.	48	4114, 5, 6	11 March ..	21	19 March.
Gunson and Co., W.	.. Auckland, N.Z.	4	4079	5 Feb. ..	..	..
Guthridge, Limited, N.	.. Wellington, N.Z., &c.	20	4090	14 Feb. ..	..	..
Havana Commercial Company	Havana, Cuba	45	3284, 6	30 Jan., 1901	2	8 Jan.
Havana Commercial Company	Havana, Cuba	45	3289	30 Jan., 1901	18	5 March.
Havana Cigar manufacturing Company	Havana, Eng.	45	4055	9 Jan. ..	6	23 Jan.
Hoffnung and Co. (1902), Limited, S.	London, Eng., and Sydney, N.S.W.	8	4036	19 Dec., 1902	9	5 Feb.
Hoffnung and Co. (1902), Limited, G.	London, Eng., and Sydney, N.S.W.	8	4037	19 Dec., 1902	21	19 March.
Houten. (See Van Houten.)						
Hudson, R. W.	Liverpool, Eng.	47	3943	19 Sept., '02	2	8 Jan.
Hudson, R. W.	Liverpool, Eng.	47	3944	19 Sept., 1902	9	5 Feb.
Hutton, J. C. (See S. and W. Hutton, NO. 4081.)					2	8 Jan.
Hutton, S., and another	Melbourne, Vic.	42	4081	5 Feb. ..	13	19 Feb.
Hutton, W., and another	Melbourne, Vic.	42	4081	5 Feb. ..	13	19 Feb.
Imperial Leather-preserver Manufacturing Company	Philadelphia, U.S.A.	50	4102	21 Feb.	25	2 April.
Jameson, Anderson, and Co.	Christchurch, N.Z.	47	4108	9 March ..	21	19 March.
Jameson, Anderson, and Co.	Christchurch, N.Z.	47	4110	9 March ..	21	19 March.
Jeffs, J.	Dunedin, N.Z.	45	4142	19 March ..	..	..
Jenkins Bros.	New York, U.S.A.	6	4125	16 March ..	..	..
Kleemo and co., P.	Sydney, N. S. W.	10	4059	15 Jan. ..	6	23 Jan.
Lever Bros., Limited	Balmain, N. S. W.	47	4111	9 March ..	21	19 March.
Leverett, W. E.	.. Christchurch, N.Z.	50	4148	20 March ..	25	2 April.
Linotype Company, Limited, The	.. London, Eng.	5	3923	4 Sept., 1902	6	23 Jan.
Lyons and Co., Limited, J.	Kensington, Eng.	43	4070	28 Jan. ..	9	5 Feb.
Lysoform Gesellschaft mit Beschränkter Haftung	Berlin, Germany	2	4075	29 Jan. ..	33	30 April.
Marshall's Chemical Company, Limited	Dunedin, N.Z.	3	4062	21 Jan. ..	9	5 Feb.
Martell and Co.	Cognac, France	43	4068	28 Jan. ..	9	5 Feb.
Martell, J. and F. (See Martell and Co., NO. 4068.)						
Monnet et Oie, J. G. (Bee United Vineyard-proprietors' Company.)						
Nathan and Co., Limited, J.	.. Wellington, N.Z.	47	4067	24 Jan. ..	9	5 Feb.
Noll, J.	.. Dunedin, N.Z.	48	4147	26 March ..	25	2 April.
Nelson, Moate, and Co., Limited	.. Wellington, N.Z.	42	4057	13 Jan. ..	9	5 Feb.
Newberry and Co., J.	.. Wellington, N.Z.	42	4093	14 Feb. ..	18	5 March.
Newberry and Co., J.	.. Wellington, N.Z.	42	4106	25 Feb. ..	..	..
Nield, D.	.. Wellington, N.Z.	50	3980	24 Oct., 1902	13	19 Feb.
Patent Borax Company, Limited, The	Birmingham, Eng.	2, 3, 46, 47	3349-52	4 April, 1901	21	19 March.
Pidgeon and Co., Limited, E. W.	Christchurch, N.Z.	45	4123	14 March ..	21	19 March.
Pitman and Sons, Limited, Sir I.	Bath, Eng.	39	4103	23 Feb. ..	..	..
Pitman and Sons, Limited, Sir I.	Bath, Eng.	39	4104	23 Feb. ..	18	5 March.
Quane and Co., H., and another	Christchurch, N. Z.	42, 44	4082, 3	6 Feb. ..	13	19 Feb.
Roberts, J. D.	Auckland, N.Z.	42	4077, 8	3 Feb. ..	13	19 Feb.
Roberts, J. D.	.. Auckland, N.Z.	42	4084	6 Feb. ..	13	19 Feb.
Roubaix Oedenkoven and Co., De	.. Antwerp, Belgium	47	4121	12 March ..	21	19 March.

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

Name.	Address.	Class.	Application.		Gazette.	
			No.	Date.	No.	Date.
Sandow's Own Combined Developer	London, Eng.	49	4141	19 March ..	25	2 April.
Scott, H. W.	Palmerston North, N.Z.	2	4119	12 March ..	29	16 April.
Sims, F. R.	Christchurch, N.Z.	2	4144	24 March ..	25	2 April.
Smedley, Limited, J.	Matlock, Eng.	38	4065, 6	23 Jan. ..	9	5 Feb.
Société Des Propriétaires Vinicole De Cognac La (J. G. Monnet et Cie). (See United Vineyard-proprietors' Company.)						
Standard Varnish-works, The	New York, U.S.A.	1	4113	9 March ..	21	19 March.
Stewart Bros. and Spencer Branch	Christchurch, N.Z.	42, 4	4082, 3	6 Feb. ..	13	19 Feb.
Subritzky, J.	Awanui, N.Z.	3	4087	11 Feb. ..	..	..
Thomas, W.	Geraldine, N.Z.	8	4109	9 March ..	21	19 March.
Tucker, W. F.	Auckland, N.Z.	3	4060	19 Jan. ..	9	5 Feb.
United Vineyard-proprietors' Company, The	Cognac, France	43	4080	5 Feb. ..	21	19 March.
Van Houten and Zoon, C. J.	Weesp, Holland	42	4146	25 March ..	..	..
Waldberg and Co., Limited	Berlin, Germany	8	4040	24 Dec., 1902	21	19 March.
Watson and Co., Limited, J.	Dundee, Scotland	43	4052	7 Jan. ..	29	16 April.
Whybrow and Co.	Abbotsford, Vic.	38	4085	10 Feb. ..	..	..
Wiggins, Teape, and Co., Limited	London, Eng.	39	4117	11 March ..	21	19 March.
Wilson and Wood	Christchurch, N.Z.	42	4107	7 March ..	43	28 May.
Wilson and Wood	Christchurch, N.Z.	42	4149	27 March ..	25	2 April.

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