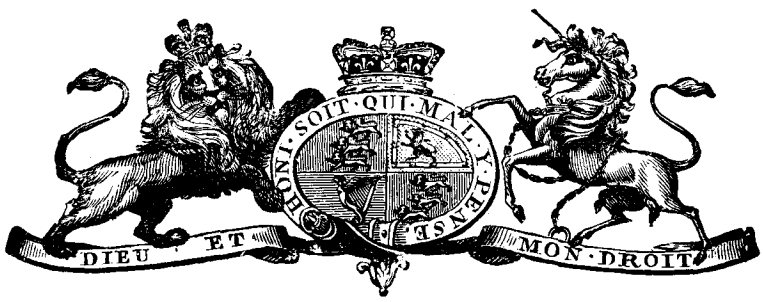

SUPPLEMENT

TO THE

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CONTENTS.

Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 20th January, 1904.

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

No. 15028.—28th March, 1903.—EMILY SAXTON, of "Oakland," Stoke, Nelson, New Zealand. An improved cycling gauntlet.*

A

Claims.—(1.) An attachment to the handle-bars of cycles, the same consisting of a gauntlet of suitable material, one end of which is secured closely around the handle-bar beyond the inner end of the handle, while the other end extends rearwardly and loosely around the handle, substantially as and for the purposes specified. (2.) An attachment to the handle-bars of cycles, the same consisting of a gauntlet of suitable material, one end of which is secured closely around the handle-bar beyond the inner end of the handle and is provided with a rearwardly extending portion secured to it which is adapted to closely envelope the handle, while the other end of the gauntlet extends rearwardly and loosely around the handle, substantially as and for the purposes specified.

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

No. 15575.—30th October, 1902.—THOMAS COSSAR, of 6, Osborne Place, Govan, Lanark, Scotland, Printer. Improvements in printing-machines.

Claims.—(1.) A flat-bed oscillating-cylinder printing-machine, constructed and organized as described, for printing and perfecting a continuous web of paper in proper register and folding the printed sheet, all as described. (2.) In a flat-bed oscillating-cylinder printing-machine the arrangement in combination with the continuously running feeding-in and feeding-out rollers of looping-rolls, carried by racks operated by gearing from a cam to feed a continuous web of paper and maintain a proper tension and register in drawing it under the impression-cylinder, substantially as described. (3.) In a flat-bed oscillating-cylinder printing-machine, the arrangement of looping-rollers carried within the impression-cylinder and operated by means of lever devices and an external cam, substantially as described. (4.) The combination with a flat-bed oscillating-cylinder printing-machine, constructed as described, of re-winding devices for reeling a web printed on

one side, comprising an endless band arranged to drive the winding-roller by surface-contact with the paper, and a counterpoised tensioning roller, arranged to act on the driving-band to vary the rate of winding to correspond with the rate of delivery of the web. (5.) In apparatus for cutting and folding a paper web delivered from a printing-machine, the arrangement of folding-cylinders fitted with spring-actuated fingers for taking up the slack of the web delivered to the folder. (6.) In a printing-machine, the arrangement of mechanism constructed as described under several modifications for accelerating or retarding the rate of movement of the feed-rollers to maintain proper register in perfecting a printing-web. (7.) In a printing-machine, the combination with register-gear of the kind referred to in the preceding claim of mechanism for perforating the web in the first printing, and automatically actuating the register-gear in the perfecting operation.

(Specification, £1 12s. 6d.; drawings, 6s.)

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

Claims.—(1.) The general construction, arrangement, and combination of parts composing my improved means for hanging sashes, doors, and the like, all substantially as and for the purposes set forth. (2.) A continuous cord extending from one end of a spring-actuated roller to the other end thereof, running round pulleys mounted at or near each end of the top rail of a sash, said cord being secured to said roller so as to be wound up thereby, substantially as and for the purposes set forth. (3.) A telescoping roller consisting of a hollow spindle, a supporting bearing for one end thereof, two circular flanges thereon forming a drum near said bearing, a spring surrounding said hollow spindle and secured by one end thereto and by its other end to a case covering said hollow spindle, a locking-bolt on said case adapted to enter a hole in one of said flanges, a loose spindle with one end adapted to enter said hollow spindle and with its other end to enter a sheath, a supporting bearing for one end of said sheath, two circular flanges on said sheath forming a drum, and a set-screw to clamp said loose spindle to said sheath at a desired length, substantially as and for the purposes set forth.

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

No. 16029. — 27th February, 1903. — SAMUEL GEORGE DICKSON, of 538, Elizabeth Street, Melbourne, Victoria, Pattern-maker. Improvements in machines for manufacturing horse-shoes.*

Extract from Specification.—This invention relates to improvements in machines designed for use in the manufacture of horse-shoes. In it a suitably prepared heated bar or rod of iron, steel, or other metal of the proper length is fed through a feed-race or channel to between a pair of rotary, swaging, and fullering rolls of novel form, in order to bring the bar to its proper varying section, and at the same time form the fullering and the nail-hole recesses when afterwards the so-far-prepared bar is led direct through a tubular channel or race to between a pair of rotary rolls or dies which convert it into the requisite horse-shoe shape. Means are provided for feeding the heated bars to the rolls or dies and for ejecting the finished horse-shoe from the lower dies, and also for operating the whole of the moving parts by mechanical movements and gearing.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

(Specification, 7s. 6d.; drawing, 3s.)

No. 16037.—2nd March, 1903.—JAMES MCLEAN, of Seatoun, near Wellington, New Zealand, Marine Engineer, and PETER ELLIS, of Kilbirnie, near Wellington aforesaid, Mechanical Engineer. An improved tap, and apparatus in connection therewith, for use in drawing off beer and other liquids from containing-vessels.*

Claims.—(1.) In apparatus of the character substantially as described, a tap provided with a plug having a channel around part of its circumference, the barrel of the said tap having a hole through which air may pass to the said channel, a branch upon the said barrel having a hole, and means for connecting the said branch to the top of a cask, as set forth. (2.) In apparatus of the character substantially as described, a tap provided with a plug having a channel around part of its circumference, the barrel of the said tap having a hole through which air may pass to the said channel, a branch upon the said barrel having a hole, a bent pipe attached to the top and connecting with the interior of the beer-barrel, and a pipe connecting the branch on the tap and the said bent pipe, as set forth. (3.) The combination in apparatus of the character substantially as described, of a tap provided with a plug having a channel around part of its circumference, the barrel of the said tap having a hole through which air may pass to the said channel, a branch upon said channel having a hole, a bent pipe attached to the top of and communicating with the interior of the cask, a valve chamber having a by-pass and nozzle upon free end of the bent pipe, a non-return valve seat in the valve-chamber, and a pipe connecting the branch on the tap and nozzle of the said bent pipe, as set forth. (4.) The combination and arrangement of parts comprising the improved tap and apparatus in connection therewith for use in drawing off beer and other liquids from containing-vessels, substantially as and for the purposes set forth and illustrated upon the drawings.

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

No. 16051.—2nd March, 1903.—ARTHUR CHARLES ATKIN, of Auckland, New Zealand, Coach-builder. An improved roadster and gig seat.*

Claims.—(1.) The slots specified secured to the shafts of the buggy for the purpose set forth, substantially as described and illustrated. (2.) In combination, the risers hinged to the seat of the buggy and stayed thereto, the projections fixed to the under-parts of the risers and fitted in the slots secured to the shafts of the roadster, gig, or buggy, for the purpose set forth substantially as described.

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

No. 16106.—19th March, 1903.—ROBERT MCKNIGHT, of 2837, Boudinot Street, Philadelphia, Pennsylvania, United States of America, Metallurgist. Improvements in electro-magnetic separators.*

Claims.—(1.) In an electro-magnetic separator, in combination, an ore-receiving apron having a long inclined upwardly travelling surface and a series of electro-magnets situated and movable relatively to said apron, as described. (2.) In an electro-magnetic separator, in combination, an apron (for receiving ore or the like at its head) having an upward travel, as aforesaid, a series of electro-magnets situated and movable relatively to said apron as aforesaid, and having poles of different polarity presented towards the apron and means for regulating the feed and movement of material relatively to the apron, as described. (3.) In an electro-magnetic separator, the combination of a movable apron and series of electro-magnets, a feed-hopper with gate or the like, water or air jet (or both) tubes, means to make the apron and belt diverge after ascending an incline, and means to remove adhering ore from the apron, all as described. (4.) In an electro-magnetic separator, the combination with an apron of (or partly of) iron slats or suitable metal, movable up a long incline or the like, and of an electro-magnet carrying-belt movable simultaneously with the apron as set forth, means for feeding material to be separated near the top of the inclined surface, and means for separating from the apron material carried up said incline, as described. (5.) In an electro-magnet separator, the combination with a movable slat-belt of the parts described relatively to Figs. 3 and 4. (6.) In an electro-magnetic separator, the combination with a movable apron of a slat-belt having magnetic terminals, and contact pieces adapted to make and break contact from slat to slat during their motion, as described. (7.) In an electro-magnetic separator a movable apron and a movable belt partly diverging therefrom and arranged as described relatively to Figs. 8 and 9. (8.) In an electro-magnetic separator, a movable inclined apron with means for the supply of ore at its head, and close to it a simultaneously movable inclined belt with means for rendering the same electro-magnetic to the apron only at that part of their travel where they move up the incline, as described.

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

No. 16126.—25th March, 1903.—JOHN HEINRICH GATTSCHE, of Rangitikei Line, Palmerston North, New Zealand, Brewer. Improvements in boilers or boiler-pans used in breweries, soapworks, and other places.*

Claims.—(1.) In brewing, soapmaking, and other boilers, a cover of conical or tapering form secured above the top of the boiler, an opening in the cover provided with a sliding or other door, and a pipe leading upwards from the top of the cover provided with a damper-valve near its lower end, substantially as and for the purposes set forth. (2.) In brewing, soapmaking, and other boilers, a cover of conical or tapering form secured above the top of the boiler in such a manner as to form a rim around the bottom edge of the cover, holes at intervals within the cover around its bottom edge, an opening provided with a door in the cover, and a pipe leading upwards from the top end of the cover, all substantially as and for the purposes specified.

(Specification, 2s. 9d.; drawing, 1s.)

No. 16146.—25th March, 1903.—WALTER DAVID WILSON, of Albert Street, Auckland, New Zealand, Blacksmith. An improved swingletree-iron.*

Claim.—In the improved swingletree-iron specified the iron made with two open ends, shaped and tempered, with holes made therein in combination with screw-bolt to be passed through said holes, and nut to be screwed on to outer screw end of said bolt, said iron having loop projected therefrom for the purpose set forth, substantially as described and illustrated.

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

No. 16186.—4th April, 1903.—ROBERT CONGREVE, of 127, Colombo Street, Christchurch, New Zealand, Ironmonger. Improved locking-device for bicycles.*

Claims.—(1.) For the purpose indicated, the combination with a frame or other fixed part of a bicycle of a lock attached thereto, said lock having a bolt designed when operated to project into the path of a crank, spoke, or other revolving or rotating part of the bicycle, substantially as and for the purposes specified and illustrated. (2.) For the purpose indicated, in combination, a lock secured to the frame of a bicycle and a pivoted arm, said lock being designed to hold the arm in and out of its operative positions, substantially as specified and illustrated. (3.) For the purpose indicated, in combination, an arm pivoted upon the frame of a bicycle and a lock designed to hold said arm in and out of its operative positions, said arm being bifurcated to receive the crank of the machine, substantially as and for the purposes indicated. (4.) For the purpose indicated, in combination, a lock secured to the frame of a bicycle, a pivoted arm, a hook upon the end of said arm adapted to enter the lock and to engage a spring-operated catch therein, substantially as specified and illustrated. (5.) For the purposes indicated, an arm pivoted upon the frame of a bicycle and a spring clip upon the end of said arm adapted to be sprung over a frame-member of the machine and thereby to maintain said arm out of its operative position, substantially as set forth.

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

No. 16306.—2nd May, 1903.—CHARLES NUNN SCURR, of Dunedin, New Zealand, Student (nominee of Robert Wales, of Dunedin aforesaid, Engineer). Improved arm-adjustment for mitre-cutting frame.*

Claims.—(1.) In mitre-cutting machine of the class described, mechanism for raising one of the arms in an inclined plane, said arm remaining always horizontally substantially as and for the purpose set forth. (2.) In a mitre-cutting machine of the class described, a rest, brackets attached at an angle to the back thereof, a base piece, columns secured thereto at said angle and slidable in said brackets, a threaded bracket on said rest, and a screw therein substantially as and for the purposes set forth.

(Specification, 1s. 9d.; drawings, 2s.)

No. 16397.—28th May, 1903.—CHARLES VINCENT POTTER, of 20, Clyde Street, St. Kilda, Victoria, Engineer. An improved acidulated oleaginous solution, and process for mixing same, to be used for mixing paints, street-sprinkling, and kindred purposes.*

Claims.—(1.) The solution, consisting of oil, fat, or other oleaginous substance, water, and any one of the sphenic series or group, in the proportions and prepared or mixed as described. (2.) The process of mixing or preparing an acidulated oleaginous solution as and in manner and for the purposes set forth.

(Specification, 2s.)

No. 16442.—4th June, 1903.—DAVID THOMSON, of Gorgie Mains, Slateford Road, Edinburgh, Scotland, Engineer. Dividing-machine for dividing liquid, granular, and plastic substances from bulk.

Claims.—(1.) In dividing-machines, the arrangement of the screw, the means of carrying the substances into the cylinder and forcing them forward to the orifice, and of discharging them in equal units into the alternately receiving and discharging cylinders, substantially as and for the purposes described and illustrated on the sheets of drawings. (2). In dividing-machines, the arrangement of the cylinder and the screw, substantially as and for the purposes described and illustrated on the sheets of drawings. (3.) In dividing-machines, the arrangement of piston, substantially as described and illustrated in Figs. 8, 10, and 11 of the sheets of drawings. (4.) In dividing machines, the combination of the arrangement of the horizontal cylinder and the screw as claimed in claim 2, with a relief-cylinder and piston close to the orifice D17, substantially as described and illustrated on the sheets of drawings. (5.) In dividing-machines, forming the steel helix with a cutting-knife to cut vertically and a gradually-increasing pitch up to the point of the outlet-orifice, substantially as and for the purposes described and illustrated on the sheets of drawings. (6.) In dividing-machines, forming the circular knife at the entrance of the cylinder in such a manner as to cut longitudinally, substantially as and for the purposes described and illustrated on the sheets of drawings. (7.) In dividing-machines, the means for discharging the substances in quantities of equal cubic measurement, including the arrangement of the receiving and discharging cylinders and the slide and pistons, substantially as and for the purposes described and illustrated on the sheets of drawings. (8.) In dividing-machines, the means of regulating the cubic capacity of receiver cylinders, substantially as and for the purposes described and illustrated on the sheets of drawings. (9.) In dividing-machines, the slide in combination with the cylinders for receiving substances from the orifice of the screw cylinder, substantially as and for the purposes described and illustrated on the sheets of drawings. (10.) In dividing-machines, the combination of the arrangement of the cylinder and screw, as claimed in claim 2, with the slide and the receiving cylinders, substantially as and for the purposes described and illustrated on the sheets of drawings. (11.) In dividing-machines, the means for discharging the substances in equal units, including the combination of the arrangement of the cylinder and screw as in claim 2 and the arrangement of the relief vertical cylinder and piston as in claim 3, and the receiving and discharging cylinders, substantially as and for the purposes described and illustrated on the sheets of drawings. (12.) In dividing-machines, the application of the reciprocating movement of pistons in receiving and discharging cylinders to operate the pumps for injecting and communicating the coating material to the walls of the receiving cylinders, substantially as and for the purposes described and illustrated on the sheets of drawings. (13.) In dividing-machines, the application of the movement and pressure received on the face of the receiving-cylinder piston from the inflowing material, and the transmission of that movement and pressure to effect the discharge of the contents of the discharging-cylinder, substantially as and for the purposes described and illustrated on the sheets of drawings. (14.) In dividing-machines, the application of a variable speed-ratio between the screw and the constant of the reciprocating slide, substantially as and for the purposes described and illustrated on the sheets of drawings. (15.) In dividing-machines, the means of operating the screw and changing its speed to any desired ratio to the constant, substantially as and for the purposes described and illustrated on the sheets of drawings. (16.) In dividing-machines, the means of removing the screw in order to allow the use of feeders of different forms and also for cleaning purposes, substantially as and for the purposes described and illustrated on the sheets of drawings. (17.) In dividing-machines, the use of worm feeders instead of screws, substantially as and for the purposes described and illustrated on the sheets of drawings. (18.) In dividing-machines for substances requiring heat the arrangement for heating and maintaining the cylinder at any required temperature, substantially as and for the purposes described and illustrated on the sheets of drawings. (19.) In dividing-machines, for substances that will not admit of pressure when under treatment, the mechanism for making the

pistons alternately suckers and ejectors, substantially as and for the purposes described and illustrated on the sheets of drawings. (20.) In machines such as described, the application of lubricant or coating material to the walls of the cylinders, the face of the pistons and the face of stationary covering slideway at each stroke giving the proper quantity to each individual piece, substantially as and for the purposes described and illustrated on the sheets of drawings. (21.) Improved method of treating bread-doughs by applying a film of coating of suitable substance and quantity at the stage of dividing or "scaling off" to each individual piece divided, substantially as and for the purposes described and illustrated on the sheets of drawings. (22.) In dividing-machines, the combination of the application of lubricant or coating material to the walls and face of pistons of the receiving-cylinder and slide as claimed in claim 14 with the arrangement claimed in claim 4, substantially as and for the purposes described and illustrated on the sheets of drawings. (23.) A dividing-machine for dividing liquid, granular, and plastic substances from bulk, substantially as and for the purposes described and illustrated on the sheets of drawings.

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

No. 16714.—30th July, 1903.—EDWIN JAMES RESTORCK, of Normanby Chambers, Chancery Lane, Melbourne, Victoria, Accountant. An invention for attaching, tightening, and elevating wire to and on iron bedsteads, thereby forming an improved mattress.

Claims.—(1.) A bracket to fit and remain in position on an iron bedstead without the aid of bolt or screw, and rise perpendicularly with, and close to, the posts at the head, but diagonally from the posts at the foot. (2.) For clips associated with said bracket which grip each corner of the bedstead and hold the brackets rigidly in position. (3.) For a hollow tubular roller, with regulating bar—this bar secures a more even tension, and prevents sagging more effectually than a solid cambered bar. (4.) The training-bar and stop-bar for the foot of a mattress. (5.) The casting of the brackets with the castings of the bedstead, thereby forming a combination bedstead and mattress.

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

No. 16848.—25th August, 1903.—WILLIAM HICKS, FRANCIS WILLIAMS, and WILLIAM BARNSDALE, all of Auckland, New Zealand, Fitters. An improved extractor and clarifier combined for the treatment of animal, vegetable, or waste products.*

Claim.—The mode of treatment, in combination with the arranged parts, for the improvement in the extraction and clarifying of substances derived from offal, animal, vegetable, and refuse of any description. The method adopted reduces the time for steaming by an hour at least, and the stewing process now in use is entirely abandoned, the result showing a clearer and better colour, and the offal fat by this treatment will not allow the gelatine to mix with the tallow. The nitrogen and other desired chemical elements are conserved, and 100 per cent. saved in labour, while the residue as a by-product manure is improved 10 per cent. as substantially set forth.

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

No. 17175.—2nd November, 1903.—JAMES PURDIE, of 21, Great King Street, Dunedin, Otago, New Zealand, Aerated-water Manufacturer. An improved wave-motor.*

Claims.—(1.) For the purpose indicated, in combination, a boom pivoted to a support at one end and sustained by a float near the other end, which projects over the sea, a rack projecting upwardly from the outer end of the boom, and mechanism operated by the rack when the float rises and falls, substantially as specified. (2.) For the purpose indicated, in combination, a boom pivoted to a support at one end and sustained by a float near the other end, which projects over the sea, brackets upon the float, and rollers pivoted in the brackets to support the boom, wire ropes attached to the float, tension-springs in the rope, pulleys upon the boom over which the ropes pass, and balance-weights upon the ends of the ropes, substantially as specified. (3.) For the purpose indicated, in combination, a rack having gear-teeth upon both sides, pinions loose upon their shafts and gearing with the rack, pawls pivoted upon the pinions, ratchet wheels secured to the shafts of the pinions, and gear wheels fixed to the said shafts, and a gear wheel fixed to its shaft and engaging with the gear wheels, and a fly-wheel upon the said shaft, substantially as specified. (4.) For the purpose indicated, in combination, a boom pivoted to a support at one end and sustained by a float near the other end, which projects over the sea, a rack projecting upwardly from the outer end of the boom, teeth upon both sides of the rack, pinions loose upon their shafts and gearing with the teeth of the rack, pawls pivoted upon the pinions, and gear wheels fixed to the said shafts, and a gear wheel fixed to its shaft and engaging with the gear wheels, and a fly-wheel upon the said shaft, substantially as specified. (5.) For the purpose indicated, in combination, a boom pivoted to a support at one end and sustained by a float near the other end, which projects over the sea, brackets upon the float, and rollers pivoted in the brackets to support the boom, wire ropes attached to the float, tension-springs in the rope, pulleys upon the boom over which the ropes pass, balance-weights upon the ends of the ropes, a rack projecting upwardly from the outer end of the boom, teeth upon both sides of the rack, pinions loose upon their shafts and gearing with the teeth of the rack, pawls pivoted upon the pinions, and gear wheels fixed to the said shafts, and a gear wheel fixed to its shaft and engaging with the gear wheels, and a fly-wheel upon the said shaft, substantially as specified.

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

No. 17264.—17th November, 1903.—THOMAS EARNSHAW and NORMAN STANLEY PRICHARD, both of Hinds, New Zealand, Grocers. Improved self-acting brake mechanism for carts and the like.*

Claims.—(1.) In self-acting brake mechanism of the kind described, in combination, a rod or rods longitudinally mounted under the pole or shafts of a cart or the like and capable of movement thereon, a transverse rod carrying brake-shoes to which the longitudinal rod or rods is or are connected, a ring upon each longitudinal rod that is attached to the breeching-strap and a contained spiral spring upon the rods that is compressed when the latter are slid backwards and the brake is applied through the operation of the breeching-straps, as specified. (2.) In self-acting brake mechanism of the kind described, means for locking the brake when applied, comprising in combination with the parts claimed in claim 1 levers also mounted upon the shafts, said levers being suitably pivoted and parallel with the longitudinal rods, channelled brackets through which each rod will move, a hole in the brackets which will coincide with holes in the rods as the latter slide in the brackets, a pin upon each of the levers which takes into the brackets, a spiral spring upon the pins and means for operating the levers to cause the pins to pass through the brackets and rods, as described. (3.) In self-acting brake mechanism for carts or the like having shafts, a pair of rods longitudinally mounted on the shafts and capable of movement thereon, said rods being attached at one end to the breeching-straps of the harness, and at the other to a transverse rod carrying the brake-shoes, and a spiral spring around each of the rods that bears against one of the brackets supporting the same, and against which a pin or collar on the rods will press when the breeching-straps are used to slide back the rods, and thereby apply the brake, substantially as specified and shown.

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

No. 17316.—2nd December, 1903.—JOSEPH COOK, of 14, Leeds Street, Wellington, New Zealand, Brass-finisher. A ball valve for operating the valves of water-cisterns.

Claim.—In combination, a valve-body 1 fitted with valve-stem 2 passing through cover 3 on which is fitted spindle 4 cap 5 in which is fitted rubber 6 tube 7 screwed into casing 1.

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

No. 17318.—3rd December, 1903.—RICHARD ERNEST PENNINGTON, of 159, Station Street, Carlton, near Melbourne, Victoria, Engineer. An improved nut-locking spring washer, especially adapted for securing nuts on fish-bolts.

Claims.—(1.) The described nut-locking spring washer consisting essentially of a slightly arched steel plate with a hole through it for the bolt and a tongue as G on one side normally adapted to spring forward so as to project slightly, the whole being constructed, arranged, and operating substantially as and for the purposes specified and as illustrated in the drawings. (2.) The modified nut-locking spring washer formed of a slightly arched steel plate with a hole through it for the passage of the bolt and a tongue on one side adapted

to be wedged or held in its forward position to engage the flats of the nut, substantially as and for the purposes specified and as illustrated in the drawings.

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

No. 17327.—5th December, 1903.—HENRY ALLEN, of Graham's Fern, Dargaville, New Zealand, Engineer's Apprentice. An improved venetian blind.

Claims.—(1.) An improved venetian blind consisting of the parts arranged, combined, and operating substantially as specified and illustrated. (2.) A venetian blind constructed in sections, one suspended from the other, whereby the slats of one section may be operated independently of the slats of the other section, substantially as specified and illustrated. (3.) An improved venetian blind constructed in sections, the lower section being supported by suspending-bands from brackets secured to the bottom slat of the upper section of the blind, the said suspending-bands passing over rollers in the brackets, substantially as specified and illustrated.

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

No. 17350.—10th December, 1903.—WILLIAM HUMBLE, THOMAS STRONG HUMBLE, WILLIAM HENRY HUMBLE, and GEORGE BLAND HUMBLE, of the Vulcan Foundry, Little Malop Street, Geelong, Victoria, Ironfounders (assignees of George William Mitchell McDonald, of Hyams Street, Chilwell, Geelong aforesaid, Carpenter). An improved floor-cramp.

Claims.—(1.) An improved floor-cramp having a sliding rack-bar, a pair of operating pawls mounted in a rocker, and means of clamping said cramp to the joist, substantially as set forth and illustrated. (2.) In a floor-cramp, and in combination, a sliding rack-bar in a groove in the top of the bed-plate, a rocker pivotally mounted on a pair of cheeks, a handle for said rocker, and a pair of pawls pivoted one above and one below the spindle of said rocker, substantially as set forth and illustrated. (3.) In a floor-cramp, an adjustable eccentric lever pivotally mounted in a lateral slotted lug having teeth on its upper surface engaging corresponding teeth on the under-side of a retaining-block held in position by a wing nut, substantially as set forth and illustrated.

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

No. 17376.—15th December, 1903.—GEORGE NELSON, of Clyde Road, Napier, Hawke's Bay, New Zealand, Mechanical Engineer. Improvements in refrigerating machinery.

Extract from Specification.—This invention relates to refrigerating machinery in which anhydrous ammonia, ether, carbon-dioxide, sulphur-dioxide, Pictot's fluid, or similar medium is employed as a refrigerating agent, the medium being first compressed, then condensed into liquid, and finally allowed to evaporate in coils of metal tubes or their equivalent. Between the condenser or vessel in which the condensed medium is contained (commonly known as a "liquid-receiver") and the coil or coils or vessel in which the evaporation of the said liquid medium is effected a valve is employed to regulate the flow of the liquid into the evaporating-coils. To insure economy and effective working the passage of the liquid medium to the evaporating-coils has to be regulated with comparative accuracy, and hitherto this has been done by operating the valve referred to by hand, which has necessitated constant attention. The object of my invention is to automatically regulate the flow of the liquid medium into the evaporating-coils or other form of evaporator, and for this purpose I employ a vessel into which the liquid medium passes on its way to the evaporating-coils and a float within said vessel which actuates a valve whereby the height of the liquid in said vessel is automatically regulated. The float can be adjusted to maintain the level of liquid in the vessel at any desired height. By thus varying the liquid-level the supply of liquid to the coils can be adjusted with much greater delicacy than is attainable by present methods. Means are employed to strain the refrigerating-liquid before it passes through the valve which admits it to the vessel, an oil-trap is used for removing any oil which may separate out from the liquid, and an indicator is used to show the position of the float within the vessel. These being the objects of my invention and the manner in which I carry out the same, the mechanical details of construction may be readily modified by an engineer skilled in the art to adapt them to requirements of any particular refrigerating system.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

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

No. 17399.—18th December, 1903.—NATHANIEL LOMBARD, of 81, Thomas Street, Worcester, Massachusetts, United States of America, Mechanical Engineer. An improved governor for controlling the speed of motors or like powers.

[NOTE.—The following description of the operation of this invention is inserted in place of the claims.]

With the parts in the relation here illustrated power is applied to the pulley 28 to drive the centrifugal mechanism left-handedly at such a rate that, normally, for the desired speed of rotation of the motor the weights are substantially at the centre of their range of movement and the various screws, racks, and the roll 60 will also be at the centre of their path. This condition continues until there is a change in the speed of the motor, as, for example, an increase. This results in the primary support 72 rotating more rapidly, causing the weights to move outwardly upon the secondary support under the increased centrifugal force generated, and their racks, moving by the sleeve 37, rotate it so that it moves down the screw 39. This lowers the valve 57, admitting pressure to the right-hand end of the cylinder (see Figs. 1 and 6, where the movements of the various elements are indicated by arrows). The travel of the rack 48 as a result thereof moves the coacting end of the lever 42 to the left or inwardly about its lower end as a fulcrum, the shaft 55 being for the time stationary and the segment rocking on the worm. This movement of the lever carries the operating-rod 39 to the left, sets the clutch 20, and compels the actuating-shaft to rotate with the driving-shaft 22 right-handedly, turning the shaft 12 in such a direction as to close the gate if, for example, a hydraulic system is being governed. But before the above-mentioned movement of the weights occurs, the secondary support, lagging behind the primary support upon the increase of speed because of its inertia, produces a very quick movement of rotation between the weights and screw 96, the secondary support turning against the tension of the springs 92. This results in a movement of the controlling-rod in the same direction as that secured by an outward travel of the weights, but more promptly, thus effecting an immediate partial correction by the governor which is continued more gradually by the mechanism previously described until the desired movement is attained. If the weights acted alone upon the controlling mechanism they would tend to cause too great a movement or to overcorrect. To obviate this difficulty and check the piston, the pulley 114 is rotated by its spring so that the shaft 111 is moved by the pinion and rack to the left. This rotates the sleeve 108 and causes it to ascend the thread 109 so that the valve-rod as a whole is shortened, this continuing until the valve is restored to its initial position at which the pressure is shut off both ends of the cylinder. To counteract the effect of the power-cylinder upon the clutch to permit the return of the valve to its normal position and the consequent checking of the piston to stop the movement of the gate, a compound movement of translation is automatically imparted to the lever 42 in the following manner: As soon as the actuating-shaft begins its rotation through the connection made by the clutch 20 it also rotates the shaft 55 right-handedly through the gearing 56. This causes the worm to move the lower portion of the lever to the right upon the rack-teeth as a fulcrum, and this being in the opposite direction to the travel of the rack tends to release the clutch. As long as the piston continues its movement the rate of travel of the upper end of the lever will exceed that of the lower end and the clutch will remain in engagement, but as soon as the piston is checked by the return of the valve to its normal position this outward movement of the lever disengages the clutch and the movement of the gate at once ceases until the valve again acts. As the above operations will restore the motor system to its normal speed the weights will return to the position they occupied before the change occurred, and unless their effect upon the valve-rod is neutralised they would move it in the opposite direction and destroy the balance of forces just attained. The mechanism actuated by the roll 119 prevents this. While the weights occupy their normal position the roll will be at the centre of the disc 120 and will remain at rest, but as soon as the shaft moves longitudinally in acting to shorten the valve-rod it carries the roll off the centre to a point having rotary travel. This rotates the roll and the shaft, and the thread of the latter turning in the sleeve 116 moves the shaft to the right until the roll again reaches the axis of the disc, causing the sleeve 108 to be lowered upon the screw 109 and moving the valve downward an amount equal to that which it is moved upward by the return of the weights. It will be evident that the farther the weights depart from the normal the farther the roll will be carried from the centre of the disc and the more rapidly the shaft be rotated, and therefore the neutralising of the return of the weights will be at a rate varying with the extent of their movement and the distance which the shaft has been moved, being at first most rapid, then gradually decreasing as the roll returns to the centre. The neutralising effect will, moreover, be substantially proportional to the rate of return of the weights to the normal.

(Specification, £1 3s.; drawings, 7s.)

No. 17401.—21st December, 1903.—WILLIAM AGGERS, of Auckland, New Zealand, Upholsterer. Improvements in cushioned furniture.

Extract from Specification.—In Fig. 1 the springs A are laid in parallel lines across the seat-frame B and overlaid with the upholstering-material C which is securely fastened at the front edge *b* of the frame and is carried back loosely and bent over the back board b^1 of the frame. Its free end is then secured to the ends of small springs D, the other ends of which are drawn out slightly and are secured upon a fixed rod *d* running across the frame B. Any number of these springs may be employed according to the width of the chair. When a weight is placed on the seat the upholstering will give, pulling upon the springs D, and thus in conjunction with the springs A a soft seat will be obtained. When the weight is removed the springs D will cause the upholstering to resume its normal position again. The same manner of securing the covering may be adopted with the seat-frame shown in Fig. 2, in which the springs A are arranged in radial lines from a central ring A^1, to which their inner ends are secured, while their outer ends are secured to the seat-frame. The means shown in Fig. 3 for obtaining a greater bearing-strain upon the springs A consist of a second frame E, which is of such a size and shape as to fit within the space enclosed by the seat-frame B and is hinged thereto at its front edge so as to be capable of turning out from the frame A or of turning up into it and being held there by any suitable means, such, for instance, as by the strap *e* provided with eyes which fit on to staples secured to the seat-frame A. The hinged frame E is provided with a number of helical springs E^1 secured across it in parallel lines, so that when the frame is drawn up into frame B such springs will bear against the under-surface of the springs A, as shown by dotted lines in the figure. When the springs are thus in engagement the strength of the top row A will be considerably increased, so that a firm seat will be obtained. By thus drawing up the frame E and letting it down the seat may be made to suit persons of different weight or to provide a firm or springy seat at will. In Figs. 4 and 5 the manner of attaching the helical springs to form a cushion on the backs of chairs is shown. The side frames F are shaped in the ordinary way, and the springs are extended across them and secured at each end. For a portion of the distance the front edges of the frames are cut away as at *f* and the ends of the springs extending across that portion are attached to a length of webbing G at each end. The ends of the webbing are connected by means of springs H so as to tend to draw them together against the springs A and thus serve to give increased resiliency to those springs and to allow of the free movement thereof when the springs are overlaid with the ordinary padding and upholstering material. In Fig. 5 the same principle is shown as applied to a settee or arm-chair, the springs at the two sides and back extending horizontally in parallel rows. The side springs have their outer ends secured to the wooden frame J, while their inner ends are secured to strips of webbing K extending down the frame. The back springs have their ends secured to these strips of webbing also, so that an easy and comfortable back is thus obtained.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

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

No. 17403.—23rd December, 1903.—WILLIAM HORACE CRAFAR, of Blenheim, Marlborough, New Zealand, Binder Expert. A whiffletree.

Extract from specification.—The clip C is elongated at the points E so as to allow a bolt or rivet D to pass through them, the same being well clear of the woodwork to allow of a hook or shackle being held by it. From this bolt on rivet D rods or bars B are carried back to point A. At this point a bolt A is passed through the whiffletree or swingletree holding the rods or bars in place. To place the invention in position the clip C is passed over the end of the whiffletree or swingletree, and the bars B are carried back and held in position by the bolt and nut A. The invention may be speedily removed at any time by taking out the bolt A.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

Specification, 1s.; drawing, 1s.

No. 17404.—23rd December, 1903.—JAMES PALMER CAMPBELL, of 15, Featherston Street, Wellington, New Zealand, Solicitor (nominee of the British Westinghouse Electric and Manufacturing Company (Limited), of Westinghouse Building, Norfolk Street, Strand, London, England, Manufacturers). Improvements in electric arc lamps.

Claims.—(1.) For an electric arc lamp a magazine comprising a number of independent compartments or receptacles adapted to contain a supply of electrodes, and means for automatically rotating said magazine so as to bring its several compartments successively into line with the holder to permit of a fresh electrode being automatically projected into the holder when the electrode in use has been consumed by a predetermined amount, substantially as described. (2.) In an electric arc lamp of the kind described, the arrangement for rotating the magazine and successively projecting the electrodes into the holder, substantially as described with reference to Figs. 4 to 6 of the drawings. (3.) In an electric arc lamp of the kind described, the employment of the magnet for controlling the shape and position of the arc as an additional relay for cutting the feeding and regulating mechanism of the lamp into and out of operation, substantially as described. (4.) an electric arc lamp of the kind described, having its circuits and connections arranged and operating substantially as described with reference to Fig. 7 or to Fig. 8 of the drawings. (5.) For an electric arc lamp, a contact device for leading current to and from the electrodes comprising a number of metallic discs or washers located adjacent to and adapted to make contact with the electrode, substantially as described. (6.) An electric arc lamp having its several parts constructed, arranged, and adapted for use, substantially as described and shown in the drawings.

(Specification, 12s. 6d.; drawings, 3s.)

No. 17412.—24th December, 1903.—WILLIAM ROSS and ALEXANDER ROSS, both of Napier, Hawke's Bay, New Zealand, Rope and Twine Manufacturers. A combined flax combing and washing machine.

Claims.—(1.) In flax combing and washing machines, two sets of bars secured horizontally to travelling chains carried on sprocket wheels in a frame, and so arranged that each set of bars shall travel vertically through a portion of its travel, the vertical portion of each set being arranged adjacent to those of the other, tooth projections secured to the outer faces of the bars throughout their length and extending outwards so that those of one set shall overlap those of the other when their vertical portions are adjacent, and means whereby the sprocket wheels may be revolved so as to cause the chains and bars to travel vertically downwards together, substantially as specified. (2.) In flax combing and washing machines, a frame, two sets of sprocket wheels mounted on parallel shafts within the bottom of the frame, and so arranged that the peripheries of one set shall be adjacent to those of the other, similar sets of sprocket wheels of smaller diameter mounted on shafts within the top of the frame and the adjacent peripheries of which are in a vertical line with those of the lower sets, chains encircling the sprocket wheels of the respective sets, bars extending horizontally across between the chains and having their ends secured thereto, tooth projections upon the outer faces of the bars throughout their length, and means whereby the lower sprocket wheels may be revolved so that each set of chains and bars mounted thereon shall be caused to travel round with the sprocket wheels, substantially as specified. (3.) The general arrangement, construction, and combination of parts in our combined flax combing and washing machine, as described and explained, as illustrated in the drawings and for the purposes specified.

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

No. 17413.—24th December, 1903.—CHRISTIEANN THOMSON, of Main Street, Gore, New Zealand, Artiste. Improved process for preparing, colouring, and finishing photographic portraits and the like.

Claims.—(1.) In a method or process for colouring photographs a mode of mounting the print upon a glass surface consisting in attaching said print to the glass by means of a solution of gelatine, the gelatine being prepared and the operation performed in the manner substantially as indicated. (2.) In a method or process of colouring photographic portraits, the mode of finishing said portrait whereby the colours are preserved from chipping off, consisting in painting the coloured portrait when dry with a coat of flake-white, and when this is dry applying a coat of mastic varnish, substantially as indicated. (3.) an improved process for preparing, colouring, and finishing photographic portraits and the like, consisting in the combination of or succession of a series of steps and the employment of the materials substantially specified.

(Specification, 2s. 9d.)

No. 17415.—23rd December, 1903.—HERBERT EDWIN CREASE, of Karangahake, Auckland, New Zealand, Chemist and Druggist. Improvements in tooth-brushes and other brushware, more particularly nail and small brushes.

Claims.—(1.) In brushware as specified, the dividing thereof into two parts and hinging or loosely riveting the one to the other so that the part carrying the hair or bristle can be folded into the handle-case part suitably shaped to receive it for the purpose set forth, substantially as described and illustrated. (2.) In combination, the hair or bristle part of the brush hinged or loosely riveted to the handle-case part and adapted to be turned over and folded thereinto, with bottom of case tempered to form spring for the purpose set forth, substantially as described and illustrated.

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

No. 17419.—29th December, 1903.—THE FLAMELESS GAS-LIGHT COMPANY (LIMITED), of 32, Great St. Helen's, London, England (assignees of William Hooker, of 210, Portland Road, South Norwood, London, aforesaid, Gas Engineer). Improvements in generating combustible vapour and in regulating the supply thereof.

Claims.—(1.) The method of generating a combustible vapour, consisting in withdrawing the exhaust air from a hot-air engine by a blower or like apparatus driven by the latter, the said air being forced by the blower through a carburetter, substantially as described. (2.) In apparatus for generating and controlling the supply of combustible vapour, the combination of a hot-air engine, a blower driven by the said engine and withdrawing the exhaust air therefrom, a storage vessel or holder and a carburetter through which the air is passed for carburation, substantially as described. (3.) In apparatus for generating and controlling the supply of combustible vapour, the combination of a hot air engine, a blower driven thereby and which withdraws the exhaust air from the said engine, a carburetter which receives the air from the blower, and a holder for storing the carburetted vapour, the said holder automatically controlling a cock in the supply-pipe, substantially as described. (4.) In apparatus for generating and controlling the supply of combustible vapour, the combination of a hot-air engine, a blower driven thereby and which withdraws the exhaust air from the said engine, a carburetter which receives the air from the blower, a holder for receiving the carburetted air and a branch pipe from the blower for supplying air for heating the carburetter, substantially as described. (5.) In apparatus for generating and controlling the supply of combustible vapour, the combination of a hot-air engine, a blower driven thereby and which withdraws the exhaust air from the engine, a carburetter which receives the air from the blower, a holder in which the carburetted air is stored and which supplies vapour to the burners and to a burner for heating the hot-air engine, and of cocks in the supply-pipes to the holder and to the engine burner, the said cocks being controlled by the sliding-bell of the holder, substantially as and for the purpose described. (6.) The improved apparatus for generating and storing combustible vapour, consisting of the parts constructed, arranged, and operating substantially as described and illustrated in the drawing.

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

No. 17420.—29th December, 1903.—GEORGE HENRY DUNLOP, of 17, Dundas Place, South Melbourne, Victoria, Civil Engineer. Improved method and machinery for excavating, dredging, and transporting earth and other materials.

Extract from Specification.—This invention relates to an improved method and machinery for excavating, dredging, and transporting earth and other materials with a scoop or scraper (hereinafter called a "scoop") operated from a main power-station and from an outhaul-station by ropes hauled so that the earth and other materials may be filled into it, transported in it, and deposited from it. In this specification the term "forward" indicates that direction in which the scoop is drawn when it is being filled, and the term "backward" indicates the contrary direction; by "setting up" is meant the operation which is the reverse of overturning. The scoop is drawn forward at suitable varying angle of tilt until it is filled, is drawn away backward or forward to the place where its contents are to be deposited, is overturned forward or backward for depositing its contents, and is set up and drawn away to the place where it is to be filled again, all by means of the ropes. Preferably, three ropes are employed, but one of these ropes may not be required, and the scoop may be operated by two of the ropes under certain conditions. The scoop is a receptacle having a closed bottom, back, and sides, and open front and top, though sometimes the top also may be partly or entirely closed. Of the ropes employed to operate the scoop, one is connected at the front near the cutting-edge (this I name the "main hauling-rope") and two are connected at the upper part of the scoop (these I name the "forward-hauling rope" and the "backward-hauling rope"). The main hauling-rope and the forward-hauling rope pass forward from the scoop to the drums of winding machinery, or to guide-pulleys leading to them, placed beyond the extreme forward limit of travel of the scoop; the backward-hauling rope passes backward from the scoop to the drum of winding machinery, or to a guide-pulley leading to it, placed beyond the extreme backward limit of travel of the scoop. The ropes may be connected to the scoop by chains or bars or by bridles or bails such as are used with animal-drawn scoops, or with the buckets of steam excavating-shovels, or the like, of usual construction. The three ropes are operated from a main power-station and from an outhaul-station. These stations are combined in one structure or are in two separate structures, according to the nature of the work. Usually the winding machinery for operating the ropes is all placed on the main power-station, and there is a guide-pulley and no winding machinery on the outhaul-station; but there may be winding machinery on each station—as for example, on the main power-station for the main hauling-rope and for the forward-hauling rope, and on the outhaul-station for the backward-hauling rope. In order that the machinery employed in this method may be most effective, the main hauling-rope is connected to the scoop low down, so that the power is applied as directly as practicable to the cutting-edge of the scoop, and the forward-hauling rope and the backward-hauling rope are connected to the scoop so high above the bottom that their effect when the scoop is in its normal position for filling or when filled will be mainly or entirely to tilt the scoop, and not to draw it along. An arm on the scoop, while not essential, is convenient in this respect. The method and machinery will now be described and illustrated as far as necessary in the drawings as used for excavating a channel in earth. (If necessary the earth may be loosened, as by ploughing.) It is assumed that the main power-station is fitted with mechanism by which the winding-drums can be rotated, and that the stations can be moved alongside of the channel as the work progresses.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

(Specification, £1 5s.; drawings, 3s.)

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

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

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

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

F. WALDEGRAVE,
Registrar.

Provisional Specifications.

Patent Office,
Wellington, 20th January, 1904.

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

No. 17364.—9th December, 1903.—MICHAEL MCCARTHY, of Miller's Flat, Otago, New Zealand, Farmer. Composition for poisoning rabbits.

No. 17383.—17th December, 1903.—ALBERT SENOR CORONEL, of 87, York Street, Sydney, New South Wales, Merchant, as assignee of Robert Bright Wells, of Percy Street, Wellington, New South Wales, Carpenter and Builder. Improvements in window furniture for holding and suspending sliding sashes.

No. 17384.—17th December, 1903.—EDWIN ADAMS, of Wellington, New Zealand, Bootmaker. An improved boot.

No. 17385.—17th December, 1903.—DONALD WILLIAM BODLE, of Alfriston, Manurewa, New Zealand, Farmer. Improvements in ball castors.

No. 17391.—16th December, 1903.—LAWRENCE JOHN BARNES, of Scotia Place, off Queen Street, Auckland, New Zealand. An improved means of fastening horse-shoes.

No. 17392.—16th December, 1903.—LAWRENCE JOHN BARNES, of Scotia Place, off Queen Street, Auckland, New Zealand, Machinist. An improved means of fastening horse-shoes.

No. 17395.—17th December, 1903.—JAMES GREENHILL, of Roslyn, Dunedin, New Zealand, Builder. Cramp for wall-lining, lumber, and the like.

No. 17402. — 22nd December, 1903. — JOHN ROBERT SKINNER, of 238, Colombo Street, Christchurch, Canterbury, New Zealand, Bootmaker. Improvements in and relating to cushion heels for boots, shoes and the like.

No. 17406.—23rd December, 1903.—SAMUEL DENNISTON, of Avenal, near Invercargill, New Zealand, Plumber. Improved apparatus for dipping sheep.

No. 17407. — 23rd December, 1903. — ARTHUR JAMES NICHOLAS, of Colac Bay, Wallace, New Zealand, Accountant. Improved automatically indicating target.

No. 17409.—24th December, 1903.—LEONARD BROWNLOW HORROCKS, of New Plymouth, New Zealand, Settler. Improved means for preventing the rattling of window-sashes.

No. 17410. — 24th December, 1903. — THOMAS HORBY BROWN, of Wellington, New Zealand, Company's Manager. An improved bridle.

No. 17411.—24th December, 1903.—EDWARD JONES, of Wellington, New Zealand, Traction-engine Owner. An improved elevator for stacking hay and for other analogous purposes.

No. 17416.—23rd December, 1903.—JOSEPH JAMES MACKY, of Auckland, New Zealand, Legal Manager. Improvements in door-handle fastenings.

No. 17417. — 23rd December, 1903. — JOSEPH HENRY NOONAN, of Hobson Street, Auckland, New Zealand, Dealer, and TIMOTHY BEEHANE O'CONNOR, of Victoria Street, Auckland aforesaid, Publican. An improved billiard-rest.

No. 17421. — 29th December, 1903. — HENRY JENKINS, Builder, and DAVID DUNCAN, Traveller, both of Eltham, New Zealand. An ointment for the treatment of cuts, wounds, and skin affections in human beings and animals.

No. 17422.—30th December, 1903.—HANS SCHNITZER, of 8, Pfarr Gasse, Dresden, Saxony, German Empire, Gentleman. Improvements in methods of and apparatus for warming food and other material.

No. 17425.—30th December, 1903.—MONTAGUE MOORE, of 408, Collins Street, Melbourne, Victoria, Mining Agent, and THOMAS JAMES HESKETT, of 86, Donald Street, Brunswick, Victoria, Engineer. Improvements in apparatus for treating ferruginous ore for the manufacture of iron and steel therefrom.

No. 17429.—4th January, 1904.—WILLIAM REEVES, of Hall Street, Masterton, Wellington, New Zealand, Coachbuilder. An improved tobacco-cutter.

No. 17430.—5th January, 1904.—FRANCIS TEMPLE PAGE, of Dannevirke, New Zealand, Gentleman. An improved attachment to fishing-rods.

No. 17431. — 5th January, 1904. — JEREMIAH MATTHEW TWOMEY, of Temuka, Canterbury, New Zealand, Newspaper Proprietor and General Printer. An improved newspaper-folding apparatus capable of being attached to Wharfdale and other printing machines.

No. 17432.—6th January, 1904.—FREDERICK GEORGE RICKARD, of Riverside, Ashburton, Canterbury, New Zealand, Carpenter and Builder. Improved pump-arrangement for inflating pneumatic tires of bicycles.

No. 17434.—5th January, 1904.—FREDERICK STEPHEN PARKER, of Knole House, Sommerfield Street, Spreydon, New Zealand, Commercial Traveller. Hot-water shower.

No. 17435.—5th January, 1904.—THOMAS DANKS, of Lichfield Street, Christchurch, New Zealand, Engineer. Improvements in machinery for sinking artesian wells.

No. 17436.—5th January, 1904.—ASA WHITNEY, of Melbourne Club, Melbourne, Victoria, Captain M.N. and Engineer, and of Auckland, New Zealand. An improved tap for taking water, oils, or other fluids from a tank or any other kind of receptacle for holding liquids.

No. 17439.—7th January, 1904.—ALEXANDER WILLIAMSON DOBBIE, JAMES EDWARD MOLLOY MORLEY, ALEXANDER HERBERT DOBBIE, and HECTOR JOHN DOBBIE, all of Gawler Place, Adelaide, South Australia, Manufacturers and Importers (assignees of John Dunstone, of Peterhead, South Australia, Clerk). A bird or other animal scarer.

No. 17440.—7th January, 1904.—CHARLES ROBERTSON, of 96, Russell Street, Dunedin, New Zealand, Carpenter. Improvements in laundry apparatus.

No. 17441.—7th January, 1904.—ARNE GOSTARGE PARRY, of Manchester Street, Christchurch, Canterbury, New Zealand, Garment-designer. Improved apparatus for sifting cinders, meal, flour, and other substances.

No. 17442.—7th January, 1904.—W. P. DALY, of Greymouth, New Zealand. Improved adjusting bolsters.

No. 17443.—4th January, 1904.—ROBERT LYALL CHRISTIE, of Gore, New Zealand, Blacksmith. An improved gold-saving apparatus.

No. 17444.—5th January, 1904.—GEORGE FRANCIS MOYLE, of Dunedin, New Zealand, Carpenter and Joiner. Device for turning leaves of music-pieces, and the like.

No. 17446.—9th January, 1904.—THOMAS FIRTH, of 7, Martin Street, Wellington, New Zealand, Labourer. Combined vehicle-wheels and horse-stopper.

No. 17447.—9th January, 1904.—ADOLPHUS JAMES PARK, of Ngaruawahia, Auckland, New Zealand, Mechanical Engineer. Improved means for suspending and operating window-sashes.

No. 17450.—11th January, 1904.—JOHN RAMSAY, of Invercargill, Southland, New Zealand, Builder. An improved hair-pin.

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

[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.]

F. WALDEGRAVE,
Registrar.

Letters Patent sealed.

LIST of Letters Patent sealed from the 7th January, 1904, to the 20th January, 1904, inclusive :—

No. 15474.—J. Paterson and A. J. Pool, draining apparatus for clothes-wringer.
No. 15481.—R. Tudehope and B. Crawford, ventilator.
No. 15538.—W. J. Botting, blight-destroying composition.
No. 15550.—P. F. A. and J. Robertson, seed-sower.
No. 15811.—J. Ellis, securing horse-rugs.
No. 16649.—J. Bates, stove.
No. 16796.—H. Davidson, P. J. Causer, and P. B. Richards, wire-strainer.
No. 16828.—P. Diehl and M. Hemleb, rotary take-up for sewing-machine.
No. 16836.—A. Huck and L. Fischer, photographic support.
No. 16837.—G. Moore, filter.
No. 16885.—W. A. Shields, clamp for securing droppers. (F. Yott.)
No. 16886.—A. Menesdorffer, manufacture of coriaceous material.
No. 16887.—A. L. Schram, cover for fruit-jar.
No. 16892.—E. Shaw, Vending-machine.
No. 16926.—A. J. Hunter, siphon for septic tank.
No. 16947.—N. D. Willis, device to deflect wind-pressure on cycles.
No. 16988.—G. G. Turri, ore-roasting furnace. (T. Edwards.)
No. 17003—W. E. Oakley, electric rail bond.

F. WALDEGRAVE,
Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 12287.—Renboys Syndicate, Limited, branding wool bales, &c. (G. Renner, W. H. Boyens.) 8th January, 1904.
No. 12288.—F. H. Wrigley, lifting jack. 7th January, 1904.
No. 12304.—The Schmidt Steam-power Parent Company, Limited, drying superheating wet steam. (W. Schmidt.) 6th January, 1904.
No. 12305.—The Schmidt Steam-power Parent Company, Limited, regulating superheated steam in compound engines. (W. Schmidt.) 6th January, 1904.
No. 12306.—The Schmidt Steam-power Parent Company, Limited, compound engine. (W. Schmidt.) 6th January, 1904.
No. 12314.—L. C. Nielsen and P. V. F. Petersen, foam removing apparatus for heating liquids. 18th January, 1904.
No. 12323.—A. Skillicorn, wool-press. 16th January, 1904.

THIRD-TERM FEES.

Nil.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent abandoned.

LIST of applications for Letters Patent, with which provisional specifications only have been filed, abandoned (*i.e.*, complete specifications not lodged) from the 7th January to the 20th January, 1904, inclusive :—

No. 16072.—W. Campbell, preventing horse running away.
No. 16078.—A. G. Barton, trouser press and stretcher.
No. 16079.—H. F. Nelson, supporting clothes-lines.
No. 16080.—C. D. Hamilton, music-leaf turner.
No. 16085.—A. McLeod, marking-stamp.
No. 16086.—J. D. Regan, match.
No. 16087.—J. Coop, bridle-bit.

No. 16090.—J. Stewart, spreading polish on floor.
No. 16091.—R. Williams, wire-strainer.
No. 16092.—R. Potter, bottle-neck shape.
No. 16093.—W. H. Stebbing and J. H. Colwill, roller or platen for typewriters.
No. 16094.—S. F. Clare, rabbit-trap.
No. 16096.—R. W. S. Ashcroft and W. J. Maddren, preserving eggs.
No. 16097.—A. Reid, smelting ironsand.
No. 16101.—H. Brown, crane.
No. 16103.—D. R. S. Galbraith, distillery apparatus.
No. 16104.—E. Spragg, perforating attachment to sewing-machine.
No. 16105.—J. and E. H. Friend, steam turbine-motor.
No. 16109.—J. Hartnett and D. M. Robinson, milking apparatus.
No. 16110.—J. Ryan, ear-marking appliance.
No. 16111.—P. E. Southward, candle-guard.
No. 16120.—J. Dignan, castrating, docking, &c., lambs.

F. WALDEGRAVE,
Registrar.

Application for Letters Patent void.

APPLICATION for Letters Patent, with which complete specification has been lodged, void owing to non-acceptance of such specification from the 7th January to the 20th January, 1904, inclusive:—

No. 15505.—D. Matheson and D. Taylor, animal-trap.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent lapsed.

LIST of applications lapsed owing to Letters Patent not being sealed, from 7th January to the 20th January, 1904, inclusive:—

No. 15113.—J. F. Rose, protecting banks of rivers.
No. 15146.—S. Barningham, E. T. O'Connell, and T. McCormack, fire-escape.

F. WALDEGRAVE,
Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of renewal fees from the 7th January to the 20th January, 1904, inclusive:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 12075.—H. Strawbridge, codlin-moth and blight destroyer.
No. 12077.—E. H. Chainey and S. Salek, cigarette-case. (C. Legge.)
No. 12080.—A. C. Palmer, tire-remover.
No. 12081.—J. Campbell and L. R. Davis, reflector light for piano, &c.
No. 12082.—W. M. Ashton, sheep-holding device.
No. 12083.—W. N. E. Mason and J. Wright, jug.
No. 12084.—J. J. Joyce, printing block.
No. 12085.—H. Roberts, window-sash.
No. 12086.—J. Mactear, obtaining cyanogen compounds.
No. 12089.—D. Buchanan, potato-digger.
No. 12090.—D. Dooling, hand grubber.
No. 12091.—E. Burton and R. B. Echlin, ticket printing and issuing machine.
No. 12094.—E. Bartley, angle stud.
No. 12099.—W. L. Page and G. P. Mollison, cofferdam dredge.
No. 12101.—N. Z. Loan and Mercantile Agency Co., Limited, seed-feeder for drill. (J. W. Stonyer.)
No. 12110.—J. Ward, gold-dredging bucket.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

No. 8938.—H. W. T. Doggett, J. McChesney, and T. J. Dignan, preventing horse running away.
No. 8946.—J. D. Wigglesworth, F. C. Binns, A. Martin, and F. J. Denton, producing embossed photographs.

F. WALDEGRAVE,
Registrar.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, January, 1904.

APPLICATIONS for registration of the following trade marks have been received. Notice of opposition to the registration of any of these applications may be lodged at this office within two months of the date of this *Gazette*. Such notice must be in duplicate, and accompanied by a fee of £1.

No. of application: 4462.
Date: 2nd December, 1903.

TRADE MARK.

The applicant claims that the said trade mark has been in use by him in respect of the articles mentioned from the year 1888.

NAME.

ISAAC BROWN, of Hokitika, New Zealand, Bicycle-maker.

No. of class: 22.
Description of goods: Bicycles.

No. of application: 4487.
Date: 21st December, 1903.

TRADE MARK.

The words

WEE MACGREEGOR.

NAME.

JOSEPH HATTON, trading under the style or firm of "Joseph Hatton and Co.," of David Street, Caversham, Dunedin, New Zealand.

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

No. of application: 4492.
Date: 29th December, 1903.

TRADE MARK.

"THE JASON."

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

NAME.

WOODING AND TEASDALE, of 122, Church Gate, Leicester, in the County of Leicester, England, Manufacturers.

No. of class: 38.
Description of goods: Articles of clothing.

No. of application: 4495.
Date: 29th December, 1903.

TRADE MARK.

The word

ANTIPHLOGISTINE

NAME.

THE DENVER CHEMICAL MANUFACTURING COMPANY, a company incorporated in the United States of America, having its head office at 57, Laight Street, New York, and also an office at 110, Cheapside, London, E.C., England.

No. of class: 3.

Description of goods: A composite substance, usable as a surgical dressing and for other medicinal purposes.

No. of application: 4497.
Date: 30th December, 1903.

TRADE MARK.

(A SWELL AFFAIR)

The essential particulars of this trade mark are the device and the words "A Swell Affair"; and any right to the exclusive use of the added matter is disclaimed.

NAME.

C. S. DENT AND CO., of 3, Farringdon Avenue, London, England, Manufacturers.

No. of class: 3.

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

No. of application: 4499.
Date: 5th January, 1904.

TRADE MARK.

The words

GOLDEN DRIFT.

NAME.

H. PRICE AND CO., LIMITED, of Victoria Street, Wellington, New Zealand, Merchants.

No. of class: 42.

Description of goods: Tea.

No. of application: 4500.
Date: 5th January, 1904.

TRADE MARK.

The word

KOLAMBO.

NAME.

H. PRICE AND CO., LIMITED, of Victoria Street, Wellington, New Zealand, Merchants.

No. of class: 42.

Description of goods: Tea.

No. of application: 4501.
Date: 5th January, 1904.

TRADE MARK.

The word

LANKAWATTE.

NAME.

H. PRICE AND CO., LIMITED, of Victoria Street, Wellington, New Zealand, Merchants.

No. of class: 42.

Description of goods: Tea.

No. of application: 4502.
Date: 5th January, 1904.

TRADE MARK.

The word

SARINGA.

NAME.

H. PRICE AND CO., LIMITED, of Victoria Street, Wellington, New Zealand, Merchants.

No. of class: 42.

Description of goods: Tea.

No. of application: 4503.
Date: 7th January, 1904.

TRADE MARK.

The applicant claims that the said trade mark has been in use by him and predecessors in business in respect of the articles mentioned from July, 1887.

NAME.

ARTHUR WALTER MIDGLEY, trading as S. T. Midgley and Sons, of Crown Works, Harehills Lane, Leeds, in the County of York, England, Boot and Shoe Manufacturer.

No. of class: 38.

Description of goods: Boots, shoes, and slippers.

No. of application: 4504

Date: 7th January, 1904.

TRADE MARK.

The word

CEDAR.

NAME.

LEVER BROTHERS, LIMITED, of Balmain, near Sydney, State of New South Wales, Commonwealth of Australia, Manufacturers.

No. of class: 47.

Description of goods: Common or laundry soap, soap or washing powders, candles, matches, starch, blue, washing-soda, detergents, oils for illuminating, heating, or lubricating purposes, and other preparations for laundry purposes.

No. of application: 4505.

Date: 7th January, 1904.

TRADE MARK.

The word

CEDAR.

NAME.

LEVER BROTHERS, LIMITED, of Balmain, near Sydney, State of New South Wales, Commonwealth of Australia, Manufacturers.

No. of class: 48.

Description of goods: Perfumed soap, perfumery, and glycerine for toilet purposes.

No. of application: 4506.

Date: 7th January, 1904.

TRADE MARK.

The word

CREST.

NAME.

LEVER BROTHERS, LIMITED, of Balmain, near Sydney, State of New South Wales, Commonwealth of Australia, Manufacturers.

No. of class: 47.

Description of goods: Common or laundry soap, soap or washing powders, candles, matches, starch, blue, washing-soda, detergents, oils for illuminating, heating, or lubricating purposes, and other preparations for laundry purposes.

No. of application: 4507.

Date: 7th January, 1904.

TRADE MARK.

The word

CREST.

NAME.

LEVER BROTHERS, LIMITED, of Balmain, near Sydney, State of New South Wales, Commonwealth of Australia, Manufacturers.

No. of class: 48.

Description of goods: Perfumed soap, perfumery, and glycerine for toilet purposes.

No. of application: 4508.

Date: 9th January, 1904.

TRADE MARK.

The essential particulars of this trade mark are the figure of a Quaker holding a cup of tea, above which is the word "Quaker"; and any right to the exclusive use of the added written matter is disclaimed.

NAME.

ROWLAND VALENTINE WEBSTER, trading under the style of "Co-operative Tea Gardens Company, of Colombo, Ceylon."

No. of class: 42.

Description of goods: Tea.

No. of application: 4510.

Date: 9th January, 1904.

TRADE MARK.

The words

"MOSS ROSE."

NAME.

EDWIN GROVE, of Palmerston North, in the Colony of New Zealand, Grocer.

No. of class: 42.

Description of goods: Butter.

No. of application: 4511.
Date: 12th January, 1904.

TRADE MARK.

The word

CAMP

NAME.

R. PATERSON AND SONS, of 77, Charlotte Street, Glasgow, Scotland, Manufacturers.

No. of class: 42.

Description of goods: Essence of coffee with chicory.

No. of application: 4513.
Date: 13th January, 1904.

TRADE MARK.

GLYCO-THYMOLINE

NAME.

KRESS AND OWEN COMPANY, a corporation organized and existing under the laws of the State of New York, and having its principal office in the Borough of Manhattan City and State of New York, United States of America.

No. of class: 3.

Description of goods: Medicinal remedies.

No. of application: 4517.
Date: 13th January, 1904.

TRADE MARK.

The words

GOLDEN EAGLE.

NAME.

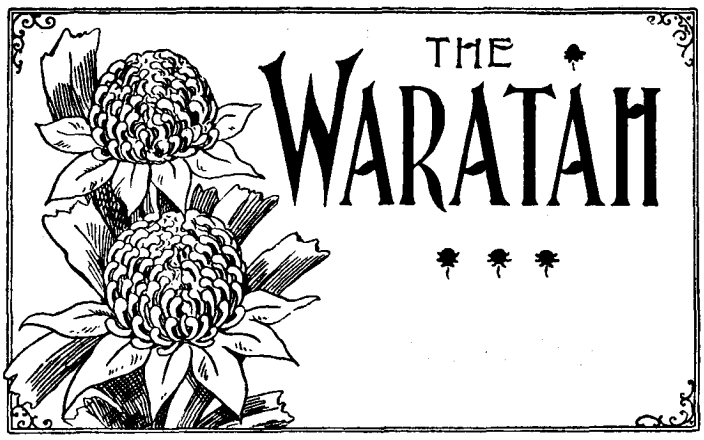
HENRY ATKINS, of "Cape Times" Buildings, Cape Town, Cape Colony, Importer.

No. of class: 42.

Description of goods: Substances used as food or as ingredients in food.

No. of application: 4518.
Date: 15th January, 1904.

TRADE MARK.



NAME.

ROBERT HURST, of 2, Grant Street, North Fitzroy, Melbourne, Victoria, Boot-manufacturer.

No. of class: 38.

Description of goods: Boots and shoes.

No. of application: 4519.
Date: 16th January, 1904.

TRADE MARK.

NAME.

SARGOOD, SON, AND EWEN, New Zealand, Warehousemen.

No. of class: 38.
Description of goods: Hats.

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 7th to the 20th January, 1904, inclusive:—

No. 3469; 4371.—A. Solari. Class 42. (*Gazette* No. 84, of the 29th October, 1903.)

No. 3470; 4428.—J. Taylor. Class 38. (*Gazette* No. 84, of the 29th October, 1903.)

No. 3471; 4320.—Vacuum Oil Company. Class 47. (*Gazette* No. 66, of the 20th August, 1903.)

No. 3472; 4321.—Vacuum Oil Company. Class 47. (*Gazette* No. 66, of the 20th August, 1903.)

No. 3473; 4406.—J. Buchanan. Class 43. (*Gazette* No. 84, of the 29th October, 1903.)

No. 3474; 4411.—J. Ferguson and Co. Class 43. (*Gazette* No. 84, of the 29th October, 1903.)

No. 3475; 4420.—Welsbach Light Company of Australasia, Limited. Class 18. (*Gazette* No. 84, of the 29th October, 1903.)

No. 3476; 4425.—J. R. Patterson. Class 42. (*Gazette* No. 84, of the 29th October, 1903.)

F. WALDEGRAVE,
Registrar.

Trade Mark Renewal Fees paid.

FEES paid for the renewal of the registration of the undermentioned trade marks—(1) for fourteen years from the 1st January, 1904; (2) for fourteen years from the date first mentioned:—

(1) No. 83/4870.—J. Neil, of Dunedin, New Zealand. (Two trade marks.) 7th and 24th December, 1903.

No. 84/3340.—Kirker, Greer, and Co., Limited, of Sydney, New South Wales. (Two trade marks.) 30th October, 1903.

(2) Nos. 1-1, 2-2, 3-3, 4-4.—21st January, 1890.—R. Hornsby and Sons, Limited, of Grantham, England. 13th January, 1904.

Nos. 9-8, 10-11.—4th March, 1890.—P. G. Dixon and Co., of Melbourne, Victoria. 13th Jannary, 1904.

F. WALDEGRAVE,
Registrar.

Subsequent Proprietors of Trade Marks registered.

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

NO. 79/1406, 82/2472, 86/286, 89/323, 5/5, 46/34, 1056/881, 1057/882, 1058/883, 2069/1663, 2066/1690, 2912/2281, 2897/2322, 3445/2707.—British-American Tobacco Company, Limited, whose registered office is situate at Cecil Chambers, 86, Strand, London, England. [The American Tobacco Company.] 5th January, 1904.

No. 82/5234, 84/4158.—Sharland and Co., Limited, of Willeston Street, Wellington, New Zealand, and elsewhere, Wholesale and Manufacturing Druggists. [J. C. Sharland and Co.] 6th January, 1904.

No. 83/186.—Ansar Harford and Co., Limited, of 210, High Holburn, London, England, Cod Liver Oil Merchants. [Ansar Harford and Co.] 5th January, 1904.

No. 370/299.—Thomas Bell, of Auckland, in the Provincial District of Auckland, in New Zealand, Merchant. [Wildman and Lyell.] 6th January, 1904.

No. 1113/884.—John Alexander Rankin, James Henry Rankin, and Robert William Hammond Rankin, all of Motueka, Nelson, New Zealand, trading as "Rankin and Sons." [F. W. Thorp.] 3rd November, 1903.

No. 1835/1459.—T. C. Williams Company, of Richmond, Virginia, United States of America. [W. M. Bannatyne and Co., Limited.] 13th January, 1904.

F. WALDEGRAVE,
Registrar.

Request for Correction of Clerical Error in Trade-mark Application allowed.

THE request for correction of clerical error in application for trade mark of Waldberg and Co., Limited, No. 4040, advertised in Supplement to *New Zealand Gazette* No. 91, of the 26th November, 1903, has been allowed.

F. WALDEGRAVE,
Registrar.

Request to amend Statement of Goods in Trade-mark Application allowed.

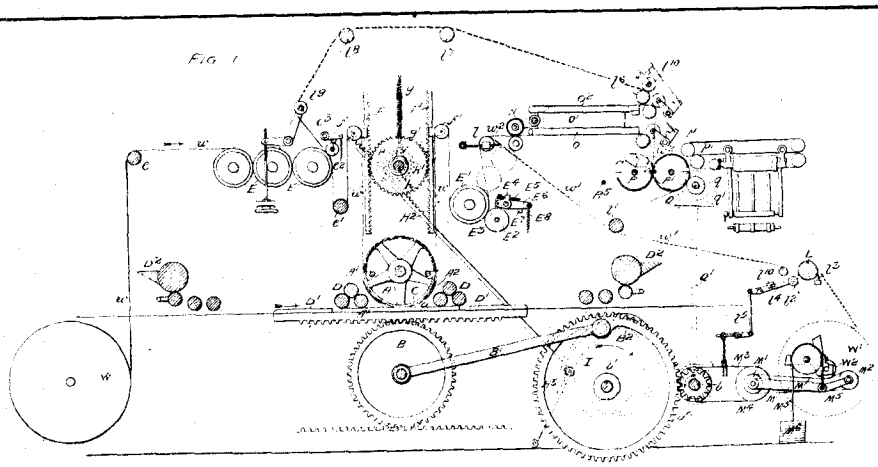
THE request to amend statement of goods in H. Molls' application for trade mark No. 4202, advertised in Supplement to *New Zealand Gazette* No. 84, of the 29th October, 1903, has been allowed.

F. WALDEGRAVE,
Registrar.

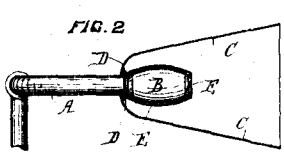
BY AUTHORITY: JOHN MACKAY, GOVERNMENT PRINTER.

ILLUSTRATIONS OF INVENTIONS.

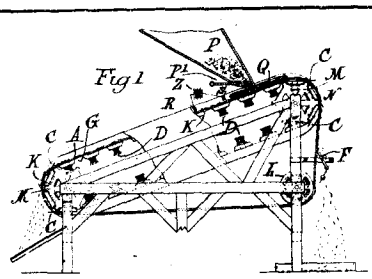
[These illustrations refer to the complete specifications accepted, and advertised in this *Gazette*.]



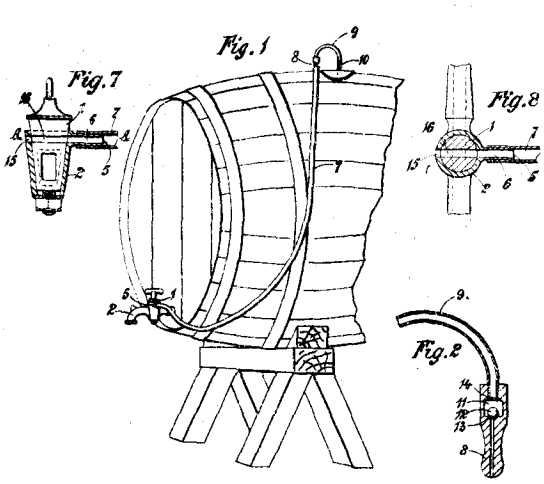
15575
Cossar. Printing-machine.



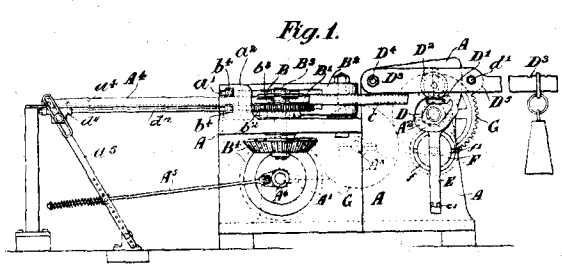
15028
Saxton. Cycling-gauntlet.



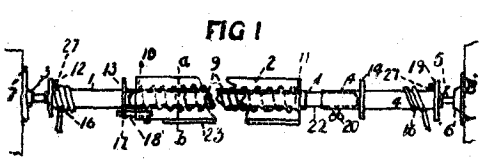
16106
McKnight. Electro-magnetic Separator.



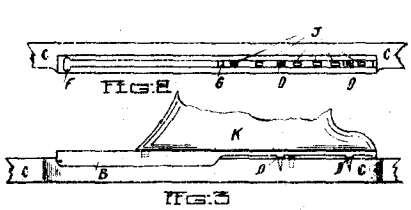
16037
McLean and Ellis. Draw-off Tap.



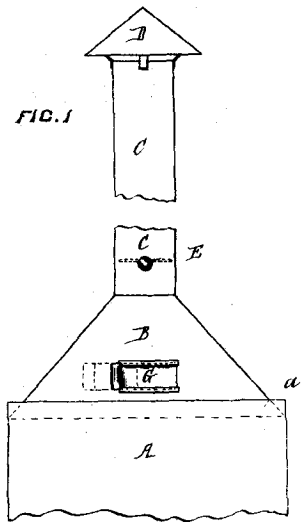
16029
Dickson. Horse-shoe Manufacturing-machine.



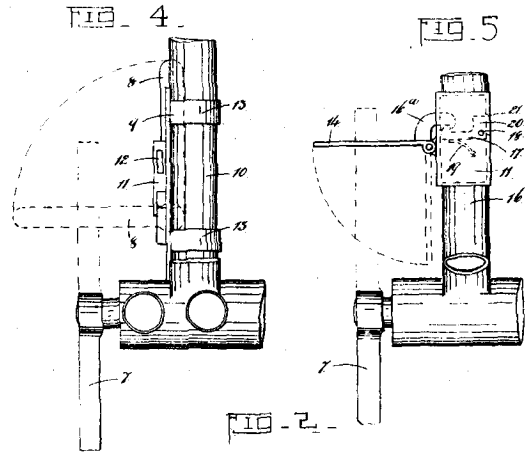
15922
Lockerbie. Sash and Door Hanger.



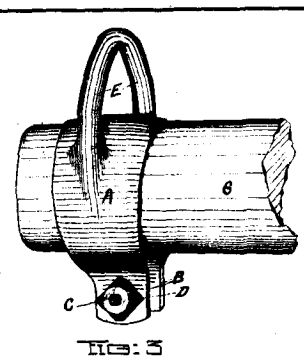
16051
Atkin. Gig-seat.



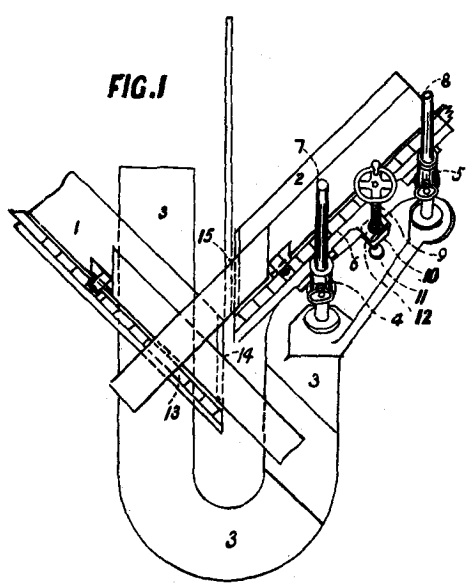
16126
Gattsche. Boiler-pan.



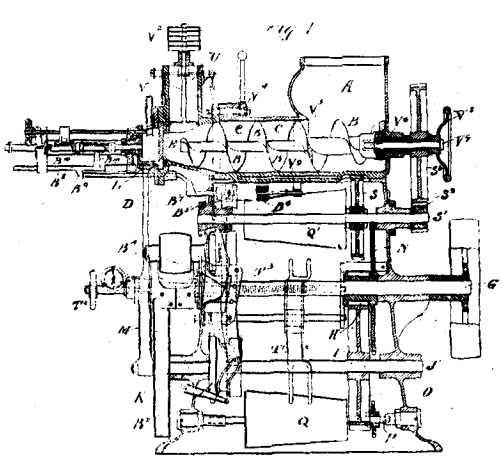
16186
Congreve. Bicycle-lock.



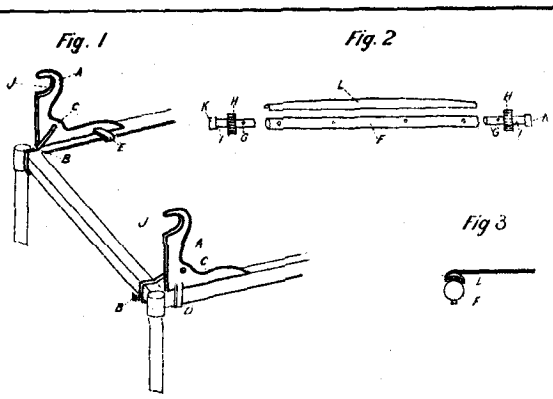
16146
Wilson. Swingle-tree Iron.



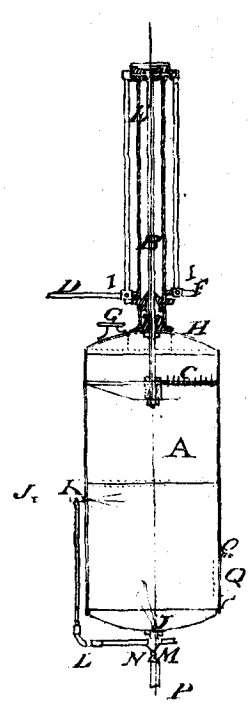
16306
Scurr. Mitre-cutter. (Wales.)



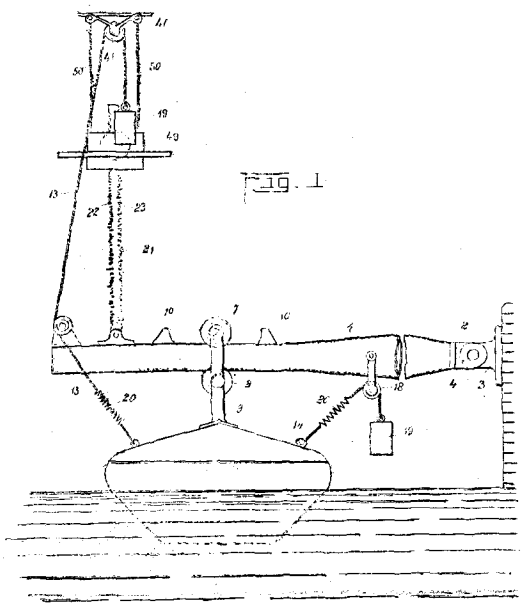
16442
Thomson. Dividing-machine.



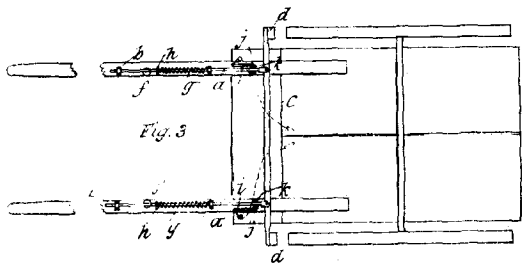
16714
Restorck. Mattress.



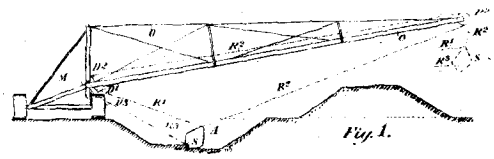
16848
Hicks, Williams, and Barnsdale.
Extractor and Clarifier.



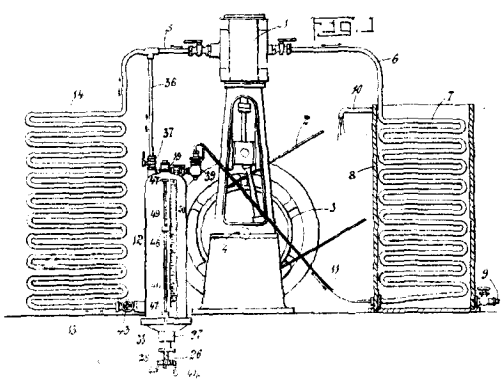
17175
Purdie. Wave Motor.



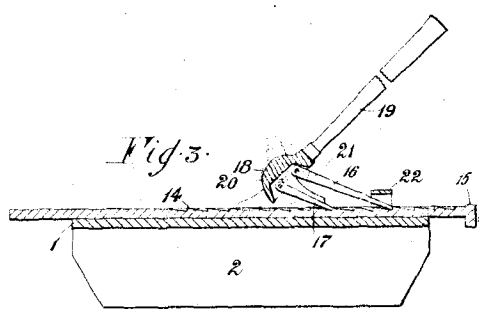
17264
Earnshaw and Prichard. Cart-brake.



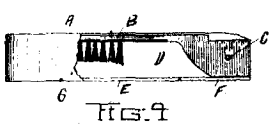
17420
Dunlop. Dredging Machinery.



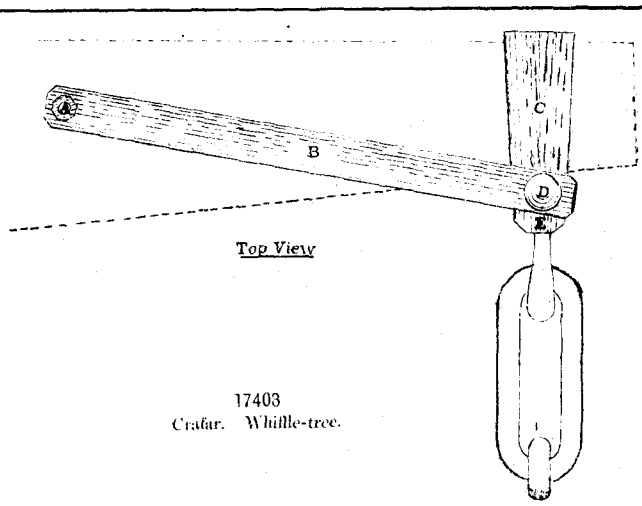
17376
Nelson. Refrigerating Machinery.



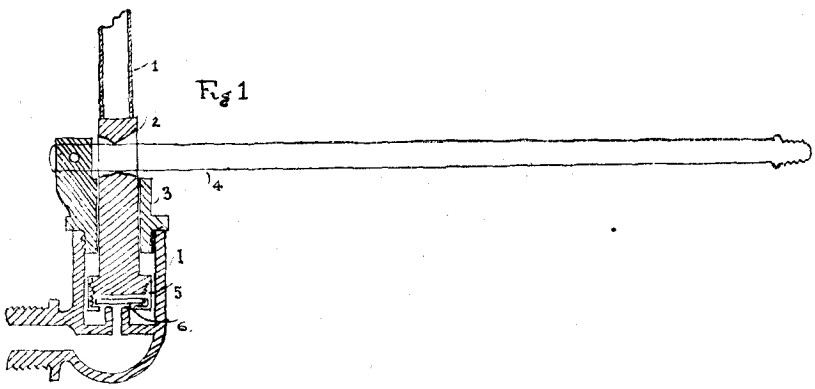
17350
W., T. S., W. H., and G. B. Humble.
Floor-cramp. (McDonald.)



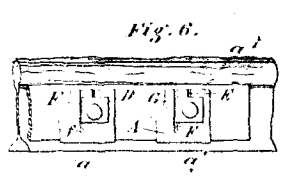
17415
Crense. Tooth-brush.



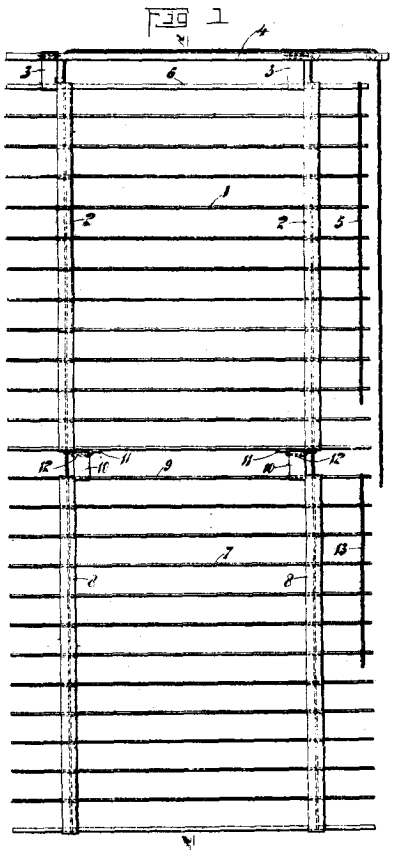
17403
Crafar. Whiffle-tree.



17316
Cook. Ball Valve.



17318
Pennington. Nut-locking Spring Washer.



17327
Allen. Venetian Blind.

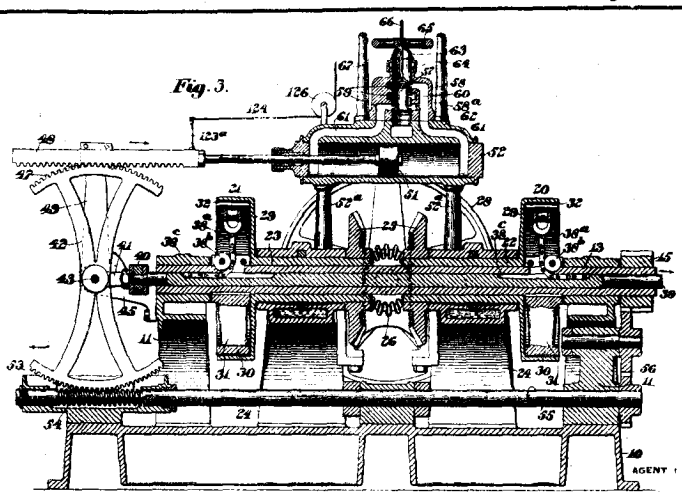
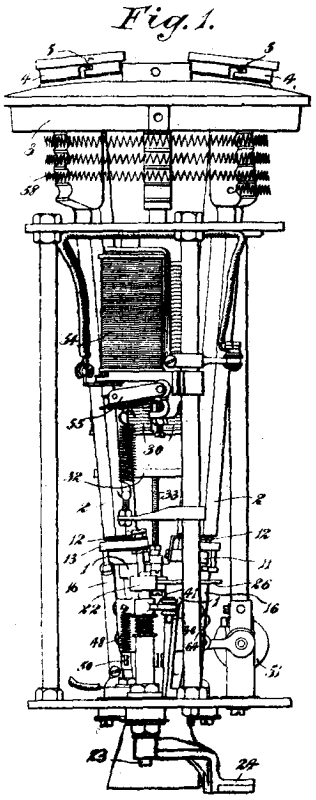


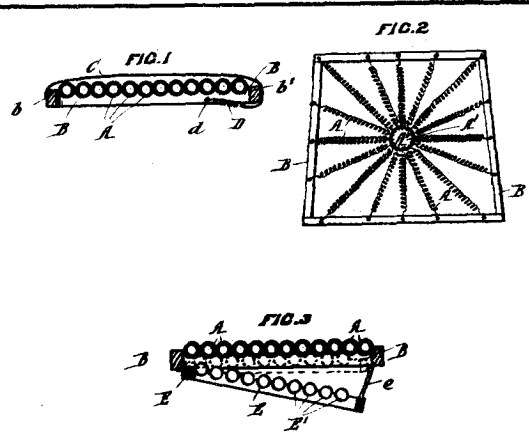
Fig. 3.

17399
Lombard. Governor.

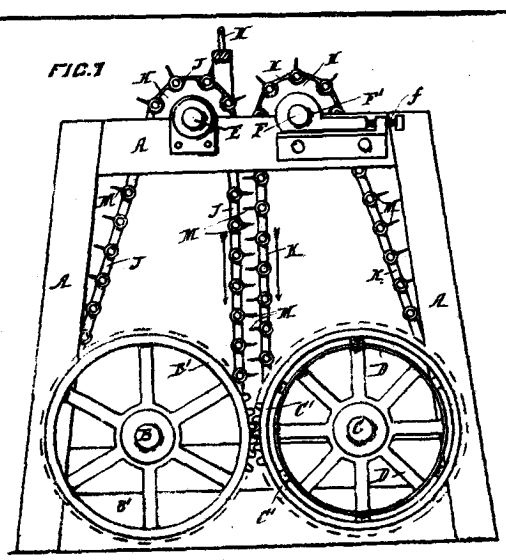
Fig. 1.



17404
Campbell Electric Arc-lamp.
(The British Westinghouse Electric and Manufacturing Company, Limited.)

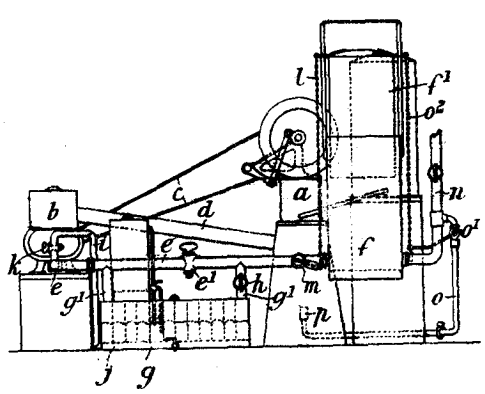


17401
Aggers. Cushioned Furniture.



17412
W. and A. Ross. Flax-washing Machine.

Fig. 1.



17419
The Flameless Gaslight Company, Limited.
Vapour-generator. (Hooker.)