SUPPLEMENT

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Patent Agent registered.

Patent Office,
Wellington, 18th July, 1899.

IT is hereby notified that

EDWARD HENRY FEATON

of Gisborne, New Zealand, draughtsman, has been registered as a Patent Agent.

F. WALDEGRAVE,
Registrar.

Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 18th July, 1899.

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. 10662.—8th June, 1898.—QUENTIN MUIR, of Grantham, Hawera, New Zealand, Farmer. An improved method of and an apparatus for, ploughing couchy or other grass land.*

Claims.—(1.) The method of cutting up any sod by means of rotary cutters substantially as described, and as illustrated by the drawings. (2.) The share D, for purpose indicated. (3.) The gratings E, hinged or rigid, for purpose indicated. (4.) The knives or cutters C, of different shapes, for the purpose indicated. (5.) The driving-wheel G, so fixed or upheld as to follow the inequalities of the ground.
(Specification, 1s. 6d.; drawings, 8s.)

No. 11062.—13th October, 1898.—JOHN JAMES FREDERICK WALKER, Manufacturing Chemist, and JAMES SUTHERLAND, Boot Salesman, both of 183, Hereford Street, Christchurch, New Zealand. Improved apparatus for making toast.*

Claim.—Improved apparatus for making toast, consisting of the metal diaphragm, to which is attached a wire grid, said grid being formed with a handle by which the apparatus may be manipulated, substantially as and for the purposes described, and illustrated in the drawing.
(Specification, 1s. 3d.; drawings, 3s.)

No. 11637.—16th May, 1899.—JOHN STUART WHITE, of 31, Moray Place, Dunedin, New Zealand, Cement-works Manager. Improvements in funnels used in filling narrow-necked vessels and suchlike.

Claim.—In funnels for decanting or filling receptacles with liquids, the forming of the part of the funnel that sits on the neck of the vessel to be filled of other shape than such neck, for the purpose of allowing the confined air to escape outwards, substantially as described and explained.
(Specification, 1s. 6d.)

No. 11673.—6th June, 1899.—HORACE FINLAY MALCOLM, of 69½, George Street, Sydney, New South Wales, Watchmaker. An improved mailbag-fastener.

Claims.—(1.) A secure mailbag-fastener, requiring only a paper seal or a seal made of other material of a similar thickness, to detect if it has been tampered with in transit, and being so arranged that the seal is protected from being accidentally injured or soiled, by means of a glass or other covering of a transparent nature, substantially as and for the purpose specified, and as illustrated in the drawings. (2.) The construction and arrangement of parts constituting an improved mailbag-fastener, said parts being constructed and arranged substantially as and for the purpose aforesaid, and as illustrated in the drawings.
(Specification, 2s. 6d.; drawings, 5s. 6d.)

No. 11755.—29th June, 1899.—FREDERICK JAMES WATTY, Settler, and THOMAS GORDON, Blacksmith, both of Wanganui, New Zealand. An improved fire-escape ladder.

Claim.—A ladder made in sections and jointed with a stop-joint, as shown in Figs. 5, 6, 7, 8; a ladder made in sections, that will fold up, as shown in Figs. 3 and 4, and having stop-joints, and also having links to hold same at the top, one of which has a rung, kept off the sill by a strut at G, Fig. 1.
(Specification, 2s. 3d.; drawings, 6s.)

No. 11768.—5th July, 1899.—WILLIAM ABRAHAM SHORE, Dredgemaster, and JOHN WHITE, Solicitor, both of 2, Commercial Chambers, Manse Street, Dunedin, New Zealand. Improvements in apparatus for saving gold.

Claims.—(1.) In gold-saving apparatus, a chain fixed upon a swivel so that it may revolve in the screen during the revolution of the said screen, substantially as and for the purposes set forth. (2.) In gold-saving apparatus, in combination, a screen for breaking up or separating auriferous material, a distributing-box below the screen, a well fixed at the lower end of the distributing-box, a second box below the distributing-box, angle-pieces below the second box, and gold-saving tables, substantially as and for the purposes set forth. (3.) In gold-saving apparatus, in combination, a revolving screen and chain for breaking up or separating auriferous material, an inclined distributing-box below the screen and holes in the bottom at each side, calico and cocoanut-matting upon the bottom of the distributing-box held in place by angle-irons, a well fixed at the lower end of the distributing-box and having sides which may be raised or lowered to regulate the discharge, and having a chute for discharge of surplus water, a second box below the distributing-box having a perforated bottom and inclined in a direction opposite to the distributing-box, angle-pieces below the second box provided with small holes, and gold-saving tables covered with wire-netting, substantially as and for the purposes set forth. (4.) The improvements in gold-saving apparatus consisting of parts constructed, arranged, operating, and combined substantially as and for the purposes set forth.

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

No. 11773.—6th July, 1899.—JOHN GEORGE LEYNER, of Sheridan Building, Denver, Colorado, United States of America, Manufacturer of Rock-drilling Machinery. Rock-drilling engines.

Claims.—(1.) In a rock-drilling engine, the combination with the cylinder and the piston, of a front cylinder-head comprising an integral cylindrical member adapted to be threaded to the end of the said cylinder, an axial bore through said head, a counterbore at its inner end, a chuck-bearing ring rotably seated in said bore, and a drill-holding chuck rotably mounted in said chuck-ring, substantially as described. (2.) In a rock-drilling engine, the combination with the cylinder, the piston, and the cylinder-head, of a rotable chuck-ring, axially supported in said cylinder-head, and a drill-holding chuck supported by said chuck-ring, with a rock-cutting drill-bit loosely supported in said chuck, and having its shank extending into said chuck and adapted to be impinged by the reciprocative movement of the piston, substantially as described. (3.) In a rock-drilling engine, the combination with the cylinder, the piston, and the front cylinder-head having an axial bore, of a counterbore adjacent to its cylinder-end, a chuck-ring in the larger bore of said cylinder, a second counterbore intermediate of the other two counterbores, a steel-ring bearing against the outer end of said ring, a spring between said ring and a shoulder formed in said cylinder-head, a drill-holding chuck rotably mounted in said chuck-ring, a drill-bit adapted to be held loosely by said chuck, and a chuck-sleeve in said cylinder-head adapted to be manually turned to lock said drill-bit loosely and removably to said chuck, substantially as described. (4.) In a rock-drilling engine, the combination with the cylinder and the piston, of the front cylinder-head, the chuck-ring therein, the chuck supported by said chuck-ring; the chuck-sleeve surrounding the chuck and extending beyond the end of said cylinder-head far enough to be turned by the hand of an operator, the spring and the spring-ring, substantially as described. (5.) In a rock-drilling engine, the combination with the cylinder and the piston, of the front cylinder-head, the chuck therein, the chuck-ring for supporting the same, a fluted nut in the end of said chuck, a hammer-bar forming an extension of the said piston and having a fluted end fitting the fluted nut in said chuck, a drill-bit loosely supported by said chuck and extending into the reciprocating path of said piston, and means for manually locking and for unlocking said drill-bit to and from said chuck, substantially as described. (6.) In a rock-drilling engine, the combination with the cylinder and the piston, of the front cylinder-head, a drill-holding chuck rotably supported axially therein, a drill-bit operatively supported by said chuck, means for manually locking said drill-bit to and for unlocking it from said chuck, and means connected with the said piston for rotating or turning said chuck and drill-bit step by step, substantially as described. (7.) In a rock-drilling engine, the combination with the cylinder, the piston, and the front cylinder-head, of a drill-bit, adapted to be operatively held and supported loosely in said cylinder-head so as to be withdrawn therefrom and inserted therein instantly at will, and adapted to extend into the reciprocal path of said piston and be impinged by it in its reciprocal movements in the said cylinder, and having a passage extending through it from one end to the other, adapted to convey a portion of the actuating expansive fluid used to operate the piston from the valve-chest and cylinder to the cutting-point of the said drill-bit, and means for rotating or turning said drill-bit step by step, substantially as described. (8.) In a rock-drilling engine, the combination with a cylinder, a piston, a valve-chest and valve, and a front cylinder-head, of a rock-cutting drill-bit having an axial hole through it from end to end, a water-conveying tube extending into said drill-bit and arranged and adapted to deliver a supply of water under pressure, a supply of air flowing from said valve-chest to said drill-bit and mingling with and flowing with said water to the bottoms of holes in rock while drilling them, and an automatically opening and closing valve arranged and adapted to be opened and closed by the pressure of the air and to allow only a suitable amount of air to flow to the drill-bit, to eject, when combined with said water, the rock-cuttings from the hole being drilled, substantially as described. (9.) The combination in a rock-drilling engine, of the cylinder, the piston, the front cylinder-head and the drill-holding chuck and chuck-sleeve, with a drill-bit adapted to be operatively supported by said chuck and chuck-sleeve, and having a shank and two oppositely arranged projections formed on said shank near its end, and an axial perforation through said drill-bit, and means connected with said chuck and chuck-sleeve for rotating said drill-bit step by step, substantially as described. (10.) In a rock-drilling engine, the combination of the cylinder, the piston, the cylinder-head, the chuck-ring mounted in said cylinder-head, and the chuck and chuck-sleeve, with a drill-bit of any form or cross-section, having a striking-end adapted to fit freely in said chuck, and arranged to be operatively impinged by and intermittently rotated by said piston, a projection at substantially diametrically opposite points adjacent to said drill-point's striking-end, adapted to loosely lock said drill-bit rotably to said chuck and against longitudinal displacement from said chuck and chuck-sleeve, and a passage or conduit from the striking-end of said drill-bit to its cutting-point adapted to convey a portion of the piston's actuating-fluid from said cylinder to the cutting-point of said drill-bit and to the bottom of the hole being drilled, substantially as described. (11.) In a rock-drilling engine, a rock-drill-bit having a drill-shank of any merchantable form of cross-section, and having a cutting-point of any desired common form, a shank-end adapted to be struck by said piston, a lug or shoulder adjacent to said end, and an axial hole from end to end throughout its length, or a closed passage attached to or arranged to form a part of said drill-bit extending from its striking-end to its cutting-point, substantially as described. (12.) In a rock-drilling engine, the combination with the cylinder, the piston, and the front cylinder-head, of a drill-bit resting freely and loosely and not in any way clampingly secured or fastened to the cylinder-head, but operatively supported in a substantially fixed position relative to the reciprocal movements of said piston, and arranged and adapted to be struck intermittently and successively by said piston, means for rotating said drill-bit step by step, and means for conveying a portion of the piston's actuating-fluid from the cylinder to the drill-bit's cutting-point, substantially as described. (13.) In a rock-drilling engine, a rock-cutting drill, comprising a bar of drilled steel of any form of cross-section containing an axial hole through it from end to end, and a projection or shoulder adjacent to or at a short distance from its striking-end, substantially as described. (14.) In a rock-drilling engine, a rock-cutting drill, loosely positioned and supported in and to the drilling-engine, and arranged to be impinged upon one end by a reciprocal movement of the piston, and arranged and adapted to convey a portion of the piston's actuating-fluid directly from the front cylinder-port into and through said cutting-drill to its cutting-point and to the bottom of the hole being drilled, and an automatically operating valve adapted to control the admittance of air to the rock-cutting drill, whereby said actuating-fluid is used to expel the rock-cuttings from the hole being drilled, substantially as described. (15.) In a rock-drilling engine, a rock-cutting drill loosely positioned and supported in the drilling-engine, and arranged to be impinged upon one end by a reciprocal movement of the piston, an axial hole through said rock-cutting drill from end to end arranged and adapted to convey a portion of the piston's actuating-fluid directly from the cylinder to its cutting-point to blow out from the hole being drilled the rock-cuttings, and means for mingling a supply of water with said actuating-fluid in said rock-cutting drill, substantially as described. (16.) In a rock-drilling engine for expelling rock-cuttings from holes while drilling them, consisting of an operative drilling-engine, having rock-cutting drills arranged and adapted to extend into the cylinder of the drilling-engine and to be struck and actuated to cut rock by the reciprocative movements of the piston impinging against its inner end, and in which the cutting-drills

have an axial hole through them from end to end, and the piston's actuating-fluid is controllably supplied automatically to the axial hole in said rock-cutting drill, and means for leading a supply of water into the axial hole in said drill-bit and for mingling the air and water together and for discharging them in the bottom of holes in rock while drilling them, substantially as described. (17.) In a rock-drilling engine, a rock-cutting drill arranged to be struck by the reciprocal movements of the piston, and provided with a collar, projection, or shoulder adjacent to its striking-end, adapted to form a locking, securing, and positive means for holding and rotating said drill-bit, and a passage axially through said cutting-drill, arranged to conduct a portion of the piston's actuating-fluid from the cylinder to the cutting-point of said rock-cutting drill, and a valve for controlling the supply of actuating-fluid flowing to the drill-bit, substantially as described. (18.) In a rock-drilling engine, a drill-bit arranged to project into the cylinder of the drilling-engine, and arranged to be operatively struck upon its end by the reciprocal movements of the engine's piston, and containing a passage or conduit from said engine's cylinder to or adjacent to said drill-bit's cutting-point, and a water-passage or tube through said drilling-engine to said passage in said drill-bit, means to provide a suitable water-supply for said passage and said drill-bit, whereby a commingled supply of the cylinder's actuating-fluid and water is conveyed from said drilling-engine through said drill-bit to its cutting-point and to the bottom of holes in rock while drilling them, substantially as described. (19.) In a rock-drilling engine, a suitable cylinder, a reciprocative piston, a suitable controlling-valve and suitable feeding-mechanism and drill bits arranged to project into said cylinder into the reciprocal path of said piston, and arranged and adapted to be struck directly on their cylinder-invading ends by the reciprocal movements of said piston, and containing a passage or conduit for the actuating-fluid of said rock-drilling engine, opening into or communicating with said engine's cylinder, and extending through said drill-bits to or adjacent to their cutting-points, a water-conveying tube or conduit connecting with the said passage or conduit in said drill-bits, means to provide a suitable water-supply and to mingle with it a portion of the cylinder's actuating-fluid, substantially as described. (20.) In a rock-drilling engine, the combination with the cylinder and the piston, of a drill-bit, containing an axial hole from end to end, and extending into the reciprocal path of the piston and passage in said cylinder, open to a controlled supply of the engine's actuating-fluid, an axial bore through said piston, a tube in said bore projecting into the hole in said drill-bit, and means to provide a suitable water-supply under pressure, substantially as described. (21.) In a rock-drilling engine, the combination of the cylinder, the piston, the cylinder-heads, the chuck-sleeve, the chuck, and the hollow drill, with a liquid- or water-conveying tube through said piston, connected with said hollow drill, and a valve-controlled passage from said cylinder adapted to allow a suitable supply of the cylinder's actuating-fluid to flow into said hollow drill, whereby a combined stream of liquid and actuating-fluid is caused to flow through said drill-bit to the bottom of holes while drilling them, and means, including a valve, for controlling the volume and pressure of said liquid and actuating-fluid stream, substantially as described. (22.) In a rock-drilling engine, the combination with the cylinder, of a piston having an extension hammer-bar, the front cylinder-head, the chuck-sleeve, the chuck, the chuck-ring, and the cupped washers and rings surrounding said hammer-bar, with a hollow drill-bit held loosely to said chuck-sleeve and chuck, and arranged to be instantly withdrawn from or inserted in said chuck-sleeve and chuck, and provided with means for defining its operative position in said chuck-sleeve and chuck and to said cylinder and piston, and with a fixed tube projecting from the rear end of said cylinder freely through said piston, and extending into said drill-bit, substantially as described. (23.) In a rock-drilling engine, the combination with the cylinder and the piston, of a hollow drill-bit projecting into said cylinder into the reciprocating path of the piston, and arranged to convey a portion of the piston's actuating-fluid to the bottom of holes while drilling them, with a water-tube projecting into said drill-bit for supplying water under pressure and mingling it with the actuating-fluid of said drill-bit, and discharging into the bottom of holes, while drilling them, a combined stream of actuating-fluid and water, and means for preventing the water from entering said cylinder, substantially as described. (24.) In a rock-drilling engine for expelling rock-cuttings from holes while drilling them and for laying the rock-dust, a substantially combined mixed or commingled operative supply of any suitable watery liquid and an operative portion of the engine's actuating-fluid, discharged steadily or intermittently during operative rock-drilling, or at each stroke of the piston, or at suitable intervals, in any suitable operative form, such as a spray or jet or as a stream, into the bottom of holes in rock while drilling them, and means for preventing the water from entering said cylinder, substantially as described. (25.) In a rock-drilling engine, the combination with the cylinder and the piston, of the front, the rear, and the supplementary cylinder-heads, a hollow drill-bit projecting into the path of the piston, and a water-inlet tube secured to said rear cylinder-head and projecting through said piston into said drill-bit, and an air-passage leading from said cylinder to said drill-bit, substantially as described. (26.) In a rock-drilling engine, the combination with the piston, the cylinder, and the valve and chest, of the drill-bit, the supplementary cylinder-head, the rifle-bar, and the rear cylinder-head having a water-inlet tube secured thereto and projecting therefrom loosely through the axial centre of said rifle-bar and said piston into the striking-end of said drill-bit, and an actuating-fluid passage leading from the valve-chest and cylinder to said drill-bit, substantially as described. (27.) In a rock-drilling engine, the combination with the drill-bit, the cylinder, the valve-chest and valve, the piston and the rifle-bar, axial holes through said rifle-bar and piston, a water-inlet tube projecting loosely through said axial holes into said drill-bit, adapted to conduct a stream of water under pressure through said tubes and drill-bit, a valve for controlling the flow of said water, and a valve-controlled actuating-fluid passage leading from said valve-chest and cylinder into said drill-bit, and means for preventing a harmful flow of water into said cylinder, substantially as described. (28.) In a rock-drilling engine, the combination of a piston having a rifle-bar, a drill-bit having an axial hole through it, a cylinder having a water-conveying tube projecting through said rifle-bar and piston into said drill-bit, a water-passage to said tube, a valve adjacent to said tube for controlling said passage, means for mingling said water with a portion of the engine's actuating-fluid, means for conducting said actuating-fluid and water in a combined stream to the bottom of holes in rock while drilling them, and means for preventing a harmful flow of water into said cylinder, substantially as described. (29.) In a rock-drilling engine, the combination with the hollow drill-bit, of the chuck-sleeve, the chuck, the cylinder, the piston having a hammer-bar extension, the rifle-bar, and the rear cylinder-head having a water-inlet tube projecting through said rifle-bar and piston into said drill-bit, a passage around said tube from said cylinder into said drill-bit, and means, including cupped washers arranged to surround the piston's hammer-bar, for preventing a harmful flow of water into said cylinder, substantially as described. (30.) In a rock-drilling engine, the combination with the cylinder and the piston of a hollow drill-bit mounted to be turned step by step by said piston, a water-inlet tube projecting into said drill-bit, and a valve-controlled actuating-fluid passage from said cylinder into said drill-bit, substantially as described. (31.) In a rock-drilling engine, the combination with the cylinder, the piston, the cylinder-head, and the sleeve of a hollow drill-bit projecting into said cylinder, means for conveying a portion of the cylinder's actuating-fluid to its cutting-point, of a conduit adapted to convey a stream of water under pressure to said drill point, a rear cylinder-head, a passage in said cylinder-head for said water, a valve adapted to control the admission and volume of said water, and a water-inlet coupling adapted to connect with a source of water-supply on either side of said cylinder, substantially as described. (32.) In a rock-drilling engine, the combination with the piston having an axial hole, the drill-bit, the rifle-bar having an axial hole, and the back cylinder-head carrying a water-inlet tube projecting through the axial bores of said rifle-bar and piston, with a water-inlet coupling rotably mounted on said cylinder head, a passage from said coupling to said tube, and means, including a nut and thread, for packing said coupling against leakage, substantially as described. (33.) In a rock-drilling engine, the combination with the piston and the hollow drill-bit, of the back cylinder-head, the water-inlet tube projecting therefrom through said piston and into said drill-bit, a passage through said cylinder-head for the admittance of water under pressure to said tube and drill-bit, a valve controlling said passage and a suitable packing-device for said valve, substantially as described. (34.) In a rock-drilling engine, the combination of the hollow drill-bit, the piston, the rifle-bar, and the back cylinder-head, with a tube projecting loosely through bores in said rifle-bar and piston, and with a water-inlet coupling having a hose- or pipe-connecting nipple, and a passage from said coupling to said tube, substantially as described. (35.) In a rock-drilling engine, the combination with the back cylinder-head, of the rotable water-coupling mounted thereon, a shoulder or abutment adjacent to said coupling, a washer between said coupling and said shoulder, a second washer on the opposite side of said coupling, and a nut threaded to said cylinder-head adapted to tighten said washers and coupling against leakage, substantially as described. (36.) In a rock-drilling engine, the combination of the supplementary cylinder-head, the rear cylinder-head secured thereto, the water-inlet tube, the rifle-bar revoluble on said tube, the piston arranged to

reciprocate and turn on said tube, and the hollow drill-bit surrounding the discharging-end of said tube, substantially as described. (37.) In a rock-drilling engine, the combination with the back cylinder-head, of the water-inlet coupling rotatively mounted thereon, the washer at its sides, and the tightening-nut, substantially as described. (38.) In a rock-drilling engine, the combination with the cylinder, of the piston, the hollow drill-bit, the rifle-bar and the water-inlet tube projecting through said rifle-bar and piston into said drill-bit, with the back cylinder-head, the water-inlet passage therein, the water-inlet coupling, and the valve for controlling said water-inlet passage, substantially as described. (39.) In a rock-drilling engine, the combination of the cylinder, the piston, the rifle-bar and the pawls, with the supplementary cylinder-head and back cylinder-head, the pawl trunnion supporting-ring, a water-inlet tube, a threaded hole in said cylinder and into said supplementary cylinder-head, a cap-screw in said threaded hole, and an oil-hole leading from said cap-screw hole to said pawls and rifle-bar, substantially as described. (40.) In a rock-drilling engine, the combination of a drill-bit having a passage to its cutting-point, a water- or liquid-conduit through said engine to said drill-bit, means for introducing a portion of the engine's actuating-fluid into said water-conduit or to said drill-bit, and for delivering a combined and commingled spray, stream, or jet of actuating-fluid and water from said drilling-engine and drill-bit to the bottom of holes while drilling them, substantially as described. (41.) In a rock-drilling engine, the combination of the cylinder and the piston with the front cylinder-head, having a drill-holding chuck rotably mounted therein, and arranged to be turned step by step by said piston, a drill-bit operatively supported by said chuck and arranged to conduct a portion of the cylinder's actuating-fluid and a stream of water from the engine's cylinder to its cutting-point, a chuck-sleeve surrounding said chuck, a collar on said chuck-sleeve, a ring mounted on said collar, a spring between said ring, and an abutment in said cylinder-head, and means whereby the ring may be moved by the collar of said chuck-sleeve to compress said spring, substantially as described. (42.) In a rock-drilling engine, the combination of the cylinder, the piston, and the front cylinder-head, a rock-cutting drill-bit having projections near the end of its shank, a drill-bit supporting-mechanism consisting of a chuck comprising a cylindrical tube containing two oppositely arranged slots in its forward end, a fluted axial hole in its opposite end, a hammer-bar extension to said piston, a fluted portion at its end fitting loosely in said fluted end of said chuck, projections on said chuck, means for rotably supporting said chuck in said cylinder-head, a chuck-sleeve surrounding freely said chuck, stops on said chuck-sleeve arranged to engage said projections of said chuck, an end-flange extending over the end of said chuck, and an oblong hole axially through the flanged end of said sleeve-chuck, adapted to fit loosely said drill-shank and lugs, substantially as described. (43.) In a rock-drilling engine, the combination of the cylinder, the piston, the front and rear cylinder-heads, the rifle-bar rotating-mechanism and the feed-mechanism, with a water-conveying tube projecting from the rear cylinder-head through said rifle-bar and piston, a drill-holding chuck and chuck-sleeve, revolubly mounted in said cylinder-head, an axial bore through said sleeve and chuck, a drill-bit operatively supported by said sleeve and chuck, and arranged to be operatively rotated step by step by said piston and chuck, and provided with a conduit or passage communicating with said cylinder and with the discharge-end of said water-conveying tube, and arranged and adapted to convey a combined and commingled stream of water and actuating-fluid to the cutting-point of said drill-bit, and having said drill-bit project into the reciprocal path of said piston and arranged to be impinged by said piston, a collet loosely mounted on said chuck-sleeve, a ring mounted on said collet, a spring arranged between said ring and an abutment in said cylinder-head, substantially as described. (44.) In a rock-drilling engine, the combination of the cylinder and the front cylinder-head, of a piston in said cylinder having an extended bar adapted to strike on the shank-end of a rock-cutting drill-bit and a series of flutes cut around said bar, a drill-holding chuck mounted loosely on the fluted portion of said bar, a rock-cutting drill-bit, means for removably securing said drill-bit to said chuck, and means for rotating said piston and chuck and rock-cutting drill-bit, substantially as described. (45.) In a rock-drilling engine, the combination of the cylinder and the front cylinder-head with a rock-cutting drill-bit, a drill-holding chuck arranged to hold the drill loosely and in such a manner that it can be instantly inserted or removed from said chuck manually, a piston in said cylinder having a hammer-bar extension adapted to strike the shank-end of said drill-bit, means for rotating said piston step by step, and means for rotating said drill-bit step by step from said piston, substantially as described. (46.) In a rock-drilling engine, the combination of the cylinder and the cylinder-head with the manually-operating drill-bit-holding chuck, a piston having a hammer-bar extension, cupped washers mounted on said hammer-bar, a ring between said cupped washers, a ring on the outside of each cupped washer, a rubber buffer-ring at the side of one ring, and means for compressing the cupped washers around said hammer-bar, substantially as described. (47.) In a rock-drilling engine, the combination of the cylinder and the drill-bit manually-operating chuck, the piston arranged to strike said drill-bit, means for rotating said piston and drill-bit, and means, including a spring, for cushioning the blow of the piston on the drill-bit when the drill-bit is out of cutting relation to rock, substantially as described. (48.) In a rock-drilling engine, the combination with the cylinder, the piston, and the front cylinder-head, of the hollow drill-bit, and the drill-chuck and sleeve, means including a rifle-bar for rotating said drill-bit step by step, means including a hand-operating device for securing said drill-bit instantly to or for removing it instantly from said drill-holding chuck, means including a spring for cushioning the spent blow of the piston against said drill-bit, means including a water-conveying tube and a water-supply system under pressure for delivering a supply of water into said drill-bit, means including air-passages for delivering a suitable supply of actuating-fluid into the water and in said drill-bit, means including packing-rings for keeping the water out of said cylinder, and means for operating and oiling the moving parts of said drilling-engine, substantially as described. (49.) In a rock-drilling engine, the combination with the cylinder, the piston and its extending hammer-bar, the rifle-bar and pawls, and valved water-conveying tube, the water-inlet coupling, the cylinder-head and the drill-holding-chuck members arranged to be rotated by said chuck-mechanism, the valve-controlled actuating-fluid passages leading to said hollow drill-bit, the buffer-ring and the cupped washers and their supporting-rings surrounding said hammer-bar, substantially as described. (50.) In a rock-drilling engine, the combination with the cylinder and the piston, of the front cylinder-head, the drill-holding chuck and chuck-sleeve, the drill-bit having the projecting lugs, the slots in the chuck in which said lugs are confined, and the end-flange on the chuck-sleeve for confining the lugs to the slots of the chuck, substantially as described. (51.) In a rock-drilling engine, the combination of an operative cylinder, an operative valve-mechanism, a piston arranged to rotate step by step as it reciprocates in said cylinder, and a suitable feed-mechanism, with a drill-bit loosely and unclampably supported operatively by said drilling-engine, and arranged to be impinged against by said piston, and adapted to be rotated step by step by said piston, and containing a passage throughout its length, passages controlled by an automatically-operating valve arranged to convey a portion of the piston's actuating-fluid into said drill-bit, a valved water-conveying tube extending through said piston, means for providing a supply of water under pressure to said tube, and communicating with the passage in said drill-bit, and means for excluding the water from said cylinder, substantially as described. (52.) In a rock-drilling engine, the combination with the valve-chests, the valve, and the cylinder, of the piston having a circumferential groove centrally of its length, actuating-fluid ports leading from said valve-chest to the ends of said cylinder, open passages leading from the main air-inlet port of said valve to its opposite ends, ports or passages leading from the opposite ends of said valve-chest to a position in the cylinder where they will register with the said annular groove in said piston during its reciprocative movements, and having the port contain independent passages placed at a short distance apart, and means for closing the passages nearest the centre of the cylinder, and ports leading from the path of travel of the central part of said piston to the atmosphere, substantially as described. (53.) In a rock-drilling engine, the combination with the valve-chest and valve and the cylinder, of ports arranged to co-operate with the reciprocal movements of the piston, and with a circumferential port therein to automatically operate and cushion the piston, and means comprising two separated outlets leading into said cylinder from the front port of said cylinder, a pin for closing the port nearest the centre of the cylinder, and a hole in the cylinder in which to keep the pin when in disuse, whereby the opening of the valve in the forward or striking-blow end of the piston is retarded and a harder blow is struck, substantially as described. (54.) In a rock-drilling engine, the combination of the valve-chest, the valve, the cylinder, and the piston, of a circumferential groove around the piston slightly nearer its forward or drill-striking end, ports leading from said valve-chest into said cylinder, and from said cylinder to the atmosphere, and arranged to automatically operate the valve and piston, and means comprising two independent and separate outlets for the port leading into the front end of the cylinder, and means at the control of the operator for closing the outlet of these two outlets of this port that is positioned nearest to the centre of the cylinder, whereby two

different strengths of blows may be struck by the piston at the will of the operator, substantially as described. (55.) In a rock-drilling engine, the combination with the cylinder, the cylinder-head, and the piston, of a drill-bit arranged to be struck by said piston, and having lugs, shoulders, or projections adjacent to its shank-end, a drill-holding chuck containing an axial bore adapted to receive the shank of said drill-bit, and lateral recesses radiating from said bore adapted to receive the lugs of said drill-bit; a sleeve rotably mounted on said chuck and extending beyond the end of said cylinder-head far enough to be grasped by the hand of an operator, and containing a flanged end extending down over the end of said chuck; an oblong aperture in the end of said chuck-sleeve arranged to admit the shank and lugs of said drill-shank to pass through said flange into said chuck when said chuck-sleeve is manually turned to bring its drill-shank-receiving aperture in line with the chuck's drill-shank-receiving aperture, and having said chuck-sleeve arranged to be partially rotated manually on said chuck after the drill-shank is admitted to the chuck to a position in which its drill-shank-receiving aperture will stand crosswise or at substantially right angles to the drill-shank-receiving aperture of the chuck, and means including stops or abutting surfaces for locking said chuck-sleeve's drill-shank-receiving aperture in its crossed or right-angled position relative to the drill-receiving aperture of said chuck, substantially as described.

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

No. 11779.—6th July, 1899.—EDWARD ROBERTS, of 31, Moray Place, Dunedin, New Zealand, Consulting Engineer. Improvements in dredging-ladders.

Claims.—(1.) In a dredge, the combination of the ladder such as C and swinging-shaft such as D with a movable sliding bearing such as E, E, sliding on and bolted to a girder such as F, for the purpose of lengthening or shortening the ladder, and so increasing the efficiency of the dredge, substantially as described and explained, and as illustrated in the drawing. (2.) In a dredging-machine, the bearings of the ladder arranged to slide on a beam or girder, instead of or as well as the ladder itself, being telescopic, substantially as described, and for the purposes set forth.

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

No. 11780.—6th July, 1899.—WALTER ERNEST POTTS, of 31, Moray Place, Dunedin, New Zealand, Mechanical Engineer. Improved convertible frame for utilising tins.

Claim.—In an apparatus for utilising tins or boxes, the combination with such box or tin such as X with a double frame such as A, B, B^1, B^2, C, C^1, C^2, for holding long or short tins or boxes, and easily detachable as needed, substantially as described and as shown, and for the purposes specified.

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

No. 11782.—7th July, 1899.—EDWARD ROBERTS, of 31, Moray Place, Dunedin, New Zealand, Consulting Engineer. Improvements in elevator-buckets for dredges.

Claims.—(1.) In elevator-buckets for dredges, the links and ends of the buckets formed as one piece, such as A and B, or B^1 or B^2, substantially as described, and shown in the drawings. (2.) In elevator-buckets for dredges, the whole bucket-ends and links formed as one piece such as A, B^3, substantially as described, and shown in the drawings.

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

No. 11787.—13th July, 1899.—ROBERT LATTA, of 31, Moray Place, Dunedin, New Zealand, Contractor. Cycle parcel-rest and lamp-bracket.

Claim.—In a cycle parcel-rest and lamp-bracket, the combination with the handle-bar of a cycle of a combined parcel-rest and lamp-bracket, such as B, B^1, B^2, or B^3, B^1, B^2, substantially as and for the purposes described and explained, and as illustrated in the drawing.

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

No. 11788.—11th July, 1899.—FRANCIS WILLIAM PAYNE, of 31, Moray Place, Dunedin, New Zealand, Consulting Engineer. Improvements in dredging-appliances.

Claim.—In dredging, the combination of picks working before the suction-inlet or before buckets, driven by cammotion, for loosening the bottom before the dredging, substantially as described and explained, and for the purposes set forth, and as illustrated in the drawing.

(Specification, 1s. 9d.; drawings, 5s. 6d.)

No. 11795.—15th July, 1899.—THOMAS EDWARD KIERNAN, of Turakina, New Zealand, Blacksmith. A trace-spreader.

Claim.—A spreader for trace-chains made of tubing, and having a solid stud at each end, and also two hinged loops that, when closed, act as a lock on the spreader and trace-chain; the same being substantially as described in the application.

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

F. WALDEGRAVE,
Registrar.

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

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

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

Provisional Specifications.

Patent Office,
Wellington, 18th July, 1899.

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

No. 11701.—7th June, 1899.—JAMES BEGG, of Assam, India, at present of Sunny Vale, Timaru, South Canterbury, New Zealand, Tea-planter. An improved rotary speed digger, scarifier, and weeder.

No. 11739.—12th July, 1899.—ALFRED SMITH, of Wakatipu, Otago, New Zealand, Miner. Improvements in the damming of rivers and creeks for facilitating hydraulic elevating for gold-mining purposes.

No. 11752. — 27th June, 1899. — WALTER CHARLES MCALISTER, of Ferry Road, Linwood, Christchurch, New Zealand, Surveyor. An improved device for plotting traverses by co-ordinates.

No. 11753. — 29th June, 1899. — EWEN MCGREGOR, of Orangipongo, Mangaonoho, New Zealand, Sawmiller. Improvement in planing-machinery.

No. 11756.—27th June, 1899.—DUNCAN MCFARLANE, of Invercargill, New Zealand, Hotelkeeper. A magnetic magnetite-sand and gold separator.

No. 11764.—3rd July, 1899.—WILLIAM WOOD, of 24, Manse Street, Dunedin, New Zealand, Confectioner. Improvements in gold-saving apparatus.

No. 11767.—3rd July, 1899.—JAMES ROBINSON, of 75, Hereford Street, Christchurch, New Zealand, Horse-cover Maker. Improvements in horse-covers.

No. 11769.—5th July, 1899.—HENRY SYMES, of 2, Commercial Chambers, Manse Street, Dunedin, New Zealand, Auctioneer. Improvements in gold-saving apparatus.

No. 11770. — 5th July, 1899. — JEREMIAH DRUMMEY, of Alexandra, Otago, New Zealand, Contractor. Improvements in dredges.

No. 11771.—5th July, 1899.—PHILIP GEORGE DODD, of 72, Bishopsgate Street, London, England, Merchant. Improvements in or connected with animal-traps.

No. 11774.—5th July, 1899.—WILLIAM HENRY TRENGROVE, of 183, Hereford Street, Christchurch, New Zealand, Cycle-manufacturer. Improvements in gear-wheels.

No. 11775.—7th July, 1899.—ARTHUR TREADWELL, of 46, Willis Street, Wellington, New Zealand, Printer. A new or improved type-engraving process.

No. 11776. — 8th July, 1899.—JOSEPH TEMPERLEY, of Marton, New Zealand, Saddler. Improvement in horse- or cow-covers.

No. 11778.—5th July, 1899.—JOSEPH LOWDEN, of Eglinton Road, Mornington, Dunedin, New Zealand, Engineer. Automatic coupling for railway-vehicles.

No. 11781.—11th July, 1899.—ROBERT WESSLY MANNING, of Awatuna, near Eltham, Taranaki, New Zealand, Farmer. An improvement in hand sheep-shears.

No. 11783.—13th July, 1899.—HERMAN HOUSE, Manufacturer's Agent, ANDREW LOUGHREY, Solicitor, JOHN ALEXANDER HOLMES, Sheep-farmer, and RICHARD TOMLINE, Engineer, all of 183, Hereford Street, Christchurch, New Zealand. Improved method of and apparatus for steeping grain.

No. 11786.—7th July, 1899.—EDWIN LATIMER CLARK, of Auckland, New Zealand, Contractor. An improved rotary engine.

No. 11789.—12th July, 1899.—WILLIAM FREDERICK SOPER and FRANK MOORE DREWITT, both of Christchurch, New Zealand, Printers. Combined ash-pan and cinder-sieve.

No. 11790.—13th July, 1899.—WILLIAM LIND MITCHELL, of 24, Manse Street, Dunedin, New Zealand, Law Student. An improved bicycle-pedal and toe-clip.

No. 11791.—13th July, 1899.—DAVID HUTCHINSON, of 56, Oxford Chambers, 477, Bourke Street, Melbourne, Victoria, Farmer. An improved method and apparatus for sampling milk and other liquids.

F. WALDEGRAVE,
Registrar.

NOTE.—Provisional specifications cannot be inspected, or their contents made known by this office in any way, until the complete specifications in connection therewith have been accepted.

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

Letters Patent sealed.

LIST of Letters Patent sealed from the 6th July, 1899, to the 18th July, 1899, inclusive:—

No. 10380.—D. E. Smith and A. Tyree, lasting-pliers.
No. 10445.—R. L. H. Murray, coin-freed actuating-mechanism.
No. 10450.—A. Robertson, horse-cover.
No. 10467.—E. Smethurst and W. C. Greig, securing fencing-wire to standard.
No. 10483.—G. F. Newman, waterproofing-composition for garments.
No. 10484.—P. E. Kilworth, Cambridge roller.
No. 10493.—J. Wright and J. W. Mitchell, hat-fastener.
No. 10525.—A. H. Cotton, mustard-pot.
No. 10619.—G. B. H. Austin, cycle-mechanism.
No. 10954.—W. Adams, dredge-tumbler.
No. 11109.—P. Treseder and A. Jackson, cigarette.
No. 11270.—The Empire Cash Register, Limited, cash-register (C. J. Fauvel and N. Collins).
No. 11356.—W. E. Hughes, alternating-current apparatus (E. M. Tingley and M. W. Shallenberger).
No. 11465.—H. P. Davis and F. Conrad, electric motor.
No. 11466.—B. G. Lamme, conversion of electric currents.
No. 11480.—E. Kreuser, ore-separator.
No. 11486.—F. W. Martino and F. Stubbs, treating ores.
No. 11487.—Merrell-Soule Company, vegetable powder (W. B. Gere).
No. 11491.—Clemens, Baron Von Bechtolsheim, milking-apparatus.
No. 11492.—D. Buchanan, potato-digger.
No. 11498.—G. Westinghouse, controller for railway-motor.
No. 11499.—H. A. Saltmarshe, mining apparatus.
No. 11500.—L. C. Auldjo, furnace.
No. 11512.—H. Dunlop, top-dressing for wood blocks.
No. 11515.—W. E. Hughes, fireplace-devices (the Incandescent Fire mantel and Stove Company—W. H. Harvey).

F. WALDEGRAVE,
Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 7681.—G. Claydon and H. Wood, stoker and fuel-economizer for steam-boiler. 13th July, 1899.
No. 7740.—R. Brinsley and P. S. Bett, range. 10th July, 1899.
No. 7800.—H. L. Mainland, rabbit-trap. 13th July, 1899.
No. 7851.—E. Waters, gate (E. H. R. Evans). 17th July, 1899.
No. 7884.—The Gold-extraction and Bromine-recovery Company, Limited, extracting gold (B. C. Hinman). 6th July, 1899.

THIRD-TERM FEE.

No. 5723.—The Automatic Sight-testing and Optical Supply Company, Limited, sight-testing apparatus (B. Green). 6th July, 1899.

F. WALDEGRAVE,
Registrar.

Subsequent Proprietors of Letters Patent registered.

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

NO. 9406.—Henry Edward Partridge and John Jesse Odlum, of Auckland, New Zealand, General Merchants, hair-wash. [W. T. Trudgeon.] 11th July, 1899.

F. WALDEGRAVE,
Registrar.

Application for Letters Patent withdrawn.

NO. 10685.—W. H. Grey and H. W. Parsons, device for checking machinery—advertised in Supplement to *New Zealand Gazette*, No. 28, of the 30th March, 1899.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent lapsed.

LIST of applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 6th July, 1899, to the 18th July, 1899, inclusive:—

No. 10267.—B. Dawson, blight specific.
No. 10281.—J. Harrison, apparatus for suspending drapery, &c.
No. 10286.—G. Hall, earmark.
No. 10288.—T. Garland, pail-handle.
No. 10289.—W. Congreve, stove.
No. 10313.—F. J. Leonard and G. B. Hutton, clothes-peg.

F. WALDEGRAVE,
Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of fees from the 6th July, 1899, to the 18th July, 1899, inclusive:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 7538.—A. McRae, sheep-dipping apparatus.
No. 7540.—W. H. Gaze, milk-testing.
No. 7543.—P. A. Hadley, pile (L. B. Doe—R. B. Markle).
No. 7545.—J. H. Kitson, sterilising milk.
No. 7548.—S. Cossgrove, washing-machine.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

Nil.

F. WALDEGRAVE,
Registrar.

Clerical Errors corrected.

THE request to correct clerical errors in Specification No. 11537—W. F. Williams, tire and rim—advertised in the Supplement to *New Zealand Gazette*, No. 44, of the 25th May, 1899, has been allowed.

F. WALDEGRAVE,
Registrar.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, 18th July, 1899.

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: 2681.

Date: 12th June, 1899.

TRADE MARK.

The word

OLINE.

NAME.

ARTHUR BOURKE NEWING, of Redan Road, Caulfield, Victoria, Oil- and Colour-man.

No. of class: 1.

Description of goods: Aniline dyes and pigments.

No. of application: 2683.
Date: 12th June, 1899.

TRADE MARK.

NAME.

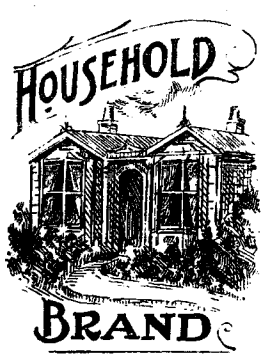
HAROLD WATTS HOWRTH, of corner King and Howe Streets, Dunedin, New Zealand, Manufacturer.

No. of class: 42.

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

No. of application: 2684.
Date: 12th June, 1899.

TRADE MARK.



NAME.

HAROLD WATTS HOWRTH, of corner King and Howe Streets, Dunedin, New Zealand, Manufacturer.

No. of class: 42.

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

No. of application: 2696.
Date: 4th July, 1899.

TRADE MARK.

TRADE MARK.

HOUSEHOLD DELIGHT.

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

NAME.

ROBERT KERR, of 115, Princess Terrace, Newtown, Wellington, New Zealand.

No. of class: 47.

Description of goods: Washing-cream.

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 6th July, 1899, to the 18th July, 1899, inclusive:—

No. 2073; 2390.—J. de Renzy; Class 1. (*Gazette* No. 55, of the 21st July, 1898.)

No. 2074; 2449.—C. W. Hawkins; Class 47. (*Gazette* No. 66, of the 1st September, 1898.)

No. 2075; 2638.—J. K. Tyree and Co.; Class 44. (*Gazette* No. 41, of the 11th May, 1899.)

No. 2076; 2297.—C. G. F. Laurie; Class 42. (*Gazette* No. 22, of the 31st March, 1898.)

No. 2013; 2555.—T. F. Firth and Son, Limited; Class 36. (*Gazette* No. 41, of the 11th May, 1899.)

F. WALDEGRAVE,
Registrar.

Subsequent Proprietors of Trade Mark registered.

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

NO. 2441/2062.—Henry Edward Partridge and John Jesse Odlum, of Auckland, New Zealand, General Merchants. [W. T. Trudgeon.] 11th July, 1899.

F. WALDEGRAVE,
Registrar.

By Authority: JOHN MACKAY, Government Printer, Wellington.