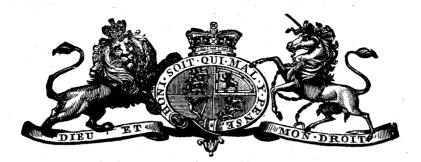
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SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, FEBRUARY 1, 1900.

Published by Authority.

WELLINGTON, THURSDAY, FEBRUARY 1, 1900.

Notice of Acceptance of Complete Specifications.

Patent Office, Wellington, 31st January, 1900.

Weilington, 31st January, 1900. COMPLETE specifications relating to the under-mentioned applications for Letters Patent have been accepted, and are open to public inspection at this office. Any person may, at any time within two months from the date of this *Gazette*, give me notice in writing of opposition to the grant of any such patent. Such notice must set forth the particular grounds of objection, and be in duplicate. A fee of 10s. is payable thereon.

No. 11185.—25th November, 1898. — WILLIAM HENRY HARVLEY and WILLIAM ADOLPH KONEMAN, both of 23, Moorfields, London, England, Civil and Mining Engineers. Improvements in furnaces for roasting ores and the like.*

Claims.—(1.) In an ore-furnace, the combination of a vertical combustion-chamber containing baffles forming a zigzag course through it for the products of combustion, a vertical exhaust-chamber, walls spaced apart to form said combustion- and exhaust-chambers and containing numerous ports throughout their height, and an ore-chamber between said walls provided with a feed-inlet at its upper end. (2.) In an ore-furnace, the combination of a vertical combustion-chamber containing series of arches extending from opposite walls to alternate with and lap each other and form a zigzag course rising through the chamber for the products of combustion, a vertical exhaust-chamber, walls spaced apart to form said combustion- and exhaust-chambers and cortaining numerous ports throughout their height, and an ore-chamber between said walls provided with a feed-inlet at its upper end. (3.) In an ore-furnace, the combination of a vertical combustion- and exhaust-chamber s and formed with half-brick sections provided on their meeting faces with V-shaped recesses forming parts p, and an ore-chamber between said walls provided on their meeting faces with V-shaped recesses forming baffles forming a zigzag course through it for the products of combustion- chamber containing baffles forming a zigzag course through it for the products of combustion, a vertical exhaust-chamber, walls spaced apart to form said combustion- and exhaust-chamber said combustion, a vertical combustion and exhaust-chamber said combustion, a vertical combustion and exhaust-chamber said combustion, a vertical combustion and exhaust-chamber said apart to form said combustion- and exhaust-chamber said combustion, a vertical combustion- and exhaust-chamber said containing numerous ports through it for the products of combustion, a vertical exhaust-chamber, walls spaced apart to form said combustion- and exhaust-chamber said containing numerous ports through it for the products of combustion, a vertical exhaust-chamber, walls spaced apart to form said combustion-

combination of a vertical combustion-chamber containing baffles forming a zigzag course through it for the products of combustion, a vertical exhaust-chamber, walls spaced apart to form said combustion- and exhaust-chambers and containing numerous ports throughout their height, an orechannel between said walls provided with a feed-inlet at its upper end, and a discharging-base in said ore-channel comprising a table and rotary cylindrical cut-outs at opposite sides of the table. (6.) In an ore-furnace, the combination of a combustion-chamber containing baffles forming a zigzag course through it for the products of combustion, an exhaust-chamber, walls spaced apart to form said combustionand exhaust-chamber said containing throughout numerous ports, an ore-channel between said walls, and a dischargingbase in said ore-channel comprising a table and rotary cutouts at opposite sides of the table, each formed of a shaft and cylindrical sections secured thereon, composed of heads and blades extending radially between them. (7.) In an orefurnace, the combination of a vertical combustion-chamber, an exhaust-flue into which said exhaust-chamber opens at its base, walls spaced apart to form said combustion- and exhaust-flue into which said exhaust-chamber opens at its base, walls spaced apart to form said combustion- and exhaust-flue into which said exhaust-chamber opens at its base, walls spaced apart to form said combustion- and exhaust-flue into which said exhaust-chamber opens at its base, walls spaced therefrom by spaced walls provided with a feed-inlet at its upper end. [Claims 8 and 9 struck out.] (10.) An ore-furnace comprising, in combination, a plurality of vertical exhaust-chamber for each combustionchamber, separated therefrom by spaced walls containing numerous ports throughout their height, and forming between them an ore-channel provided with a feed-inlet at its upper end, a discharging-apparatus in the bottom of each ore-channel, and an exhaust-flue at the bases of and communication t

(Specification, 10s. 6d.; drawings, £1 1s.)

No. 11443.—14th March, 1899.—ALFRED JOHN KNOCKS, of Otaki, New Zealand, Licensed Native Interpreter. A medicine for the cure of bots and worms in horses.*

A

Claim. — A medicine for curing horses afflicted with bots and worms, comprising a mixture of æthiops-mineral, levigated antimony, sulphur, prepared steel or iron, aniseed, and permanganate of potash, substantially as set forth. (Specification, 1s.)

[No. 9

No. 11568.—25th April, 1899.—WILHELM MORRIS, of 183, Hereford Street, Christchurch, New Zealand, Medical Practitioner. Improved device for and similar vehicles.* Extract from Specification.-Improved device for locking the wheels of bicycles

and similar vehicles.* Extract from Specification.—" According to this invention, a device for locking the wheel of a bicycle or similar vehicle consists of a screw bolt which passes through a threaded hole in the sprocket-wheel or some other revolving part of the driving-mechanism, and takes into a hole in some fixed part of the machine. When applied to the sprocket-wheel, one of the arms may be specially strengthened for the pur-pose, and a boss formed upon it, in which the screw-head may be sunk. The head by which the screw is turned may be of any one of a great variety of shapes, the key being made to correspond. Instead of the bolt being attached to a moving part, it may be attached to a fixed part and take into made to correspond. Instead of the bolt being attached to a moving part, it may be attached to a fixed part and take into a moving part of the machine. In a modification, the bolt is made to slide backwards or forwards, as the case may be, by a spring, and a catch is provided whereby the bolt is held out of its operative position until turned by a suitable key."

Claim .- The improved device for locking the wheel of a bioyele or similar vehicle constructed, arranged, and operat-ing substantially as described and illustrated. (Specification, 2s. 3d.; drawings, 8s.)

No. 11829.—26th July, 1899.—JAMES PALMER CAMPBELL, of Wellington, New Zealand, Registered Patent Agent (nominee of Harry Phillips Davis, of 327, Noville Street, Pittsburg, Pennsylvania. United States of America, Elec-trical Engineer, and Frank Conrad, of 709, Whitney Avenue, Wilkinsburg, Pennsylvania aforesaid, Electrical Engineer). Improvement in electrical-measuring instru-ments * ments.

Claims.—(1.) In an electrical-measuring instrument of the kind described, a combined bobbin and damper-plate, said damper-plate being located between the polar exten-sions of the magnet and the bobbin surrounding one of said extensions. (2.) The combination with a movable actuating extensions, (2.) The combination with a movable actuating coil of an electrical-measuring instrument, of a spiral spring tending to hold the coil in its initial position, the weight of said spring being supported by a stationary part of the in-strument, substantially as described. (3.) An electrical-measuring instrument constructed substantially as described with reference to the drawings. (Specification, 2s. 3d.; drawings, £1 1s.)

No. 11832.—27th July, 1899.—WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of Benjamin Garver Lamme, of 230, Strat-ford Avenue, Pittsburg, Pennsylvania, United States of America, Electrical Engineer). Improvements in dynamo-electric machines." electric machines.

Claims.-(1.) For a dynamo-electric machine, a rotary field-Claims.—(1.) For a dynamo-electric machine, a rotary field-magnet core built up of laminæ, and having pole-pieces pro-vided with side-grooves near their outer ends for the recep-tion of coil-retaining wedges, said wedges being pushed in from both ends of the coil-slot and clamped by bolts through transverse flanges of the wedges. (2.) The modification of the device for preventing radial movement of the wedges, in which pins are fitted in grooves at the sides of the coil-slots and engage in corresponding grooves in the wedges. substan-tially as described. (3.) Dynamo-electric machines con-structed substantially as described with reference to Figs. 1 to 3 of the drawings. (Specification, 4s.; drawings, £1 1s.)

No. 11886.—16th December, 1899.—JOHN CROW MCGEORGE, of Roslyn, Dunedin, Consulting Engineer. An improved rocking screen preferably for gold-saving dredges.

Claims.—(1.) In gold-saving dredges, the combination of screening-plates such as B, B¹ in a suitable frame such as A, on a rocking shaft such as C, for sifting the gold-bearing wash, substantially as described and explained, and as shown in the drawing. (2.) In dredges for gold-saving, the com-bination of screen-rlates such as the bars or perforated plate B and the plate B¹ in a suitable frame such as A, with rockers or a rocking shaft and bearings such as C, for sifting and grading the gold-bearing wash, substantially as described, and shown in the drawing. (3.) In a dredge for gold-saving, a reciprocating or rocking-screen such as A, B, B¹, on rockers or a rocking shaft such as C, C, reciprocated and worked by convenient means such as D, E, adjustable as to the amount of rocking motion, substantially as set forth. (Specification, 1s. 6d.; drawings, 3s.)

No. 11919.—24th August, 1899.—JAMES PALMEB CAMPBELL, of Wellington, New Zealand, Registered Patent Agent (nominee of Ralph Davenport Mershon, of 120, Broadway, New York, United States of America, Electrical Engineer). Improvements relating to the distribution of electrical power.*

Claims.-(1.) The method of indicating at any point the potential at any other point in an alternating-current circuit which consists in reproducing in miniature in a local cir-cuit the main line impressed and counter electro-motive forces, and the line-capacity, leakage, and distributed load, or such of the latter as it is desired to take into account, and then observing the resultant difference of potential in said local circuit at a point corresponding to the point in the main circuit. (2.) An electrical installation provided with a local circuit in which the main line impressed and counter electro-motive forces, and the line-capacity, leakage, and dis-tributed load, or such of the latter as it is desired to take into account, are reproduced in miniature for the purpose specified. (3.) The various arrangements for indicating at any point the potential at any other point in an alternating-current circuit, substantially as described with reference to the drawings. Claims .-- (1.) The method of indicating at any point the the drawings. (Specification, 10s. 3d.; drawings, 6s.)

No. 11941.—31st August, 1899.—WILLIAM EENEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of Harry Phillips Davis, of 327, Neville Street, Pittsburg, Pennsylvania, United States of America, Electrical Engineer, and Gilbert Wright, of 409, Ross Avenue, Wilkinsburg, Pennsylvania aforesaid, Electrical Engineer). Improvements in controllers for electric mo-tors tors

tors." *Claims.*—(1.) A controller for electric motors in which the controller-drum is connected by a spring to its operating-shaft, and so arranged that when the handle is operated the spring is wound up and the drum is held stationary until spring is wound up and the drum is held stationary until the operating-handle reaches a predetermined point, when it is automatically released and rotated by the wound spring. (2.) In a controller as claimed in claim 1, a device for clamping one end of the spring to the shaft when the latter is rotated in one direction, and the other end of the spring to the shaft when it is moved in the opposite direction, sub-stantially as described. (3.) Controllers for electric motors constructed and operating substantially as described with reference to Figs. 1 to 12 or to Figs. 13 and 14 of the draw-ings. ings

(Specification, 7s. 9d.; drawings, £1 16s.)

No. 11947.—2nd September, 1899.—JAMES PALMER CAMP-BELL, of Wellington, New Zealand, Solicitor (nominee of Harry Phillips Davis, of 327, Neville Street, Pittsburg, Pennsylvania, United States of America, Electrical Engi-neer). Improvements in fuse-blocks for electric circuits.*

-(1.) A fuse-block of the kind described, having Claims. Claims.—(1.) A fuse-block of the kind described, having the fixed portion of the block provided with an opening through which a projection of the removable portion extends, being clamped by suitable clamping-device, and with or without a blow-out orifice extending through said projection of the removable portion. (2.) A fuse-block constructed substantially as described with reference to the drawings. (Specification, 2s. 3d.; drawings, 5s. 6d.)

No. 11948.—2nd September, 1899.—JAMES PALMER CAMP-BELL, of Wellington, New Zealand, Solicitor (nominee of Gilbert Wright, of 409, Ross Avenue, Wilkinsburg, Penn-sylvania, United States of America, Electrical Engineer, and Christian Aalborg, of 212, Franklin Street, Wilkinsburg aforesaid, Electrical Engineer). Improvements in switches for electric circuits.*

Claims.--(1.) An electric switch or automatic circuit-breaker, having a movable member composed of a number of metal lamine, the operating-lever being connected with said movable member through a toggle mechanism, which is arranged to lock the switch in the closed position, which is arranged to lock the switch in the closed position, and with or without knife-edge bearings for the toggle levers, to enable the mechanism to work very quickly and easily, substantially as described. (2.) An automatic circuit-breaker having main and shunt contacts, the latter being so arranged that the movable contact first slides down and then tilts away from the fixed contact during the operation of opening the circuit, so that the final interruption occurs at the edge of the movable contact. (3.) For circuit-breakers, knife-edge bearings constructed substantially as described with reference to Figs. 10 to 12 of the drawings. (4.) Electric switches and circuit-breakers constructed ac-cording to any of the forms shown in the drawings, and operating as described. (Specification, 11s. 3d.; drawings, £2 2s.)

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No. 12010.—22nd September, 1899.—WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of Benjamin Garver_Lamme, of 230, Stratford Avenue, Pittsburg, Pennsylvania, United States of America, Electrical Engineer). Improvements in systems of electrical distribution.

Claims.—(1.) The method of regulating the electro-motive force supplied to translating devices in the secondary circuit of a transformer by means of a third coil on the transformer, which third coil is connected to one coil of a second trans-former, the other coil of which is in the circuit containing the translating devices. (2.) An electrical installation in which for the purpose of varying the electro-motive force in the secondary circuit of a transformer a third coil is provided on the transformer with means for varying its active length, said third coil being connected to one coil of a second trans-former, the other coil of which is in the circuit containing the translating devices. (3.) A system of electrical dis-tribution substantially as described with reference to the drawings. drawings.

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

No. 12020.—28th September, 1899 — WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of Benjamin Garver Lamme, of 230, Stratford Avenue, Pittsburg, Pennsylvania, United States of America, Electrical Engineer). Improvement in single-phase alternating-current generators.*

Extract from Specification. - "My invention relates to single-phase alternating current generators, and has for its object to improve the construction of the armature so that the coils thereof can be very easily inserted into their re-spective slots without bending or the exertion of injurious pressure thereon. For this purpose the slots in the arma-ture-core for the reception of the coils are not made radial, but the sides thereof in each group of coils are made parallel to each other, so that the distance between two slots in-tended to receive a coil is the same at the bottom of the slots as it is at the top of the slots—that is to say, on the outer periphery of the armature."

Claim.—A dynamo-electric machine having an armature provided with either a wire winding or a strap winding, and constructed as described, and shown in the drawings. (Specification, 2s. 3d.; drawings, 3s.)

No. 12029.-29th September, 1899.-JAMES PALMER CAMP-BELL, of Wellington, New Zealand, Registered Patent Agent (nominee of Benjamin Garver Lamme, of 230, Stratford Avenue, Pittsburg, Pennsylvania, United States of America, Electrical Engineer, and John Purington Mallett, of 6728, Simen Avenue, Pittsburg aforesaid, Electrical Engineer). Improvements in electrical machines.*

Claims.-(1.) For an electrical machine, a continuous multipolar winding, in which one or more middle conductors multipolar winding, in which one or more middle conductors of each phase and pole-group are connected at its respective ends to the nearest side conductor of the same phase, for the purpose specified. (2.) For an electrical machine, a multi-polar polyphase bar-winding, in which the middle or adjacent-to-the-middle bars for the several phases of each pole are alternately long and short, the remaining bars being of inter-mediate length. (3.) For an electrical machine, a distri-buted continuous winding, comprising bars of three different lengths and end-connectors, all of which are of substantially (4.) For electrical machines, armatures or primary members constructed substantially as described with reference to the drawings.

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

No. 12121.—27th October, 1899.—DANIEL MUNSON SEA-TON, of 24, Montgomery Street, San Francisco, United States of America, Lawyer. Improvements in looms.

My invention is an improvement on the loom disclosed by me in an application for Letters Patent of New Zealand, No. 10512, dated 14th April, 1898, and relates particularly to means for feeding at will threads of different colours to the weft-thread carrier, so as to make a fabric of any desired pattern or of any desired combination of coloured threads. In the loom referred to, the weft-threads are laid in the fabric hair-pin fashion, with the loops alternating at the opposite edges thereof, to form the subverthread, and lengths are measured and cut from the supply-thread, and are fed to the weft-thread carrier by a reciprocating feeder, which presents first one end of the loop-length to the weft-thread carrier, and then the other. My present invention

relates particularly to feeding mechanism whereby different-coloured loop-lengths may be supplied to the weft-thread carrier.

[Note. — The number and length of the claims in this case preclude them from being printed, and the foregoing general de-scription is inserted instead.]

(Specification, 17s. 6d.; drawings, £4 4s.)

No. 12175.-11th November, 1899.-Hugh Laing Main-Land, of Burke's, New Zealand, Mechanical Engineer. Improvements in traps for catching animals.

Claims.—(1.) In the springing platform of any spring-jaw trap, such as claimed by my Patent No. 7800, the improved method of hinging the two plates forming the spring plat-form by strips partly cut out of openings in one plate, such as C^3 , or C^7 , working in holes cut out of the other plate such as C^3 , instead of the hinge-pin there shown and claimed, substantially as set forth and for the purposes indicated. (2.) The method of forming one of the springs into a com-bined lifting-spring, tug-spring, and a swivel with the tethering-ohain, substantially as set forth and for the pur-poses specified. poses specified.

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

No. 12182.—15th November, 1899. — John Alexander McPhez, of Harbour Terrace, Dunedin, New Zealand, Clay-pipe Maker. An improved can-opener.

Claims.—(1.) A can opener consisting of a handle having a centre pin C and adjustable cutter D moving in slot H, K, and secured in position by plain or wing nut or other suit-able means. (2.) The combination with any form of can-opener of the centre pin C and movable cutter D, and secured as described to form an improved can opener.

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

No. 12239.—14th December, 1899.—JOHN COWAN and the STIRLING BOILER COMPANY, LIMITED, of 2, St. Andrew's Square, Edinburgh, Scotland, Manufacturers. Improve-ments in water-tube boilers.

Claims.—(1.) A water-tube boiler consisting of an upper feed-water drum such as A, and two steam-and-water drums such as B, B¹, connected together by tubes such as M, N, and N¹, and to a lower drum such as C, by banks of tubes such as a, b, and b^1 , with a furnace remote from the feed-water drum, and baffles to direct the passage of the products of combustion substantially as described with reference to Figs. 1 and 2. (2.) The improved water-tube boiler described with reference to Figs. 1 and 2 of the drawings. (3.) A water-tube boiler consisting of an upper feed-water drum such as Figs. 1 and 2. (2.) The improved water-tube boiler described with reference to Figs. 1 and 2 of the drawings. (3.) A water-tube boiler consisting of an upper feed-water drum such as A, and two or three steam-and-water drums such as B, B¹, B², connected together by tubes such as M, N, N¹, P, and P¹, and to two lower drums such as C, C¹, by banks of tubes such as a, b, ¹, and b², the said lower drums being con-nected to each other by tubes Q substantially as described with reference to Figs. 3, 4, 5, 6, 7, and 8. (4.) The improved water-tube boiler described with reference to Figs. 3 and 4 of the drawings. (5.) The improved water-tube boiler described with reference to Figs. 5 and 6 of the drawings. (6.) The improved water-tube boiler described with reference to Figs. 7 and 8 of the drawings. (7.) The combination with water-tube boilers claimed in claims 3, 4, 5, and 6 of an outside tube connecting the feed-water drum with the main water drum, the said tube being fitted with a suitable valve, sub-stantially as described. (8.) The combination with the furnace to the most remote bank of tubes, with means for closing the flue when desired, substantially as described. (9.) In the water-tube boilers as claimed above, the arrange-ment of the bank of tubes a acting as a feed-water heater, substantially as described with reference to the arking. ment of the bank of tubes a acting as a feed-water heater, substantially as described with reference to the drawings. (Specification, 5s. 6d.; drawings, $\pounds 1$ 11s.)

No. 12252.-21st December, 1899.-EDWARD WHITTEN RUDD, of 7, St. James Buildings, William Street, Melbourne, Victoria, Merchant (nominee of William Baines, of 40, Hol-born Viaduct, London, England, Financial Agent). Improve-ments in or relating to the transmission-gear and motor of self-propelled vehicles.

Claims. -- (1.) In transmission - gear for self-propelled vehicles, the combination with an engine placed approxi-mately in the longitudinal centre of the vehicle, a driven shaft or part at one end of the vehicle, and two idler pulleys at the other end of the vehicle, of a rope or equivalent power-transmitter connecting these parts, substantially as and for the purpose described. (2.) In transmission-gear for

self-propelled vehicles, the combination with an engine placed | approximately in the longitudinal centre of the vehicle, a driven shaft or part at one end of the vehicle, and two idler approximately in the longitudinal centre of the vehicle, a driven shaft or part at one end of the vehicle, and two idler pulleys running in opposite directions, and one or both of them adjustable at the other end of the vehicle, of a rope or equivalent power-transmitter connecting these parts, and having its separate "runs" passing round the respective idler pulleys, substantially as and for the purpose described. (3.) In transmission-gear for self-propelled vehicles, the com-bination with an idler pulley for belt-tightening purposes of a lever or other device operated from the driver's seat, whereby the power-transmitter can be tightened or slackened while the vehicle is running, and the rate of travel varied thereby, substantially as described. (4.) In transmission-gear for a self-propelled vehicle, the combination with a driv-ing pulley and a driven pulley of one or more wheels such as E⁸, E⁴, carried on a swinging arm such as E, and a device under the control of the vehicle-operator for varying the position of said arm, substantially as described. (5.) The transmission-gear for a self - propelled vehicle substan-tially as described, or as illustrated in the drawings. (6.) In an internal-combustion engine for self-propelled vehicle projecting a current of air upon the cylinder for the purpose described by means of the fly-wheel, neither cylinder nor fly-wheel being cased in. (7.) In an internal-combustion engine for self-propelled vehicle, cooling the available run fly-wheel being cased in. (7.) In an internal-combustion engine for self-propelled vehicle, cooling the cylinder nor flyprojecting a current of air upon the cylinder for the purpose described by means of the fly-wheel, neither cylinder nor fly-wheel being cased in. (7.) In an internal-combustion engine for self-propelled vehicles, cooling the cylinder and cooling water-receptacle by means of a current of air projected upon them by the fly-wheel. (8.) In an internal-combustion engine for self-propelled vehicles, cooling a water-jackted cylinder and cooling water-receptacle by means of a current of air projected upon them by the fly-wheel. (9.) In an internal-combustion engine for self-propelled vehicles, cooling the exhaust-valve chamber by projecting a current of air upon it, substantially as described. (10.) In an internal-combustion engine for self-propelled vehicles, the combination with one or more cylinders with or without radiating ribs of a fly-wheel so arranged as to project a cur-rent of air upon them for cooling purposes, substantially as described, none of these parts being cased in. (11.) In an internal-combustion engine for self-propelled vehicles, the combination with a cylinder with or without radiating ribs of a fly-wheel, partly or entirely overlapping the cylinder, and having vanes upon its arms for projecting a current of air upon the cylinder, substantially as and for the purpose described. (12.) In a self-propelled or motor vehicle, an internal-combustion engine having its connecting-rod re-ciprocating in a horizontal plane, and a fly-wheel of a rela-tively large diameter rotating in a plane parallel to that of the connecting-rod and extending for nearly the full width of the vehicle, so as to increase the stability of the vehicle by its gyroscopic action. (13.) In a self-propelled or motor vehicle, an internal-combustion engine having its connectingor the vehicle, so as to increase the stability of the vehicle by its gyroscopic action. (13.) In a self-propelled or motor vehicle, an internal-combustion engine having its connecting-rod reciprocating in a horizontal plane, and a fly-wheel of a relatively large diameter rotating in a plane parallel to that of the connecting-rod, and extending for nearly the full width of the vehicle, so as to increase the stability of the vehicle by its gyrescopic action and perioding a purper of width of the vehicle, so as to increase the stability of the vehicle by its gyroscopic action, and projecting a current of air upon the cylinder or cooling-water vessel, or both, for cooling purposes, substantially as described, or illustrated in the drawings. (14.) In an internal-combustion engine for self-propelled vehicles, a vaporizer and heater for the ex-plosive mixture, comprising a tubular member such as O, through which the mixture passes within a casing such as N, through which the mixture passes within a casing such as N, through which the mixture for combustion pass, substan-tially as described, and illustrated in Fig. 1 or Fig. 4 of the drawings. (15.) In an internal-combustion engine for self-propelled vehicles, a vaporizer and heater for the explosive mixture, comprising a chamber such as F within a casing such as N, constructed and arranged substantially as de-soribed, and illustrated in Figs. 5 and 6 of the drawings. (Specification, 9s. 6d.; drawings, £1 11s.)

No. 12257.—21st December, 1899. — WILLIAM ERNEST HUGHES, of Queen's Chambers, Wellington, New Zealand, Patent Agent (nominee of the Plano Manufacturing Company, a corporation organized under the laws of the State of Illinois, and having its principal office at Chicago, Illinois, United States of America, the assignces of James Macphail, of 447, Gregory Street, Blue Island, Illinois aforesaid, Master Wachenie)

of 447, Gregory Street, Blue Island, Illinois aforesaid, Master Mechanic). Improvements in grinding-machines for harvessing-knives, also applicable for other like purpeses. *Claims.*—(1.) A grinding-machine comprising a grindingwheel, a pivoted frame carrying the wheel at one end, and having an extended portion at the other end beyond the pivotal point, an eccentric co-operating with such extended portion to vibrate such frame, a frame carrying such eccentric and adjustable in position to vary the position of arc of vibration. (2.) A grinding-device comprising a vibrating grinding-wheel frame, a grinding-wheel therein, mechanism for vibrating the frame, a driving wheel operating said mechanism and simultaneously rotating the grinding-wheel, and means for throwing said mechanism out

of operation and simultaneously locking said mechanism. (3.) A grinding-device comprising a base portion or support having a journal, a main shaft in such journal, a rotatable having a journal, a main shaft in such journal, a rotatable grinding-wheel, a frame pivoted on said shaft, carrying at one end the grinding-wheel and having an extension at the other end beyond its pivotal point, an eccen-tric contacting such extension to vibrate the frame and the grinding-wheel, a gear actuating the eccen-trio, a main driving-gear wheel rotating the grinding-wheel and having a pinion meshing with the eccentric actuating gear. (4.) A grinding-machine comprising a base portion or support, a main shaft mounted therein, a rotatable grinding - wheel, a frame pivoted on said shaft, carrying at one end the grinding-wheel and having a bifurcated arm extending beyond its pivotal point, an ec-centric located between the bifurcations of said arm and adapted to vibrate the frame, a gear-wheel actuating said adapted to vibrate the frame, a gear-wheel actuating said eccentric, and a main driving-gear wheel arranged on the main shaft, and a main diving-gear wheel alranged on the having a pinion to actuate the eccentric actuating gear-wheel. (5.) A grinding-machine comprising a standard or having a pinion to actuate the eccentric actuating gear-wheel. (5.) A grinding-machine comprising a standard or support, a main shaft mounted therein, a rotatable grinding-wheel, a frame pivoted on said shaft, carrying at one end the grinding-wheel and having a bifurcated arm extending be-yond its pivotal point, an eccentric located between the bifurcations of said arm and adapted to vibrate the frame, a gear-wheel actuating said eccentric, means for remov-ing it from mesh from its driving-pinion to prevent vibration of the frame, and a main driving-gear wheel adapted to rotate the grinding wheel and having a pinion to actuate the eccentric actuating gear-wheel, (6.) A grinding-machine comprising a standard or support, a main shaft mounted in said standard, a grinding-wheel, a frame pivoted on the shaft and carrying the grinding-wheel at one end, and having an extension on its opposite end beyond its pivotal point, a bell-crank-shaped lever pivoted on the main shaft, one arm being substantially horizontal and projecting parallel to said extension of the frame, such arm having a longitudinal slot, a shaft adjustable in said slot, an eccentric mounted on such shaft, and a driving-wheel for simultaneously rotating the grinding-wheel and the eccentric to vibrate the frame. (7.) A grinding-machine comprising a standard or support a main shaft mounted therein a grind to vibrate the frame. (7.) A grinding-machine comprising a standard or support, a main shaft mounted therein, a grinding-wheel, a frame pivoted on the shaft and carrying the grinding-wheel at one end, and having an extension on its opposite end beyond its pivotal point, a bell-crank-shaped frame pivoted on said shaft and adjustable with respect to the standard, an eccentric journalled in one of the arms of the bell-crank-shaped frame and adapted to contact said extension of the grinding-wheel frame to vibrate the same, and means for rotating the grinding-wheel and for rotating the eccentric to vibrate the grinding-wheel frame. (8.) A grinding machine comprising a standard or support, a main grinding machine comprising a standard or support, a main shaft mounted therein, a rotatable grinding-wheel, a frame pivoted on the shaft and carrying the grinding-wheel at one end and having an extension on its opposite end beyond its pivotal point, a bell-crank-shaped frame pivoted on said shaft and having one of the arms thereof projecting down-ward adjacent to said standard and provided with a slot, a clamping-bolt passing through the standard and received by said slot to hold said bell-crank-shaped frame in adjusted positions, the other arm thereof extending rearwardly, substantially horizontal, and provided with a slot, a shaft adjustable in said last-named slot, a gear-wheel provided with an eccentric and mounted on said last-named shaft, such eccentric contacting said extension of the grindingsuch eccentric contacting said extension of the grinding-wheel frame, a main driving gear rotating the grinding-wheel, and a pinion intermediate such driving-gear wheel wheel, and a pinion intermediate such driving-gear wheel and the eccentric provided gear-wheel. (9.) A grinding-machine comprising a standard or support, a main shaft mounted therein, a rotatable grinding-wheel, a frame pivoted on the shaft, and carrying the grinding-wheel at one end, and having a bifurcated extension on its opposite end beyond its pivotal point, an arm mounted on said shaft, and extend-ing rearwardly, a gear-wheel, an eccentric thereon embraced by said bifurcated extension to vibrate the grinding-wheel frame, a shaft for said gear-wheel and adjustably mounted in said arm, a driving-wheel rotating the grind-ing wheel and having a pinion meshing with said gearmounted in said arm, a driving wheel rotating the grind-ing wheel and having a pinion meshing with said gear-wheel, and a projection on said arm to engage in and lock said gear-wheel when adjusted out of mesh. (10.) A grinding-machine comprising a base, a vibrating grinding-wheel frame mounted thereon, and having a bifurcated extension, an eccentric embraced by such extension and having a shaft, a bracket arranged on the base and having a shaft, a bracket arranged on the base and having having a shaft, a bracket arranged on the base and having a slot in which the shaft is adjustably secured, driving-mechanism for operating said eccentric, and a lug or tooth on said bracket adapted to engage the eccentric when adjusted out of operation with the driving-mechanism, whereby the eccentric is held in different positions to adjust and hold the frame from vibrating and at different altitudes. (11.) A grinding-machine comprising a standard or support, a main shaft mounted therein, a rotatable grinding-wheel, a frame pivoted on the shaft and carrying the grinding-wheel

at one end and having a bifurcated extension, an arm extend-ing rearwardly from said shaft and having its extreme end turned at an angle and there provided with a rib or lug, a shaft or spindle adjustably mounted on said arm, a gear-wheel mounted on said spindle, an eccentric thereon em-braced by said bifurcated extension, and a driving-wheel rotating the grinding-wheel and having a pinion meshing with said gear-wheel to rotate the same and cause the eccentric to rock the grinding-wheel frame. (12.) A grinding-machine comprising a base, a grinding-wheel rotatably sup-ported thereon, means for rotating such wheel, and means for presenting the work to the wheel, which means consist of a frame pivoted on said base and having fingers or rests, and a combined handle and clamp, substantially as shown, screwing into the frame to clamp the work between said fingers. (13.) A grinding-machine comprising a vibrating grinding-wheel frame, a rotatable grinding-wheel therein, an eccentric for vibrating said frame, mechanism for rotating turned at an angle and there provided with a rib or lug, a the eccentric for vibrating said frame, mechanism for rotating the eccentric, and means substantially as shown whereby the eccentric may be shifted out of operation and locked in the eccentric may be shifted out of operation and locked in different positions to simultaneously hold the frame sta-tionary and at different altitudes. (14.) In a grinding-machine, the combination of a supporting frame, a driver, a journal pivoted on the frame, a fly-wheel mounted therein and driven by such driver, such journal and fly-wheel being adjustable with respect to the driver and in the arc of a circle with the frame as a centre. (15.) A sickle-grinder constructed and operating substantially as shown and de-scribed scribed.

(Specification, 12s. 6d.; drawings, £2 2s.)

No. 12289.—10th January, 1900.—HEMMING CHRISTIAN JENSEN, of Stanway, Manawatu, New Zealand, Blacksmith. An improvement in stump-jacks.

Description.—" The object of this invention is to provide an improvement in my stump-jack for which I obtained Letters Patent No. 8177, dated the 6th day of January, 1896. In my stump-jack, as then invented, the lever with the ratchet back was raised in the iron frame by means of a lower pawl and a handle and an upper pawl on an axle or fulcrum, the lower pawl raising the lever and the upper pawl holding the lever in position while the handle and lower pawl were getting into position for another grip. The improvement I am about to describe is in the arrangement of the handle and pawls, and the result is that in both raising and lowering the handle the ratchet lever is raised. As shown in the drawing herewith, the handle a has the lower movable short pawl b, and the upper movable and longer pawl c, both pawls working on the handle by pins d, the handle operating on the axle or fulcrum e. The pawl b will en-gage the ratchet on the handle being depressed, and the pawl cwhen the handle is raised, the stump-jack thus performing its function more quickly than hitherto." Description .--- "The object of this invention is to provide an

Claim. — In the stump-jack mentioned, the improved handle and pawls described. (Specification, 1s.; drawings, 3s.)

No. 12298.—8th January, 1900.—PARNELL RABBIDGE, of Sydney, New South Wales, Electrician. An improved arrangement of switching-appliances for use with switch telephones.

telephones. Claims.-(1.) In telephone-circuits, a switch having three positions, the first position being normal, and such that the telephonic instrument and battery are connected between its home-line and earth; the third position is such that the in-strument and battery are connected between the line-selector board and earth or return; the intermediate position being such that the instrument and battery are connected between the home line of the line gelector board the acet being such that the instrument and battery are connected between the home-line and the line-selector board, the earth or return being cut out of circuit, and such switch being so constructed that if placed in the second or third positions it shall be restored to its normal position by hanging the tele-phonic instrument upon it as specified. (2.) In telephone-circuits, a switch having two positions, such that when placed in its first or normal position the telephonic instru-ment and battery shall be connected between the home-line and earth, and when placed in its second position the inand earth, and when placed in its second position the in-strument and battery shall be connected between the linestrument and battery shall be connected between the line-selector board and earth or return, and such switch being so constructed that if placed in the second position it shall be restored to its normal position by hanging the telephonic in-strument upon it as specified. (3.) In telephone-circuits, placing a switch, such as that referred to in claims 1 and 2, between the telephonic instrument and battery and the line-selector board, as and for the purposes set forth. (4.) The special form of switch, whether for two or three positions, as shown in Figs. 2 and 3 of the drawings and for the pur-poses specified. poses specified.

(Specification, 9s. 3d.; drawings, 10s. 6d.)

No. 12310. — 13th January, 1900. — Hugh LAING MAIN-LAND, of Burke's, New Zealand, Mechanical Engineer. Improved locking hairpin.

(1.) In hairpins, the combination of any of the forms now in use, and known as plain or fancy hairpins, with a bent and twisted leg near one point, the loop touching the a bent and twisted leg near one point, the loop touching the other leg, and the twist so formed (such as in Figs. 1, 2, 3, and 4) that a slight turn given to the points will lock the pin (such as in Figs. 2 and 4); or it can be unlocked by a re-verse turn, or used without locking (such as in Figs. 1 and 3), substantially as set forth, and as illustrated in the drawing. (2.) In hairpins, the combination of any of the forms now in use of plain or suitable fancy hairpins with bent and twisted legs so formed (as in Figs. 5, 6, 7, and 8) that a slight turn given to the points will lock the pin (such as in Figs. 6 and 8); or it can be unlocked by a reverse turn, or used without locking (such as in Figs. 5 and 7), substantially as set forth, and as illustrated in the drawing. (Specification, 1s. 9d.; drawings, 8s.)

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

No. 12313.—18th January, 1900.—GEORGE WEBSTER, of Wigram Street, Parramatta, New South Wales, Engineer. Improvements in machines for extracting gold from finely divided metalliferous materials.

divided metalliferous materials. Claims.—(1.) In machines for extracting gold from finely divided metalliferous materials, the combination with a feeding-hopper and a catching- or receiving depression of a comparatively long and shallow closely covered-in passage or chamber, having a fabric or similar lining on its bottom, substantially as described and explained. (2.) In machines for extracting gold from finely divided metalliferous mate-rials, the combination with a comparatively long and shallow passage or chamber, having a fabric-lined bottom, of a top or cover whose under-surface is silvered or amalgamated, sub-stantially as described and explained. (3.) In machines for extracting gold from finely divided metalliferous materials, the combination with a comparatively long and shallow passage or chamber, dwater-pipes partially sunk into the bottom of said passage or chamber, substantially as de-scribed and explained, and as illustrated in the drawings. (4.) The combination and arrangement all together of the mechanical parts set forth and explained, forming an im-proved machine for extracting gold from finely divided metalliferous material, substantially as described and ex-plained, and as illustrated in the drawings. (Sneiffaction 5a 6d detawings 106 6d) plained, and as illustrated in the drawings. (Specification, 5s. 6d.; drawings, 10s. 6d.)

No. 12314.—18th January, 1900.—LARS CHRISTIAN NIEL-SEN, Constructor, and PETER VALDEMAR FREDERIK PETER-SEN, Computator, both of Copenhagen, Denmark. Foam-removing apparatus for heating and pasteurizing of fluids.

Claims.—In heating or pasteurizing apparatus consisting of a reservoir supplied with a stirrer, and surrounded by a Claums.—In heating or pasteurizing apparatus consisting of a reservoir supplied with a stirrer, and surrounded by a steam-mantle into which steam is introduced so as to heat the reservoir, through which the fluid to be heated con-tinually flows, while the water accumulated through con-densation of the steam, is continually led away:—(1.) The arrangement of drip-rings on the outside of the reservoir— *i.e.*, in the steam-chamber—for the purpose of leading the condense-water from narrow zones of the heating-surface. (2) The arrangement of plates on the silrer across its axis, these plates extending almost to the side of the reservoir and serving to separate the fluid in layers, so that mixing of the fluid-particles in a direction parallel with the stirrer axis is virtually hindered. (3.) The arrangement of holes in the plates stated in claim 2, these holes serving as outlets for the air disengaged during the foam-removing process. (4.) The arrangement of a vent-cock on the waste-pipe or in the bottom of the steam-chamber, through which the air carried along by the steam and disengaged by the condensation of the steam, is forced. (Specification, 5s. 3d.; drawings, 3s.)

No. 12317.—18th January, 1900.—HENRY JAMES KIMMAN, and EDWARD NASH HURLEY, both of Chicago, Illinois, United States of America, Manufacturers. Improvements in direct-acting engines, the invention being particularly adapted to pneumatic hammers.

This invention relates to a new and useful improvement in direct-acting engines, commonly known as pneumatic hammers. The engines of the class to which the construc-tion illustrated in the drawings relates are designed to be operated by compressed air supplied thereto through a flexible tube or hose, and engine being held to and guided in its work by an operator. Means are provided within con-venient reach of the operator for regulating the admission of compressed air to the engine, to the end that the same may

be controlled so that its piston will deliver light or heavy be controlled so that its piston will deliver light of heavy blows at will, or that air may be shut off when desired. The type of engine shown in the drawings accompanying the specification is that wherein a controlling-valve is em-ployed for admitting and exhausting air to and from the chambers at each end of the piston, causing said piston to reciprocate. A tool in the form of a chisel, caulking-im-plement, or the like bas its shank introduced in the front end of the cylinder or nose of the tool, and receives impacting blows from the forward end of the piston. The object of this present invention is to simplify the construction of engines of the character above described, and at the same time render them economical and efficient in the use of air The features of the invention in the top the engine. The features of the invention in the tool illustrated in the drawings which are deemed new are, briefly, first, the con-struction and arrangement of an adjustable throttle-valve for controlling the admission of air to the engine; second, for controlling the admission of air to the engine; second, the means employed for locking the rotary parts of the engine against displacement by unscrewing; third, the novel construction, arrangement, and operation of the con-trolling-valve; fourth, the novel port-arrangements in the cylinder co-operating with a piston operating in a uniform bore throughout the length of said cylinder; and, finally, the invertion consists in the construction, arrangement, and combination of the several parts all as described, and pointed out in the claims. pointed out in the claims.

[Note.-The number and length of the claims in this case preclude them from being printed, and the foregoing general description is inserted instead.]

(Specification, £1; drawings, £1 1s.)

No. 12321.—16th January, 1900.—HENRY PETTITT, of Kai-korai, Dunedin, New Zealand, Cabinetmaker. Packagefilling machine.

Claims.—(1.) In a machine for filling a number of pack-ages, the combination of a hopper capable of being wheeled or slid back or forward such as B¹, B, carrying a self-act-ing cut-off arrangement and a similar hand arrangement for measuring off required quantities into the spouts of the hopper such as B², B⁸, B⁸, with a ramming-arrange-ment such as D, and an ejecting-arrangement such as E, E¹, all substantially as described, and as shown on the draw-ing. (2.) In combination, a hopper such as B and B¹, the contents of which can be stirred such as in Fig. 5, capable of measuring out proper quantities of material as wanted by measuring out proper quantities of material as wanted by such measures as B^s , B^η , B^δ , and B^2 , into packages such as C, c^{2} , C^{1} , of ramming the contents by folding and movable set of rammers such as D, and of simultaneously ejecting the whole set of packages by another set of rammers such as E, E', the whole substantially formed as set forth, and as shown on the drawing.

(Specification, 4s.; drawings, 5s. 6d.)

No. 12324.—18th January, 1900.—HENRY BRABY, of Ayr, Queensland, Consulting Engineer. Improvements in steamgenerators.

generators. Claims.—(1.) In a steam-generator, a plate or block of copper, gun-metal, or other good heat-conducting material, having ways therein for the circulation of water and steam, and capable of being subjected to heat from a furnace or other source of heat, substantially as desoribed. (2.) In a steam-generator, a plate or block of copper, gun-metal, or other good heat-conducting material, having water-ways therein, and provided with caps for returning the water-ways, and capable of being subjected to heat from a furnace or other source, substantially as described. (3.) In a steam-generator, a plate or block of copper, gun-metal, or other good heat-conducting material, having ways therein for the circulation of the water and steam, and holes therethrough for passage of the furnace-heat, substantially as described. (4.) In a steam-generator, the combination with one or more plates of copper, gun-metal, or other good heat-conducting material, having ways therein for the circulation of watar and steam, of a feed-pump, injector, or other means whereby the foroed circulation of water is maintained, substantially as described and explained. (5.) In a steam-generator, the combination of a series of plates or blocks of good heat-conducting material, having ways therein for the circulation of the water and steam, one or more of the said plates being perforated or not, an equaliser or dome such as G, inlet-valve such as E, and outlet-valve such as F, substantially as de-scribed and explained, and as illustrated in the drawings. such as E, and outlet valve such as F, substantially as de-scribed and explained, and as illustrated in the drawings. scribed and explained, and as illustrated in the drawings. (6.) The improved generator consisting of the combination and arrangement of the parts substantially as described and explained, and as illustrated in Figs. 1 to 7 of the drawings. (7.) The improved generator consisting of the combination and arrangement of the parts substantially as described and explained, and as illustrated in Figs. 8 and 9 of the drawings. (Specification, 6s.; drawings, £1 1s.)

No. 12325.-20th January, 1900.-CHARLES, HENRY WATER-MAN, of Pompton Plains, New Jersey, United States of America, Manager. Process of enamelling.

Claim.—The process set forth of flashing enamel on to surfaces of a refractory material, which consists in applying the enamelling material to the desired surface and subject-ing such surface to the action of uniform electric heat de-livered at once on and over the entire coated surface in a plane parallel thereto, whereby all the enamelling material is instantaneously and simultaneously fused over the whole surface to which it is applied, while the body of the article is left relatively cool. left relatively cool.

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

No. 12326.—20th January, 1900.—JOHN VAUGHAN-SHEBRIN, of 28, Victoria Street. Westminster, Middlesex, England, Electrical Engineer. Improvements in the manufacture of varnishes, drying-oils, enamel paints, and wool-washes, ap-plicable also as insecticides, and for other purposes.

Claims.—(1.) The process for the manufacture of an cleaginous product consisting in heating linseed-oil to about 600° F. (315° C.), sprinkling gradually thereon kauri-gum dust or the like while agitating, adding gradually a suitable drying agent, mixing gradually the aforesaid mixture with rosin while agi 'ating, said rosin having previously been heated to about 40. F. (203° C.), then cooling down the mixture to about 90° to 100° F. (32° to 38° C.), and finally adding petroleum for thinning it down, then leaving the mixture to settle, and then drawing off the clear product, substantially as and in the proportions stated. (2.) The process for the manufacture of a varnish consisting in heating linseed-oil to about 600° F. (315° C.), sprinkling gradually thereon kauri-gum dust or the like while agitating, adding gradually acetate of manganese, mixing gradually the aforesaid mixture with rosin while agitating, said rosin having previously been heated to about 400° F. (203° C.), then cooling down the mixture to 90° or 100° F. (32° to 38° C.), and finally thereon kauri-gum dust or the like while agitating, adding gradually acetate of manganese, mixing gradually the aforesaid mixture with rosin while agitating said rosin having previously been heated to about 400° F. (32° to 38° C.), and finally thinning it down the mixture to settle, and then drawing off the clear liquid, substantially as and in the proportions stated. (3.) The process for the manufacture of a while acid accurate the manufacture of a productive for heating the mixture to protect on the base of the manufacture of the process for the manufacture of the operation of the process for the manufacture to accurate the product of the process for the manufacture of the properties stated. (3.) The process for the manufacture of a producture of the base of the process for the manufacture of a while acting the process for the manufacture of a when the properties the form heating in base of the process for the manufacture of a when the properties the form ba Claims.-(1.) The process for the manufacture of an and then drawing off the clear liquid, substantially as and in the proportions stated. (3.) The process for the manufac-ture of a substitute for boiled oil consisting in heating linseed-oil to about 600° F. (315° C.), sprinkling gradually thereon kauri-gum dust or the like, adding gradually acetate or borate of mauganese, mixing gradually the aforesaid mix-ture with rosin, said rosin having previously been heated to about 400° F. (203° C.), then c oling down to 90° to 100° F. (32° to 38° C.), and finally thinning it down with refined petroleum, then leaving the unixture to settle, and then drawing off the clear product, substantially as and in the proportions stated. (4.) The modified process for the manu-facture of a varnish according to which in the secondly claimed process gum dammer, copal, or the like is substituted for the kauri-gum, and the drying agent used is sulphate or claimed process gum dammer, copal, or the like is substituted for the kauri-gum, and the drying agent used is sulphate or borate of manganese or boracic acid. (5.) The modified process of manufacture of an oil according to which in the thirdly claimed process gum dammer is substituted for the kauri-gum, and the drying agent used is sulphate or borate of manganese or boracic acid. (6.) The manufacture by a cold process of an oleaginous compound soluble in water by mixing the varnish or the oil made as secondly and thirdly claimed with a caustic alkali solution, adding a little petro-leum while agitating, and thinning it down with petroleum, substantially as set forth. (7.) As a new or improved article of manufacture, the varnish made as secondly claimed. (8.) As a new or improved article of manufacture, the substitute for boiled oil made as thirdly claimed. (9.) As a new or improved article of manufacture, the varnish made a new or improved article of manufacture, the varnish made as fourthly claimed. (10.) As a new or improved article of manufacture, the oil made as fifthly claimed. (11.) As a new or improved article of manufacture, the cleaginous com-pound soluble in water made as sixthly claimed. (12.) As a new report of article of manufacture, the cleaginous com-pound soluble in water made as sixthly claimed. (12.) As a new or improved article of manufacture the new or improved article of manufacture, the enamel or paint made with the varnish or boiled oil made as described. (13.) As a new or improved article of manufacture, the wool-wash made as described. (Specification, 4s. 3d.)

No. 12327.—20th January, 1900.—S. H. JOHNSON AND COMPANY, LIMITED, the Engineering Works, Stratford, Essex, England (assignee of Samuel Henry Johnson, the Engineering Works, Stratford aforesaid, Metallurgical and Chemical Engineer, and Henry Livingstone Sulman, 60, Gracechurch Street, London, England, Metallurgical Chemist and Assayer). Improvements in or relating to the extraction of metals from ores or slimes, and apparatus therefor. therefor.

-(1.) A process for the treatment of ores or slimes Claims.in which a solvent solution is used for displacing the residual water in pressed slime cakes, for the purpose described. (2.) A process for the treatment of ores or slimes in which a portion of the water is first removed by pressure, and the remainder displaced by an equal volume of a solvent solution. (3.) A process for the treatment or ores or slimes containing (0.) A process for the treatment or ores or slimes containing metals in which the residual water in pressed cakes is dis-placed by a normal solvent solution in a filter-press, the material being then further mixed with an additional quantity of the solvent solution and again treated in a quantity of the solvent solution and again treated in a filter-press, wherein the metal-bearing solvent solution is re-moved and water substituted therefor, substantially as described. (4.) A process for the treatment of ores or slimes containing metals consisting in displacing the residual water in pressed cakes by a normal solvent solution in a filter-press, treating the cakes with additional normal solvent in a mixing-apparatus with or without aeration, expressing the metal-bearing solution in a filter-press, displacing the remaining portion of such solution with water, and returning the solution after the metal has been extracted from it to the main body of solvent solution, all the operations being performed so that an approximately constant volume of the normal solvent solution is maintained, substantially as (5.) In the treatment of ores or slimes containdescribed. (5.) In the treatment of ores or slimes contain-ing metals, mixing or mixing-and-aerating apparatus com-prising a centrifugal vane and a non-rotatable trunk-pipe capable of vertical adjustment with or without a cascade aerating-device, substantially as described. (6.) The com-plete apparatus for the treatment of ores or slimes contain-ing metals, substantially as described, or illustrated in the drawing. described. drawings

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

No. 12333.-23rd January, 1900.-Edwin Orlando Black-WELL, of Wynyard, Tasmania, Miller. An improved curative and fertilising compound, especially for trees affected with mussel blight.

Claim.—A compound for the purpose indicated, to be dug into the ground, consisting of or containing sulphate of copper, common salt, and lime, in about the proportions specified, substantially as and for the purposes set forth. (Specification, 2s.)

No. 12335. — 23rd January, 1900. — WILLIAM STEPHEN CORBY and CHARLES ISRAEL CORBY, of 2305, Brightwood Avenue, Washington, United States of America, Bakers, and THEODORE JACOB MAYER, of 214, B Street South-east, Washington aforesaid, Merchant. Apparatus for and process of making dough for bread.

Claims.-(1) In the art of making dough for fermented bread, the described process, which consists in intermingly the casing and to remove therefrom the dough bread the constituents of the dough the consist in intermingly the machine, and having also bars extending or separating from the dough mass, and combining such portions with the main mass, and combining such portions with mass of great tenaoity, at working dough thaving a casing, and a baeter reaving subtantially as set forth. (12) In the process after the ingredients are they countershaft, diace on the said that, substantially as set forth. (13) In a machine dongh mass, whereby there is effected a process, which consists in completing the combined consists in completing the combined constantial was set forth. (13) In the art of making dough for fermented bread, the described process, which consists in the gluten, and dissemination of the ferment, which dough and simultaneously disseminating the ferment, which do the gluten, and disseminating the ferment, which consists in the dissemination of the ferment, which consists in the dough of the mash and to exaing and the data in the drawings by O, and the flaring portion, and prior to the dough being allowed to stand and inter and the art of making dough for fermented bread, the described process, which consists in repetided or expanded on the drawings and size. A standing was set forth. (15) The data distermination of the ferment, which consists in repetides and wain data casing machine constactivic oropocket portion, and prior to the

rotation with a centrifugal speed, until sheet-like or shred-like sub-masses are formed; third, in recombining such submasses into the general lough-mass; and, fourth, continumasses into the general lough-mass; and, fourth, continu-ing said sheeting and shredding and recombining opera-tions rapidly to completely and quickly distribute the ferment and hydrate the gluten, substantially as set forth. (6.) In the art of making dough for fermented or leavened bread, the prescribed process, which consists in mixing the flour and water with the other ingredients of the dough in the propertions of one hundred parts by weight of mixing the hour and water with the other ingretients of the dough in the proportions of one hundred parts, by weight, of flour, to approximately eighty-seven parts, by weight, of water, and then, after they have become a coherent mass, completing the hydration of substantially all the gluten, and simultaneously disseminating the yeast or ferment within this hydrated gluten at one initial and continuous operation, and prior to the dough being allowed to rise under the influence of the yeast or ferment, substantially as set forth. (7.) In the art of making dough for fermented or leavened bread, the described process, which consists in mechanically bread, the described process, which consists in mechanically completing the intermingling of substantially all of the gluten of the flour with water, thereby completing the hy-dration of the gluten, and simultaneously disseminating the yeast or ferment within the said hydrated gluten, at one initial operation, and prior to the dough being allowed to rise under the influence of the yeast or ferment, then per-mitting the dough so made to rise, and then subdividing and being the same before any breaking-down or decomposition baking the same before any breaking-down or decomposition of the nitrogenous elements of the flour takes place under the action of the ferment, substantially as set forth. (8.) The described improvement in the art of making dough which consists in intermingling the constituents of the dough to form a coherent mass, and, after such mass has been formed, rapidly drawing out the said mass into sheets, shreds, or membranes, drawing out the said mass into sheets, shreds, or membranes, and blowing or forcing air into the dough while such sheets, shreds, and membranes are being formed, substantially as set forth. (9.) The described improvement in the art of making dough which consists in agitating the dough, sup-plying air to the dough during such agitation, and cooling the air before it is so supplied, substantially as set forth. (10.) The described improvement in the art of making dough which consists in agitating the dough in the presence of which consists in agitating the dough in the presence of air supplied thereto at a temperature lower than the temair supplied thereto at a temperature lower than the tem-perature at which the dough should be maintained during the agitation, substantially as set forth. (11.) The described improvement in the art of making fermented dough which consists in intermingling the constituents of the dough including a yeast or other ferment, to form a moist co-herent mass, agitating such dough-mass, and during such agitation supplying air, whereby the dough-mass may be permeated therewith, and carrying off the air at substan-ially the same rate as it is supplied, whereby it may serve agitation supplying air, whereby the dough-mass may be permeated therewith, and carrying off the air at substan-tially the same rate as it is supplied, whereby it may serve as a medium to prevent overheating of the dough, substan-tially as set forth. (12.) A machine for treating dough characterized by a rotary beater mounted within a vessel or casing, and having spider arms arranged to move close to the ends of the casing and to remove therefrom the dough which may adhere to such ends and force it toward the centre of the machine, and having also bars extending between the opposite spider arms, the bars being bent near their ends where they connect with the spider-arms to assist in forcing the dough into the path of the beater-arms, substantially as set forth. (13.) In a machine for making and working dough, having a casing, and a beater revolving therein, the described mechanism for driving the beater steadily and at a high speed, and consisting of gear-wheels E at the opposite ends of the beater-shaft, other gear-wheels connected therewith and mounted on a countershaft, balance wheels on said countershaft adjacent to the said gearing, and means whereby power is applied to the counter-shaft, substantially as set forth. (14.) In a dough-working machine, the casing in which a revolving beater operates, characterized by either one or both of the following features of construction—to wit, the eccentric or pocket por-tion, designated in the drawings by O, and the flaring portion designated by O², substantially as set forth. (15.) A dough-working machine characterized by a revolving beater, and a casing in which the beater is mounted, being flared or expanded on one side, as at O², and having an air.duct opening into the casing adjacent to such flaring peaker, and a casing in which the beater is mounted, being flared or expanded on one side, as at O^2 , and having an air-duct opening into the casing adjacent to such flaring portion, and a deflecting-plate adjacent to the open end of such duct for directing the air in the general direc-tion of the movement of the beater, substantially as set forth. (16.) A dough-working machine characterized by means for the direction and abreadding the double and means for foreing sheeting and shredding the dough and means for forcing sheeting and shredding the dough and means for forcing into the casing where such sheeting operation is taking place quantities of air, which air is adapted to serve as a vehicle for carrying away heat which may be generated during the working of the dough, and which also serves to aerate the dough, substantially as set forth. (17.) In an apparatus for making and working dough, the following features, when arranged and combined substantially as set forth the weit against a bestar revolving within the casing forth—to wit, a casing, a beater revolving within the casing, a fan or blower for forcing the air into the casing when the

No. 12336.—24th January, 1900.—RICE OWEN CLARK, Jun., of Hobsonville, Auckland, New Zealand, Pipe-manu-facturer. Improvements in or relating to foundation-piles for buildings.

Claims.—(1.) In a foundation-pile, a recess in the top of the pile to receive the foundation-plate of a building, sub-stantially as set forth. (2.) In a foundation-pile, a recess in the top of the pile in combination with a bolt or the like for securing the foundation-plate, substantially as set forth. (3.) In a foundation-pile, a recess in the top of the pile, and a bolt or the like for securing the foundation-plate, in com-bination with a hole for ventilation and overflow of water from the interior of the pile, substantially as set forth. (4.) In a foundation-pile, a dovetail-shaped recess in the top of the pile, in combination with wedges for securing the foundation - plate, substantially as set forth. (5.) In a foundation-pile, a usb the top of the pile to receive the foundation-pile, a recess in the top of the pile to receive the foundation-pile, a normaling in combination with a foot on the base of the pile, substantially as set forth. (6.) The improvements in or relating to piles for the founda-tions of buildings consisting of parts constructed and ar-(c.) The improvements in or relating to plus for the founda-tions of buildings consisting of parts constructed and ar-ranged substantially as set forth. (Specification, 2s. 3d.; drawings, 3s.)

No. 12337.—25th January, 1900.—FRANK JACOBS, of Apiti, New Zealand, Engine-driver. Improved threshing apparatus.

Claims.—(1.) In threshing-apparatus, the combination of a beater-drum and concave pulley upon the beater-drum spindle connected by a belt with a fly-wheel, a handle by which said fly-wheel is revolved, a conveyer for carrying away straw and debris from the concave, receiving motion from a pulley upon the axle of the fly-wheel, said pulley being connected by a belt with a pulley upon the axle of a drum around which the conveyer passes, substantially as specified and illustrated. (2.) In threshing-apparatus, a beater-drum and concave, a conveyer for conducting straw and debris therefrom, an inclined reciprocating riddle extend-ing beneath the concave and conveyer, said riddle being con-nected by a connecting-rod with a crank-pin arranged eccentrically upon a pulley, said pulley being revolved by a belt from another pulley upon the spindle of a drum of the conveyer, substantially as described and illustrated. (3.) In threshing-apparatus, the combination of a beater-drum and concave, means for revolving same by hand-power from a fly-wheel, a conveyer, and plates beneath the riddle down-wardly inclined from the sides and endow of the restrict of the conveyer, and plates beneath the riddle down-wardly inclined from the sides and endow of the provention to the concave and conveyer, and plates beneath the riddle downconcave and conveyer, and plates beneath the riddle down-wardly inclined from the sides and ends of the apparatus to wardly inclined from the sides and ends of the apparatus to a delivery tube or shoot, substantially as specified and illustrated. (4.) In threshing-apparatus, the combination of a beater-drum and concave, a pulley upon the beater-drum spindle connected by a belt with a fly-wheel, means for revolving the fly-wheel by hand-power, a pulley upon the opposite end of the fly-wheel spindle connected by a belt with a pulley upon the drum-spindle of a conveyer, said con-veyer receiving straw and debris from the concave, a pulley veyer receiving straw and *debris* from the conceve, a pulley also upon said conveyer, drum spindle connected by a belt with a pulley having a crank-pin arranged eccentrically upon it, said orank-pin being connected by a rod with and impart-ing reciprocating motion to an inclined riddle, plates beneath said riddle inclined from the sides and ends of the apparatus to a delivery-shoot, substantially as and for the purposes described and illustrated. (5.) Threshing-apparatus con-sisting of the combination of parts constructed, arranged, and operating substantially as specified, and illustrated in the derivery the drawings. (Specification, 4s. 6d.; drawings, 5s. 6d.)

F. WALDEGRAVE. Registrar.

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

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

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

Provisional Specifications.

Patent Office,

Patent Office, Wellington, 31st January, 1900. A PPLICATIONS for Letters Patent, with provisional specifications, have been accepted as under:--No. 11874.--10th August, 1899.--ALFRED TINDILL, of Wellington, New Zealand, Travelling Insurance Agent (nominee of the Revolving Heel Company, of Burnley, Lancashire, England, the assignees of George Wood, of 4, Croft Street, Burnley 'aforesaid, Mining Engineer). An improved heel-pad or protector for boots and shoes and slippers. slippers.

No. 12297.—8th January, 1900.—WALTER BAGBY, of Kohimarama, Tamaki West, Auckland, New Zealand, Horse-trainer. An improved horse-cover.
No. 12302.—11th January, 1900.—PERCIVAL CALVERT KNIGHT YOUNG, of Lawrence, Otago, New Zealand, Dredge-man. An invention for raising water.
No. 12309.—16th January, 1900.—CHABLES BRISTOW, Grovely, Marton, New Zealand, Mechanical Engineer. Im-provements in seed feeding devices.
No. 12311.—16th January, 1900.—WILLIAM JOHN MORGAN, of Upper Taranaki Street, Wellington, New Zealand, In-structor. An improved method of giving instruction in the measurement of timber.
No. 12312.—16th January, 1900.—HEBMAN HOUSE, of

No. 12312.—15th January, 1900.—HERMAN HOUSE, of Wharf Street, Oamaru, New Zealand, Importer. Windowshade adjuster.

No. 12315.—18th January, 1900.—WILLIAM SPEEDIE DUN-STAN, of Hargreaves Street, Castlemaine, Victoria, Butcher. An improved electrical alarm for use on level crossings of railways.

No. 12316.—18th January, 1900.—LOUIS MORRIS, Manu-facturer, and ROBERT YOUNG, Warehouseman, both of Dunedin, New Zealand. Improvements in temperature indicators

No. 12320.—15th January, 1900.—FRANCIS CHABLES JAMES OLSEN, of Invercargill, New Zealand, Photographer. An improved economical twine-holder. No. 12323.—17th January, 1900.—ABRAHAM SKILLICORN, of Gisborne, New Zealand, Settler. An improved wool-

press.

press. No. 12329.—23rd January, 1900. — JOHN MCINNES, of Kaurihohore, Whangarei, New Zealand, Mechanic. An improved machine for dressing New Zealand flax. No. 12331.—20th January, 1900.—HENRY DAITON, of 72, Colombo Street, Sydenham, Christchurch, New Zealand, Plumber. An invention for rolling metal tubes and the like. No. 12332.—23rd January, 1900.—ROBERT ADAMS WILSON, of Bull's, Rangitikei, New Zealand, Farmer. Improvements in grass-seed-cleaning machines.

of Bull's, Rangitikei, New Zealand, Farmer. Improvements in grass-seed-cleaning machines. No. 12334.-23rd January, 1900.-WILLIAM BURBELL, of 193, Abbotsford Street, North Melbourne, Viotoria, Stone-mason, and JAMES WILLIAM STORY, of 201, William Street, Melbourne aforesaid, Merchant. An improved crate for packing or exporting rabbits. No. 12338.-25th January, 1900.-ERNEST ROBERT Gon-warn, of Invercargill, New Zealand, Engineer. Improve-ments in or relating to lids of cans and the like. No. 12341.-23rd January, 1900.-ELUZA ELLEN EABLE, of Wicksteed Street, Wanganui, New Zealand, Wife of Robert Charles Earle, of Wanganui aforesaid, Medical Prac-titioner. A butter-cooler.

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,

IST of Letters Patent sealed from the 18th January, No. 11062.—J. J. F. Walker and J. Sutherland, toast

No. 11062. - J. J. T. making apparatus. No. 11088. - H. House, grain- and seed-oleaner. No. 11100. - D. W. McLean, cotton-reel holder and cutter. No. 11105. - J. Robertson, window-lock. C. Lovell. slash- or bill-hook.

No. 11115.—G. Lovell, slash- or bill-hook. No. 11253.—H. A. Ross, supply and ejector cistern. No. 11278.—J. King, hoe. No. 11340.—J. Macalister, harvester. No. 11852.—G. E. Tissington and J. R. Thomson, pro-pling biogeles.

pelling bioycles. No. 11862.--A. L. Barber, propelling vehicles (F. O.

and F. E. Stanley). No. 11888.-I. A. Timmis, food.

FEB. 1.]

No. 11958.-F. Saunders, displaying bottles, &c. (A. Saunders) No. 12055. -D. Gilmour, lumber.

- No. 12078.—A. C. Kley, printing and marking apparatus. No. 12079.—A. C. Kley, inking-pad. No. 12080.—A. C. Palmer, adjusting pneumatic tires to head view. wheel-rims.

No. 12081.—J. Campbell and L. R. Davis, piano lights. No. 12084.—J. J. Jovce, printing-block. No. 12087.—E. W. Parish, cooking and heating apparatus. No. 12088.—D. Gilmour, lumber. No. 12089.—D. Buchanan, potato-digger. No. 12092.—W.*E. Shaw, cover for vessel.

F. WALDEGRAVE, Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 8214.-W. Cutten, dredge-winch. 16th January, 1900. No. 8268. — The Taranaki Condensed Milk Company, Limited, treating skim-milk. (D. Munro.) 29th January,

1900.

No. 8288.—R. J. Loyd-Lindsay, Baron Wantage, cycle.
(B. and F. Ljungstrom.) 23rd January, 1900.
No. 8306.—The American Tobacco Company of New Zealand, Limited, cigarette - machine. (H. Bilgram.) 20th

January, 1900. No. 8307.—The American Tobacco Company of New Zea-land, Limited, cigarette-machine. (J. A. Bonsack.) 20th

January, 1900. No. 8308.—The American Tobacco Company of New Zea-land, Limited, cigarette-machine. (J. A. Bonsack.) 20th

January, 1900. No. 8309.—The American Tobacco Company of New Zea-land, Limited, cigarette-machine. (M. Kirshner.) 20th

January, 1900. No. 8326. — The Tubeless Pneumatic Tire and Capon Heaton, Limited, tire. (H. A. Fleuss.) 25th January, 1900.

No. 8339.-T. B. Lightfoot, air cooler or heater. 25th January, 1900.

THIRD-TERM FEES.

No. 6029.—S. Morrell, sash-fastener. 20th January, 1900. No. 6043.— The Haskin Wood vulcanizing Company, Limited, vulcanizing wood. (S. E. Haskin.) 20th January, 1900.

F. WALDEGRAVE, Registrar.

Subsequent Proprietors of Letters Patent registered.

[Note.-The names of the former proprietors are given in brackets; the date is that of registration.]

N. C. 3269.—Sir Francis Knollys, K.C.B., K.C.M.G., of St. James's Palace, and Ferdinand Faithfull Begg, M.P., of Bartholomew House, both in London, England (trustees for the debenture-stock holders of the Edison-Bell Consolidated Phonograph Company, Limited); phonograph. [The Edison United Phonograph Company.—T. A. Edison.] 80th Jamuary 1900

[The Edison United Phonograph Company—1, A. Buisca., 30th January, 1900. No. 3270.—Sir Francis Knollys, K.C.B., K.C.M.G., of St. James's Palace, and Ferdinand Faithfull Begg, M.P., of Bartholomew House, both in London, England (trustees for the debenture-stock holders of the Edison-Bell Consoli-dated Phonograph Company, Limited); phonogram. [The Edison United Phonograph Company—T. A. Edison.] 30th

Bedison United Phonograph Company—T. A. Edison.] 30th
January, 1900.
No. 3411.—Sir Francis Knollys, K.C.B., K.C.M.G., of
St. James's Palace, and Ferdinand Faithfull Begg, M.P.,
of Bartholomew House, both in London, England (trustees
for the debenture-stock holders of the Edison-Bell Consolidated Phonograph Company, Limited); speech-recorder.
[The Edison United Phonograph Company—E. Waters.]
30th January, 1900.
No. 3571.—Sir Francis Knollys, K.C.B., K.C.M.G., of
St. James's Palace, and Ferdinand Faithfull Begg, M.P.,
of Bartholomew House, both in London, England (trustees
for the debenture-stock holders of the Edison-Bell Consolidated Phonograph Company, Limited); recording sounds.
[The Edison United Phonograph Company—T. A. Edison.]
30th January, 1900. 30th January, 1900.

No. 3572. — Sir Francis Knollys, K.C.B., K.C.M.G., of St. James's 'Palace, and Ferdinand Faithfull Begg, M.P., of Bartholomew House, both in London, England (rustees for the debenture-stock holders of the Rdison-Bell Consoli-dated Phonograph Company, Limited); phonograph. [The Edison United Phonograph Company—T. A. Edison.] 30th January, 1900.

No. 3573. — Sir Francis Knollys, K.C.B., K.C.M.G., of St. James's Palace, and Ferdinand Faithfull Begg, M.P., of Bartholomew House, both in London, England (trustees for the debenture-stock holders of the Edison-Bell Consoli-dated Phonograph Company, Limited); recording sounds. [The Edison United Phonograph Company—T. A. Edison.] 2024 Lineare 1000 30th January, 1900.

No. 3895. - Sir Francis Knollys, K.C.B., K.C.M.G., of St. James's Palace, and Ferdinand Faithfull Begg, M.P., of Bartholomew House, both in London, England (trustees for the debenture-stock holders of the Edison-Bell Consoli-dated Phonograph Company. Limited); phonograph. [The Edison United Phonograph Company—T. A. Edison.] 30th January, 1900.

No. 4607. — Sir Francis Knollvs, K.C.B., K.C.M.G., of St. James's Palace, and Ferdinand Faithfull Begg, M.P., of Bartholomew House, both in London, England (trustees for the debenture-stock holders of the Edison-Bell Consoli-dated Phonograph Company. Limited); phonograph. [The Edison United Phonograph Company—T. A. Edison.] 30th January, 1900.

No. 5919. — Sir Francis Knollys, K.C.B., K.C.M.G., of St. James's Palace, and Ferdinand Faithfull Begg, M.P., of Barthelomew House, both in London, England (trustees for the debenture-stock holders of the Edison-Bell Consolidated Phonograph Company, Limited); phonograph. Edison United Phonograph Company—T. A. Edison.] [The 30th January, 1900.

No. 9015.—The Granville Automatic Typewriter Svndicate, Limited, of 54 and 55, Cornhill, London, England, Manu-facturers; typewriter. [A. G. Corre—B. Granville.] 30th January, 1900.

No. 10005.—The Monotype Machine (Colonial Patents) Syndicate, Limited, whose registered office is at 42, Drury Lane, London, W.C., England; machine for prenaring re-cord-strips of type-forming machines. [Lanston Monotype Machine Company—T. Lanston.] 30th Januarv, 1900.

No. 10006.—The Monotype Machine (Colonial Patents) Syndicate, Limited, whose registered office is at 42, Drury Lane, London, W.C., England; type casting and composing machine. [Lanston Monotype Machine Company—T. Lan-ston.] 30th January, 1900.

No. 10123.—Belk's Ship-raising and Propeller Investment Company of New Zealand, Limited, a company registered and incorporated under "The Companies Act, 1882," of New Zealand, and having its registered office at Palmerston North, New Zealand; raising sunken vessels. [J. A. Belk.] 30th January, 1900.

No. 10124.—Belk's Ship-raising and Propeller Investment Company of New Zealand, Limited, a company registered and incorporated under "The Companies Act, 1882," of New Zealand, and having its registered office at Palmerston North, New Zealand; propeller. [J. A. Belk.] 30th January, 1900.

No. 10947.—Robert Glendining, of Dunedin, New Zea-land, Manufacturer; coat adjustments. [D. Nable.] 30th January, 1900.

F. WALDEGRAVE, Registrar.

Applications for Letters Patent lapsed.

IST of applications for Letters Patent (with which com-plete specifications have been lodged) lapsed from the 18th January, 1900, to the 31st January, 1900, inclusive :-No. 10812.-A. C. Aitken, car-lamp. No. 10819.-R. Brinsley and P. S. B. Bett, fire-box. No. 10829.-E. Smethurst and R. W. Chapman, wire-

fencing dropper.

No. 10830,-G. A. Gamman, feed-gear for saw-bench.

F. WALDEGRAVE, Registrar.

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Letters Patent void.

IST of Letters Patent void through non-payment of fees 1 from the 18th January, 1900, to the 31st January, 1900, inclusive :--

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 7986.—Compagnie générale pour l'exploitation des machines à fabriquer les cigares (Brevets J. Reuse) Société Anonyme, cigar-machine (J. Reuse). No. 7988.—J. Pearson, pollard-distributing apparatus. No. 7989.—I. Davis, wheel and axle.

No. 7996 .- R. Wallace and G. Preddey, closet-pan (A. Gross.)

No. 8001.—E. J. Curran, garment pocket. No. 8004.--J. Meckiff, E. R. Gamlin, and T. Ellis, butterbox.

No. 8010.—W. Hooker, solution for gas-mantle. No. 8020.—J. A. Berg, vehicle. No. 8026.—J. Sinclair, sailing-rig for vessel.

THROUGH NON-PAYMENT OF THIRD-TERM FEE.

No. 5849.-J. Gray, seed-canister. F. WALDEGRAVE,

Registrar.

Request for Correction of Clerical Error.

No. 80, of the 28th September, 1899, and No. 6, of the 18th January, 1900).

To alter the name of one of the nominators—*i.e.*, "Kin-man" to "Kimman."

F. WALDEGRAVE, Registrar.

Designs registered.

ESIGNS have been registered in the following names on the dates mentioned :-

No. 114.—George Swan Ross, of Lower Riccarton, net Christchurch, New Zealand; Class 1; 29th January, 1900. near No. 115.—Frank Tydeman, of Lambton Quay, Wellington. New Zealand (Manager), Jeweller, &c.; Class 1; 29th January, 1900.

F. WALDEGRAVE, Registrar.

Applications for Registration of Trade Marks.

Patent Office. Wellington, 31st January, 1900. 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: 2798. Date: 15th September, 1899.

TRADE MARK.

ACME.

The applicants claim that the said trade mark has been in use by them and their predecessors in business in respect of the articles mentioned for fourteen years before the 2nd day of September, 1889.

NAME.

GILL BROTHERS AND COMPANY, of Steubensville, Ohio, United States of America, Manufacturers of Glass.

No. of class: 15.

The word

Description of goods: Glass, including lamp-chimneys, lantern-globes, and silvered-glass reflectors.

[Norm.-This notice is repeated on account of a clerical error having occurred in the former advertisement of the application, in Gasette No. 80, of the 28th September last.]

No. of application: 2848. Date: 3rd November, 1899.

TRADE MARK.

LOADSTAR.

NAME.

HY. MARRWALD, of 2, Commercial Union Buildings, Lambton Quay, Wellington, New Zealand.

Description of goods: Food, and substances used as ingredients of food.

No. of application: 2853. Date: 8th November, 1899.

TRADE MARK.



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

NAME.

SHARLAND AND Co., LIMITED, of Wellington and Auckland, New Zealand, Wholesale Druggists.

No. of class: 42.

Description of goods: Cordials, non-alcoholic, non-medi-cated, baking-powder and egg-powder.

No. of class: 42.

The word

FEB. 1.]

The word

THE NEW ZEALAND GAZETTE.

No. of application: 2884.

Date: 28th November, 1899.

TRADE MARK.

WOLVERINE.

NAME. WILLIAM BARNETT, of Christchurch, New Zealand, Retail and Manufacturing Chemist.

No. of class: 48.

Description of goods: Toilet preparations.

No. of application: 2894. Date: 7th December, 1899.



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

NAME.

EDWARD OWEN AND Co., of 21, Ludgate Hill, Birmingham, England, and Continental Steel-works, Headford Street, Sheffield, England, Merchants.

No. of class: 12.

Description of goods: Cutlery and edge tools.

No. of application: 2901. Date: 15th December, 1899.

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TRADE MARK.

The applicants claim that the said trade mark has been in use by them in respect of the article mentioned since before the year 1890.

NAME.

WATSON AND McGILL, of Petersburg, Virginia, United States of America, Tobacco-manufacturers.

No. of class: 45.

Description of goods : Tobacco manufactured.

THE NEW ZEALAND GAZETTE.

No. of application: 2902.

Date: 15th December, 1899.

TRADE MARK.



The applicants claim that the said trade mark has been in use by them in respect of the article mentioned since before the year 1890.

NAME.

WATSON AND MCGILL, of Petersburg, Virginia, United States of America, Tobacco-manufacturers.

No. of class: 45.

Description of goods : Tobacco manufactured.

No. of application: 2903. Date: 15th December, 1899.



TRADE MARK.

The applicants claim that the said trade mark has been in use by them in respect of the article mentioned since before the year 1890.

NAME.

WATSON AND McGILL, of Petersburg, Virginia, United States of America, Tobacco-manufacturers.

No. of class: 45.

Description of goods: Tobacco manufactured.



[No. 9

Feb. 1.]

No. of application : 2904.

Date: 15th December, 1899.

TROE MARK

The applicants claim that the said trade mark has been in use by them in respect of the article mentioned since before the year 1890.

NAME.

WATSON AND McGILL, of Petersburg, Virginia, United States of Americo, Tobacco-manufacturers.

No. of class: 45.

and the second s

Description of goods : Tobacco manufactured.

No. of application: 2905.

Date: 15th December, 1899.



The applicants claim that the said trade mark has been in use by them in respect of the article mention d since before the year 1890.

NAME.

WATSON AND MCGILL, of Petersburg, Virginia, United States of America, Tobacco-manufacturers.

No. of class: 45.

Description of goods: Tobacco manufactured.

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THE NEW ZEALAND GAZETTE.

No. of application : 2927. Date : 15th January, 1900.

The words

TRADE MARK. UWANTA CIGAR.''

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

NAME. EDWIN CHARLES BATKIN, of Wellington, New Zealand, Tobacconist.

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

No. of application : 2928. Date: 18th January, 1900.

The word

TRADE MARK.

NAME.

LEVER BROTHERS, LIMITED, of Balmain, near Sydney, New South Wales, Soap-manufacturers.

No. of class : 47.

Description of goods: Laundry soap, and all other preparations for laundry purposes in Class 47.

No. of application: 2929. Date: 18th January, 1900.

The word

TRADE MARK.

NAME.

LEVER BROTHERS, LIMITED, of Balmain, near Sydney, New South Wales, Soap-manufacturers.

No. of class: 48.

Description of goods: Perfumed soap, and all other preparations for toilet purposes in Class 48. No. of application : 2932. Date : 18th January, 1900.



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

NAME. HENRY BERRY AND Co., of Christchurch, New Zealand, Merchants.

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

No. of application : 2934. Date : 23rd January, 1900.

The word

TRADE MARK.

PARASITOSCIDE.

The applicants claim that the said trade mark has been in use by them and their predecessors in business in respect of the articles mentioned since before the year 1890.

NAME.

CHARLES WENTWORTH LANGSTONE, of Wellington, New Zealand, Veterinary Surgeon, and JESSIE ELIZABETH LANGSTONE, of the same place, wife of the said Charles Wentworth Langstone.

No. of class: 2.

Description of goods: Cattle, horse, and sheep medicines.

ANS -

[No. 9

FEB. 1.]

No. of application : 2935. Date: 23rd January, 1900.

The word

TRADE MARK.



NAME.

THE VASS CHEMICAL COMPANY, of 37, Foster Street, Danbury, Connecticut, United States of America, Manufacturers.

No. of class: 3.

Description of goods: Medicinal preparation.

F. WALDEGRAVE, Registrar.

Trade Marks registered.

IST of Trade Marks registered from the 18th January, 1900, to the 31st January, 1900, inclusive :

1910. Trate marks registered from the foul standary, 1900. to the 31st January, 1900. inclusive :—
No. 2219; 2815.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 2. (Gazette No. 93, of the 10th November, 1899.)
No. 2220; 2816.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 3. (Gazette No. 93, of the 10th November, 1899.)
No. 2221; 2817.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 42. (Gazette No. 93, of the 10th November, 1899.)
No. 2222; 2818.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 44. (Gazette No. 93, of the 10th November, 1899.)
No. 2223; 2819.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 47. (Gazette No. 93, of the 10th November, 1899.)
No. 2223; 2819.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 47. (Gazette No. 93, of the 10th November, 1899.)
No. 2224; 2820.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 48. (Gazette No. 93, of the 10th November, 1899.)
No. 2224; 2820.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 50. (Gazette No. 93, of the 10th November, 1899.)
No. 2225; 2821.—Kempthorne, Prosser, and Co.'s New Zealand Drug Company, Limited; Class 50. (Gazette No. 93, of the 10th November, 1899.)
No. 2226; 2526.—H. Cooper; Class 50. (Gazette No. 85, of the 24th November, 1898.)

No. 2227; 2796.—Sharland and Co., Limited; Class 50. (Gazette No. 80. of the 28th September, 1899.) No. 2228; 2833.—Sharland and Co., Limited; Class 50. (Gazette No. 89, of the 26th October, 1899.) No. 2229; 2674.—H. J. Barraclough; Class 3. (Gazette No. 52, of the 22nd June, 1899.) —No. 2230; 2856.—E. T. Williams; Class 39. (Gazette No. 99, of the 23rd November, 1899.)

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.]

N.O. 872/774.—Sir Francis Knollys, K.C.B., K.C.M.G., of St. James's Palace, and Ferdinand Faithfull Begg, M.P., of Bartholomew House, both in London, England (trustees for the debenture-stock holders of the Edison-Bell Consolidated Phonograph Company, Limited). [Edison United Phonograph Company.] 30th January, 1900. No. 1954/2457.—John Gosnell and Co., Limited, of 93, Upper Thames Street, London, England. Perfumers and Scapmakers. [1 Gosnell and Co.] 20th January, 1900

Soapmakers. [J. Gosnell and Co.] 30th January, 1900.

YOPIES of "The Patents, Designs, and Trade Marks Act, 1889." with Regulations thereunder, and printed forms of application and specification. can be obtained from the Patent Office, the Government Printer, Local Patent Offices, or Money-order Offices. Local Patent Offices for the reception of applications for

Letters Patent Onces for the reception of applications for Letters Patent have been established at the following places: Auckland. Thames, New Plymouth, Wanganui. Gisborne, Napier, Blenheim, Westport, Greymouth, Hokitika, Christ-church, Ashburton, Timaru, Oamaru, Dunedin, Queenstown, Lawrence, and Invercargill. In every case the office is at the Courtheaute the Courthouse.

the Courthouse. Specifications of all Patents and Letters of Registration applied for in the colony can be inspected at the Patent Office, and particulars of Patents, &c., granted in England, the United States, Canada, and the Australian Colonies can be seen at the Patent Office Library, Wellington. The following publications of this office can be had from the Government Printer:--

Printed Specifications to the end of the year 1879.
 Annual Lists of Letters Patent and Letters of Registra-

Annual Dists of Letters Patent and Letters of Registra-tion applied for, and Particulars of Applications and Patents lapsed from 1880 to 1888, inclusive.
 Annual Reports of the Registrar, containing list of Letters Patent, nature of Letters Patent, &c., applied for during the years 1889 to 1898, inclusive.

F. WALDEGRAVE, Registrar.

By Authority : JOHN MACKAY, Government Printer, Wellington.

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