

## **SUPPLEMENT**

то THE

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#### CONTENTS.

			Page
Complete Specifications accepted			1093
Provisional Specifications accepted	••		1100
Letters Patent sealed			1101
Letters Patent on which Fees have been pai	d		Ì101
Subsequent Proprietors of Letters Patent	••		1101
Applications for Letters Patent abandoned			1102
Applications for Letters Patent lapsed			1102
Letters Patent void		••	1102
Applications for Registration of Trade Mark	<b>1</b> 8	••	1102
Trade Marks registered	• •		1104
Subsequent Proprietors of Trade Marks	• •		1104
Trade-mark Renewal Fees paid	••		1104
Illustrations of Inventions	••	At	end.
· · · ·			

Notice of Acceptance of Complete Specifications.

Patent Office, Wellington, 29th April, 1903. COMPLETE specifications relating to the underman-tioned 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 dale of this Gazette, give me notice in writing of opposition to the grant of any such patent. Such notice must set forth to the grant of any such patent. Such notice must set forth the particular grounds of objection, and be in duplicate. A fee of 1()s, is payable thereon.

No. 15022.-18th June, 1902.-MARK SAUNDERS, of Pleasant Point, New Zealand, Builder. An improved harvestingappliance.\*

Claims.—(1.) As a harvesting appliance, a frame of tri-angular shape, in cross section, where base is capable of being lengthened or shortened at will, and ropes upon the frame having their ends attached to a ring, in combination with means for lifting the whole, as set forth and explained, for the purpose described. (2.) As a harvesting-appliance, a frame of triangular shape, in cross section, whose base is capable of being lengthened or shortened at will, ropes upon the frame having their ends attached to a ring, perforated battens upon the tie-pieces of the frame, spikes passing through the battens, and springs for the purpose, with the battens, of normally enveloping the spikes, with means for raising and lowering the whole in or out of a dray or other conveyance, substantially as described and explained, and for the purposes set forth. set forth

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

No. 15030.—23rd June, 1902.—FINLAY MCLEOD, of Wel-lington, New Zealand, Draper. An improved non-refillable bottle.\*

Claims.-(1.) In non-refillable bottles, in combination, an inlet neck or orifice upon the top of the bottle, a cover or seal inlet neck or orifice upon the top of the bottle, a cover or seal for sealing such neck or orifice, an outlet opening in the top end of the bottle, a channel formed integral with the bottle, and the bottom end of which surrounds the outlet opening while the top end has its sides converging together to close such end, a weakening groove formed in the closed end of the channel and extending right round it, a disc within the channel adapted to sit upon and close the outlet opening of the bottle, and protruding stops formed upon the inside of the channel above the disc, as specified. (2.) The general arrangement, construction, and combination of parts in my improved non-refillable bottle, as described and explained, as illustrated in the drawings, and for the several purposes set forth. forth.

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

No. 15103. --10th July, 1902. -- UNITED SHOE MACHINERY COMPANY, of Paterson, New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having their principal place of business at 205, Lincoln Street, Boston, Massachusetts, United States of America aforesaid (assignee of Andrew Eppler, of Allston, Suffolk, Massachusetts aforesaid, Inven-tor). Improvements in or relating to apparatus for turning boots or shoes \* boots or shoes."

Claims. -(1.) A shoe-turning machine having, in combina-tion, a turning-implement, and a form having an aperture extending from a point toward the toe to a point toward the heel, for the purpose or purposes described. (2.) A shoe-turning machine having, in combination, a turning-imple-ment, a form having provision to permit the sole of a shoc to be bent inward, and an auxiliary turning-implement for engaging the sole and bending it inward. (3.) A shoe-turning machine having, in combination, a turning-imple-ment, a form, and means for preventing the sole of a shoe on the form from bending outward during the turning operation, substantially as described. (4.) A shoe-turning machine having, in combination, a form, a turning-implement supported to engage the toe of a shoe on the form, and an auxiliary turning-implement supported to engage the sole, said form and auxiliary turning-implement being relatively movable to transfer the point of engagement of the auxiliary turning-implement with the

sole along the sole during the turning operation, subsole along the sole during the turning operation, sub-stantially as described. (5.) A shoe-turning machine having, in combination, a form, a turning-implement supported to engage the toe of a shoe on the form, an auxiliary turning-implement movable longitudinally of and transversely to the form to engage the sole behind the toe, and means for actuating the auxiliary turning-implement, substantially as described. (6.) A shoe-turning machine having is combination a turning-implement a form having having, in combination, a turning implement, a form having a recess into which the sole of the shoe can be bent, and means for bending the sole into said recess. (7.) A shoemeans for bending the sole into said recess. (7.) A shoe-turning machine having, in combination, a form, a turning-implement supported to engage the toe of a shoe on the form, and having at its working end a laterally-projecting lip, and an auxiliary turning implement the working end of which is movable from a position behind said lip into position to engage the sole of a shoe on the form behind the toe, substantially as described. (8.) A shoe-turning machine having, in combination, a form and a turning-implement and auxiliary turning, implement, movable with and independently toe, substantially as described. (8.) A shoe-turning machine having, in combination, a form and a turning-implement and auxiliary turning-implement, movable with and independently of each other, substantially as described. (9.) A shoe-turning machine having, in combination, means for interiorly sup-porting the shoe to be turned, a turning-implement and means exteriorly engaging the sole and movable along the same during the turning operation to insure its proper bending, substantially as described. (10.) A machine for turning the rear or counter portion of a turn-shoe having, in combination, a form over which the shoe is turned, having a recess in its rear wall to prevent the upper binding on the form, and a plunger movable into and out of the form, substantially as described. (11.) A machine for turning the rear or counter portion of a turn-shoe having, in combination, a form, a plunger co-operating therewith, the form and plunger being relatively movable to cause the plunger to turn the shoe over the form, and means for imparting a relative lateral movement to the form and plunger during the turning operation to relieve the strain on the upper. (12.) In a machine for turning the rear or counter portion of a turn-shoe, a form over which the shoe is turned, provided with a recess in its rear wall to prevent the upper binding on the form. the form.

(Specification, 13s.; drawings, 4s.)

No. 15126.—17th July, 1902.—ELIZABETH BRUCE ABTHUR, of 72, Tinakori Road, Wellington, New Zealand, Married Woman. An improvement in coal-souttles.\*

Utsim.—In a coal scuttle, two linings disposed side by side within the scuttle and provided with handles whereby either lining may be removed without disturbing the other, as set forth

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

No. 15127.—17th July, 1902.— ELIZABETH BRUCE ARTHUR, of 72, Tinakori Road, Wellington, New Zealand, Married Woman. An improvement in or relating to pie-dichee.\*

Claims.-In a pie-dish, a horizontal flange around the top of the dish and a rim around the said flange, in combination with a dished cover having vertical sides, the sharp edges of which rest upon the said horizontal flange within the said rim, substantially as set forth. (Specification, Is. 3d.; drawings, 1s.)

No. 15175.-23rd July, 1902.-THOMAS FRANCIS QUILTER, of Waipori, New Zealand, Dredge-hand, and GEORGE WIL-LIAM GARE, of Waipori aforesaid, Dredge-hand. Means for removing clay and the like from dredge-buckets.\*

Claims.—(1.) The general construction, arrangement, and combination of parts composing our means for removing clay and the like from dredge-buckets, all substantially as and for the nurposes described with reference to the drawings. (2.) Means for removing clay and the like from dredge-buckets, comprising a rocking-arm provided with a blade, adapted to enter each bucket as it moves over the tumbler; so as to remove the material therefrom, and then to return to its normal negative substantially as described to its normal position, substantially as described. (Specification, 28.; drawing, 18.)

No. 15176.-23rd July, 1902.-RALPH DUNNE, of George Street, Dunedin, New Zealand, Picture-framer. Improved mitre-cutting machine.\*

Claims.-(1.) A machine for cutting mitres whereby the moddings may be held at any angle with each other in parallel planes far the purpose of being out together by a saw, substantially as described. (2.) A machine for cutting mitree

whereby the mouldings may be held at any angle with each other in parallel planes for the purpose of being cut together by a saw at half said angle, substantially as described. (3.) A machine for cutting mitres whereby the mouldings may be held at any angle with each other in parallel planes, and means for adjusting one of the mouldings for the pur-pose of having both mouldings cut together at half said angle by a circular-saw, substantially as described. (4.) The general construction, arrangement, and combination of parts composing my improved mitre cutting machine, all sub-stantially as and far the purposes described with reference to the drawings. (Specification, 7s. 6d.: drawings, 3s.)

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

No. 15203.—2nd August, 1902.—UNITED SHOE MACHINERY COMPANY, of Paterson, in the State of New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having their principal place of business at 205, Lincoln Street, Boston, Massachu-setts, United States of America (assignes of Eugene Frank-lin Davenport, of Melrose, Middlesex, Massachusetts afore-said, Travelling Salesman). Improvements in skiving-machines.\* machines.

said, Travelling Salesman). Improvements in skiving-machines.\* Claims.-(1.) In & machine of the kind described, the combination with devices for operating on the work of a feeding-mechanism, comprising two members normally driven at the same speed, and means under the control of the operator for reducing the speed of one of said members to vary the rate of feeding. (2.) In a machine of the kind described, the combination with a cutter of mechanism for feeding the work, said feeding-mechanism comprising a work-support and a feeding-disc adapted to co-operate to feed the work, a driving-shaft to actuate said feeding members, and a slip connection between said driving-shaft- and one of said feeding members, whereby the said feeding member may be manually retarded by the operator. (3.) In a machine of the kind described, the combination with a cutter of feeding mechanism, comprising a work-support and a rotary feeding-disc adapted to co-operate to feed the work, a driving-shaft far actuating the feeding-disc adapted to co-operate to setween the disc and the shaft whereby the disc may be manually retarded by the operator. (4.) In a machine of the kind de. scribed, the combination with a cutter of mechanism for feeding the work, said feeding-mechanism comprising a work-support and a feeding-disc adapted to co-operate to feed the work, a driving-shaft, and a cone clutch, the members of whith a veltding in engagement, whereby the feed-ing-disc may be manually retarded to vary the rate at which the work is fed. (5.) In a machine of the kind described, the combination with a cutter of a work-support, a driving-shaft, a feeding-disc, said feeding-disc shaft compris-ing two sections, provided respectively with the members of scribed, the combination of a driving-shaft, a work-support, a feeding-disc, a shaft on which said feeding-disa is mounted, a pinion on said disc-shaft in operative connection with said driving-shaft. A socket formed in said pinion, and & come-clutch member adjustably mounted on said disc-shaft

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

No. 15204.—2nd August, 1902.—UNITED SHOE MACHINEBY COMPANY, of Paterson, in the State of New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having their principal place of business at 205, Lincoln Street, Botton, Massachu-setts, United States of America (assignees of Charles Henry Bayley, of Boston aforesaid, Inventor). Improvements in skiping machines \* skiving-machines.

Claims.—(1.) In a skiving-machine, the combination of a machine-frame, a knife-frame, and **means** for relatively adjusting said two frames, a driving-shaft carried by said machine-frame and provided with a pulley, arranged substantially as described in relation to the direction of relative movement of said frames, a movable knife carried by said knife-frame, idle pulleys also carried by said knife-frame, and a balt connecting in the manner described and driving a belt connecting, in the manner described, said driving-pulley and said movable knife to actuate the latter, whereby the tension of said belt is maintained substantially uniform in the varying relative adjustments of the said frames, with or without means for adjusting one of said idle pulleys.

**Claims**.—(1.) In a machine for inserting fastenings. **Said Clutch**-pin. (11.) In a machine for inserting fastenings. **Said Clutch**-pin. (11.) In a machine for inserting fastenings. **Said Clutch**-pin. (11.) In a machine for inserting fastenings. **Said Clutch**-pin. (11.) In a machine for inserting fastenings. **Said Clutch**-pin. (11.) In a machine for inserting fastenings. **Said Clutch**-pin. (11.) In a machine for inserting fastenings. **Said Clutch**-pin. (11.) In a machine for inserting fastenings. **Said Clutch**-pin. (12.) In a machine for inserting fastenings. **Said Clutch**-pin to **Said Science Said Science** moval of stook. (4.) In a machine for inserting fastenings, the combination, with a driving shaft, a driver, and an awl, of mechanism intermediate the driving shaft and the awl of mechanism intermediate the driving-shaft and the awl far operating the awl, said mechanism including a ope clutch and means for operating the clutch to discon-nect the awl fmm the driving-shaft and render the (1 awl inoperative during repeated operations of the driv-ing-shaft and driver. (5.) In a machine for inserting po fastenings, the combination, with a driving-shaft, a driver, mechanism for actuating the driver to insert fastenings, and an awl, of mechanism intermediate the driving-shaft and the awl for operating the awl said mechanism including a mechanism for actuating the driver to insert fastenings, and an awl, of mechanism intermediate the driving-shaft and the grit for operation for the machine while the driving-shaft is in operation, for actuating the clutch to connect the awl is in operation, for actuating the clutch to connect the awl with the driving-shaft and render the awl operative. (6). In a machine for inserting fastenings, the combination of driving-shaft and render the awl operative. (6). In a machine for inserting fastenings, the combination of fastenings are to be inserted and arranged, to be dis-connected from the driving-shaft when the insertion of fastenings is to be connected with the driving-shaft is in operation for effecting a positive commotion between the driving-shaft and the awl, whereby the awl is positively fastenings, the combination of a driving-shaft, mechanism in operation for feeding fastening material, an awl moyable to enter and withdraw from the stock, means under the control of the operation for suspending the operation of the deting fastening material, an awl moyable to enter and withdraw from the stock, means under the control of between the awl and the driving-shaft, whereby the awl is positively actuated in both dirkings. (8) In a machine for skiving articles of leather, the combination, with a suitable pressure-device, of a die-coller provided with a die-roller and pressure-device, of a die-lecting balak to the die-roller and pressure-device, of a die-lecting balak to the die-roller and pressure-device, of a die-lecting mechanism son die-roller being relatively adjustable bring any die-cavity and the feeding-mechanism into co. control of the operation, and mechanism under the driving-shaft, a lever constantly operated by said driving-shaft, an awl, positively actuated in both dirkins. (8) In a machine for inserting fastening fastening abseliking a positive connection between the awl and the driving-shaft, an awl, positively actuated in both dirkins. (8) In a machine for skiving articles of leather, the c

(2.) In a skiving-machine, the combination of a shaft means for connecting said layer and awl to render the awl mechanism add an adjustable half-bearing, substantially as described, and an adjustable half-bearing, substantially as described, for said Shaft at the end adjacent, the pulley to support the shaft against lateral strain. (Specification, 7s. ; drawings, 4s.)
No. 15205.—2nd August, 1902.—UNITED SHOE MACHINERY COMPANY, of Paterson, in the State of New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having their principal place of business at 205. Lincoln Street, Boston, Massa-chusetts, United States of America (assignees of Edwin Theophilus Freeman, of Boston aforesaid, Manager). Improvements in machines for inserting fastenings.
Claims.—(1.) In a machine for inserting fastenings.
Machine for competition of a driving shaft, a lever, and with a machine for inserting fastenings.

for inserting fastenings, the combination of a driving-shaft, an awl-bar and awl, a second shaft, connections between said second shaft and the awl-bar, a clutch, a continuously moving actuator for the awl bar, and means under the control of the rator for causing said clutch to stop the movement of said awl-bar while the actuator continues in motion. 3.) The improved machine for inserting fasteninga, ar-ranged and operating substantially as and for the pur-se described, and illustrated in the drawings. (Specification, 18s.; drawings, 3s.) said

No. 15207.--2nd August, 1902.-UNITED SHOE MACHINERY COMPANY, of Paterson, in the State of New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having their principal place of business at 205, Lincoln Street, Boston, Massa-chusetts, United States of America (assignees of Jacob Rupert Scott. of Station A, Boston aforesaid, Mechanical Engineer). Improvements in leather skiring machines:

and pressure-device, said die-roller being adjustably mounted in the machine so that any die-cavity can be brought into co-operative relation with the feeding-mechanism, substantially operative relation with the feeding-mechanism, substantially as described. (5.) In a machine for skiving articles of leather, the combination, with a suitable pressure-device, of a die-roller provided with a die-cavity and feeding-mechanism constructed and arranged to feed a blank into the bite of the die-roller and pressure-device, and to bend the blank into the die-cavity, substantially as described. (6.) In a machine for skiving articles of leather, the combination, with a suit-able pressure-device and a die-roller provided with a die-cavity, of a feed-slide for feeding a blank into the bite of the die-roller and pressure-device, and mechanism for actuating die-roller and pressure-device, and mechanism for actuating the feed-slide constructed and arranged to impart to the feed-slide a speed greater than the peripheral speed of the die-roller to bend the blank into the die-cavity, substantially as described. (7.) In a machine for skiving articles of leather, the combination, with a die-roller, a pressure device, and feeding-mechanism for feeding blanks to the die-roller and pressure device of means under the control of device, and feeding-mechanism for a freeding blanks to the die-roller and pressure-device, of means under the control of the operator for throwing said feeding-mechanism into and out of operation at predetermined times during the opera-tion of the machine, substantially as described. (8.) In a machine for skiving articles of leather, the combination, with a die-roller, a pressure-device, a feed-slide for feeding blanks to the die-roller and pressure-device, and a driving shaft and suitable connections for actuating the feed-slide, of a con-troller for rendering said connections inoperative when the feed-slide reaches a predetermined position, and a treadle and suitable connections for actuating the controller, sub-stantially as described. (9.) In a machine for skiving articles of leather, the combination, with a die-roller, a pressure-device, and a feed-slide for feeding blanks to the die-roller and pressure-device, of mechanism for actuating the slotted link 50, a controller for the link consisting of the roller 55 supporting the link, and means for actuating the controller link 50, a controller for the link consisting of the roller 55 supporting the link, and means for actuating the controller comprising the pivoted yoke 56, the treadle 60, and the con-necting rod 57, substantially as described. (10.) In a blank-feeding mechanism, the combination, with a hopper and a follower acting on a pile of blanks in the hopper, of mechanism for actuating the follower to maintain the pile of blanks in proper position to be fed from the hopper and for actuating the follower in a direction to allow a new supply of blanks to be placed in the hopper, and means under the control of the operator for throwing said me-chanism into operation to actuate the follower in either direction, substantially as described. (11.) In a blank-feed supply of blanks to be placed in the hopper, and means under the control of the operator for throwing said me-chanism into operation to actuate the follower in either direction, substantially as described. (11.) In a blank-feed-ing mechanism, the combination, with a hopper, and a follower acting on a pile of blanks in the hopper, of me-chanism including a frictional power-transmitting devices and reversing devices for actuating the follower to main-tain the pile of blanks in proper position to be fed from the hopper, and for actuating the follower in a direction to allow a new supply of blanks to be placed in the hopper, and means under the control of the operator for actuating said reversing devices to cause the follower to be actuated in either direction, substantially as described. (12.) In a blank-feeding mechanism, the combination, with a hopper, a fol-lower acting on a pile of blanks in the hopper, and means for holding the follower out of contact with the pile of blanks, of means under the control of the operator for releasing the follower and allowing it to move into con-tact with the pile of blanks, substantially as described. (13.) In a blank-feeding mechanism, the combination, with a hopper, a follower acting on a pile of blanks from the pile, of means under the control of the operator for releasing the follower and allowing it to move into con-tact with the pile of blanks, substantially as described. (14.) In a blank-feeding mechanism, the combination, with a hopper, a follower acting on a pile of blanks in the hopper, and feeding-mechanism for feeding blanks from the pile, of means under the control of the operator for releasing the follower and allowing it to move into contact with the pile of blanks, and for thereafter throwing the feeding-mechanism into operation, substantially as described. (14.) In a blank-feeding mechanism, the combination, with a hopper, a fol-lower acting on a pile of blanks in the hopper, and feeding-mechanism for actuating the follower and the feeding-mechanis slide, and means under the control of the operator for throwing the mechanism for actuating the feed-slide. (16.) In a machine for skiving articles of leather, the combination, with a die-roller, a pressure-device, a feed-slide, and mechanism for actuating the feed-slide, of a register and means for actuating the register, com-prising a shaft, a pinion on the shaft, a rack meshing there-

with movable with the feed-slide, a crank-pin on the shaft, a by the pawl, substantially as described. (17.) In a machine for skiving articles of leather, the combination, with a die-roller, a pressure-device, a hopper, a feed-slide for feeding blanks from the hopper to the die-roller and pressure-device, blanks from the hopper to the die-roller and pressure-device, mechanism for actuating the feed-slide, and a follower acting on a pile of blanks in the hopper, of a register, connections between the register and feed-slide for actuating the register, and means under the control of the operator for releasing the follower and allowing it to move into contact with the pile of blanks, and for thereafter connecting the feed-slide to its actuating mechanism, substantially as described. (18.) In a blank-feeding mechanism, the combination, with a feed-table and a hopper located above the feed-table, of removable means for supporting a pile of blanks above the level of the feed-table, substantially as described. (19.) In a blank-feed-ing mechanism, the combination, with a feed-table and a hopper located above the feed-table, of a removable filling-plate for supporting a pile of blanks above the level of the ieed-table, a reciprocating carrier and a feed-slide removably secured thereto, arranged to reciprocate over the filling-plate and feed the blanks from the hopper, substantially as de-scribed. (19.) scribed.

(Specification, £1 16s.; drawings, Ss.)

No. 15314 .- 27th August, 1902 .- THOMAS CHURCHMAN DARBY, THOMAS ALBERT DARBY, and SIDNEY CHARLES. DARBY, all of the Darby Digger Works, Wickford Junction, Essex, England, Engineers. Improvements in implements for digging or cultivating land and breaking up roads and the like.

Claims.--(1.) In an implement for digging or cultivating land and breaking up roads and the like, the combination of a crank or other shaft on the engine, a chain-wheel fixed on such shaft and giving motion by means of a chain to a chain-wheel fixed on a cross shaft carried by the frame of the digging implement, and means for communicating motion from said cross shaft to the vertical spindles carrying the digging tools, substantially as set forth. (2.) In an im-plement for digging or cultivating land and breaking up roads and the like, the combination of a crank or other shaft on the engine, a chain-wheel mounted on such shaft and giving motion by means of a chain to a chain-wheel mounted on a cross shaft carried by the frame of the digging im-plement, hevel wheels mounted on the ends of the said cross-shaft gearing with beyel wheels mounted on the upper ends shaft gearing with beyel wheels mounted on the upper ends of two of the vertical spindles, upon the lower ends of which of two of the vertical spindles, upon the lower ends of which are mounted the digging tools, and means for giving motion from the two said vertical spindles to the other vertical spindles, substantially at set forth. (3.) In an implement for digging or cultivating land and breaking up roads and the like, having a cross shaft receiving motion from the engine by means of a chain and chain-wheels, the combina-tion of bevel wheels on each end of said cross shaft giving motion to two vertical spindles carrying digging tools and chains and chain wheels giving motion to the other vertical spindles carrying digging tools, substantially as set forth. (4.) In an implement for digging or cultivating land and breaking up roads and the like receiving motion from the engine by means of a chain and chain-wheels and carried by means of an automatically tilting wheel and chains attached engine by means of a chain and chain-wheels and carried by means of an automatically tilting wheel and chains attached to and passing round a cross shaft at the rear of the machine, the combination of a worm wheel on said cross shaft, a worm on the top of one of the vertical spindles, and a clutch by means of which the worm may be made fast with the machine when it is desired to raise the digging tools, sub-stantially as set forth. (5.) In an implement for digging or cultivating land and breaking up roads and the like having a cross shaft receiving motion from the engine by means of a chain and chain-wheels, the combination of a pair of racks carried by the engine. Jinks pixoted to the digging portion of a chain and chain-wheels, the combination of a pair of racks carried by the engine, links pivoted to the digging portion of the implement, plain wheels carried by the links running in contact with the back of the racks, toothed wheels carried by the links engaging the racks and connected together by a shaft, and means for taking up or preventing any slack in the chain, substantially as set forth. (6.) An implement for digging or cultivating land, as set forth, having digging tools each consisting of a twisted blade, the upper part being approximately vertical and the lower part arranged to enter the soil at an angle, substantially as shown and described. (7.) An implement for breaking up roads and the like, as set forth, having chisel-pointed cutters carried by the lower ends of the vertical spindles, substantially as shown and described.

APRIL 30.]

Claims.—(1.) A railway blade joint as c, having at its butt end a trunnion or axis or pivot formation as d by or on, which it radiates, substantially as and for the purposes sating Director to the Kitson Lighting Company of Great forth and as illustrated in the drawings. (2.) A distance of heel block as g, formed with a semicircular companion recess bearing as for receiving the trunnion of the blade joint as above set forth and claimed, end said block being formed aith a tail or extension piece as j for securing such heel block to the rail as b, substantially as and for the purposes set forth and as illustrated in the drawings. (3.) A rail-plate as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion recess bearing as h, formed with a semicircular companion set and work ing radially as and for the purposes set forth and as a valilary burner or burners above the vaporising-tube, and tor substantially as and for the purposes set forth and as a valilary burner or auxiliary burners adapted to heat the illustrated in the drawings. (4.) A railway blade joint as c, in operative formed respectively in the heel block g and rail-plate h, sub-formed respectively in the heel block g and rail-plate h, sub-formed to a charit or foundation plate as r, and in conjunc-tion with the rails a and b respectively, substantially as das or for the purposes set forth and as illustrated in the drawings. (5.) A railway blade joint as c in operative sid the theore of the adverse as r, and in conjunc-tion the the arails a and b respect

No. 15623.—13th November, 1902.—RICHARD ERNEST stil PENNINGTON, Engineer, and JAMES BELLETT, Stationer, both of 227, Bridport Street, Albert Park, near Melbourne, Vic-toria. An improved locknut-plate for preventing nuts loosen-ing of turning back on fish-plates and the like.\*

Claims. - (1.) A nut locking-plate, formed with holes or recesses to fit over the nuts to be secured, in combination with cesses to fit over the nuts to be secured, in combination with clips secured by holts of said nuts and placed in engage-ment with said plates, substantially as and for the purposes specified. (2.) A nut locking-plate (as A) bearing upon the flanges of the rails, engaging the nuts on the fish-bolts and secured by olips at each end, substantially as and for the pur-poses specified. (3.) A nut locking-plate, fitting between-the lower flats of the nuts and the lower flanges of the rails, in combination with clips pivoted upon the fish-bolts secured inposition by the nuts, and bent over into engagement with said plates, substantially as and for the purposes specified. (Specification, 3s. 6d.; drawing, 1s.)

No. 15717.—4th December, 1902.—HORACE McGOWAN, of 12, Brunswick Street, East Melbourne, Viotoria, Engineer. Improvements in linotype machines.\*

Claims.—(1.) A cam for operating the space-band escape-ment of a linotype machine having&lengthened face, as and for the timing purpose set forth. (a.) A cam for operating the space-band escapement of a linotype machine having an adjustable facing, as and for the purposes indicated. (3) The combination in a linotype machine with a cam having an extended or additional facing for operating the space-band escapement of & series of cams unprovided with such extended or additional facings for operating the maga-zine escapements. (Specification, 2s. 6d.; drawing, 1s.)

No. 15775.-17th December, 1902.-LORENZ KORTLANG, the elder, Cabinetmaker, and ALBERT KORTLANG, Ware, houseman, both of 67, Undercliffe Street, Neutral Bay, near Sydney, New South Wales. An improved extension table.'

Claims.—(1.) Our improved extension table consisting of the combination and arrangement with the main frame of a transverse pieces such as C hexing a slot such as D, a top board having a cross-bar such as H and wings on runners such as L beyelled as at N, substantially as described and explained and as illustrated in the drawings. (2.) In an extension table, the combination with a main top board capable of movement vertically of wings on runners beivelled as at N and sliding in guides such as F, and their free ends (when the wings are extended) being held by a transverse piece for the main frame, substantially as described and explained and as illustrated in the drawings. (3.) In an extension table, the combination with a main frame of a lotted transverse piece secured thereto, a top board capable of movement vertically in said slot, wings on runners sliding in guides and beyelled on their upper sides (where fastened to the wings) equal to the thickness of the top board, the free ends of the said runners being held by the said transverse piece secured thereto, a top board capable of movement vertically in said slot, wings on runners sliding in guides and beyelled on their upper sides (where fastened to the wings) equal to the thickness of the top board, the free ends of the said runners being held by the said transverse piece scured thereto, a top board capable of movement vertically in said slot, wings on runners sliding in guides and beyelled on their upper sides (where fastened to the wings) equal to the thickness of the top board, the free ends of the said runners being held by the said transverse piece scured thereto, a top board capable of the said transverse piece scured thereto, a top board capable of movement vertically in said slot, wings on runners sliding in guides and beyelled on their upper sides (where fastened to the said transverse piece scured thereto, a top board capable of movement vertically in said slot, wings on runners sliding in guides and beyelled and as illustrated in the drawings, ( Claims,--(1.) Our improved extension table consisting of

vapour-burning ap.

vided with two of more burners. and go connected with the said pipe that the frame can be moved so as to bring a mantle mounted over any of the burners into operative posi-tion during action without any but at most a momentary interruption of the illumination. (4.) The device for sub-uting one burner for mother in an incandescence vapour-burning apparatus, constructed, arranged, and operating as described with reference to and shown in Figs. 7 and 8 of the drawings drawings

(Specification, 8s. 6d.; drawing, 1s.)

No. 15964. — 10th February, 1903. — COLERIDGE RIDD, Chemist and Dentist, and CHARLES EDWARD YOUNG, Farmer, both of Eltham, New Zealand. An improved probe for the teats of cows and other animals.\*

Claims. -(1.) A round tapering probe formed of two halves each of which is secured to an arm of a pair of bowed spring arms whose tendency is to keep the two halves close together, in combination with means whereby the two halves may be forced apart for any required distance, as specified. (2.) A pair of bowed spring arms, the ends of which are brought closely together and to which me respectively secured the two semicircular halves of a round tapering probe in combination with a thumb-screw passing through one arm and bearing against the inside face of the other arm, as sod for the purposes set forth. (Specification. 2s. 3d.; drawings, Is.)

No. 16166.—2nd April. 1903.—LEWIS PETER FORD, of 32. Victoria Street, Westminster, London, England, Gentl-man. Improvements in the manufacture of artificial stone bricks.

Claims.—(1.) The continuous process of manufacturing arti-ficial stone bricks and the like, which consists in—1, Auto. matically measuring the lime and sand; 2, conveying the same to 2 pug or mixer; 3, thoroughly stirring and heating the materials; 4, slacking the lime and if necessary wetting the materials in said mixer; 5, conveying them towards one end of the same; and 6, cooling them on their exit prior to their entrance into the brick-making machine, substantially ag set forth. (2.) In apparatus for the manufacture of artificial stone bricks and the like, the combination of automatic measuring apparatus, a mixer, an elevator or elevators to convey the materials from the measuring apparatus to the convey the materials from the measuring apparatus to the mixer. means for heating the mixer, channels for conveying away my water of condensation, means for moistening the naterials, and means far cooling the materials on their exit from the mixer, substantially as set forth. (3.) In apparatus for the manufacture of artificial stone bricks and the like, the methods of artificial stone bricks and the like, the

tating arms arranged in each cylinder, a mixer. an elevator to convey the materials to the mixer, a steam-jacket to sa mixer, a dame. or arch-shaped top to said mixer, a perforated water-pipe arranged in the upper part of said mixer, conduits carried by the upper edges of the casing, an outlet orifice, and a cold-water jacket to such outlet orifice, substantially 88 shown and described. (6.) In apparatus for the manu-facture of artificial stone bricks and the like, the combina-tion of two cylinders, an aperture in the bottom of esoh cylinder, rotating arms arranged in each cylinder, a mixer, an elevator to convey the materials to the mixer, a steam-jacket to said mixer, a dome- or arch-shaped top to said mixer, a perforated water-pipe arranged in the upper part of mid mixer, conduits carried by the upper edges of the casing. a shaft running in suitable bearings, mixing arms on said a shaft running in suitable bearings, mixing arms on sad shaft, an cutlet orifice, and a cold-water jacket to such cutlet orifice, substantially as shown and described. (Specification, 4s. 6d.; drawing, 2s.)

No. 16167 .- 2nd April, 1903 .- RAYMOND CONCRETE PILE No. 16167,---2nd April, 1903,---KATMOND CONCRETE FILE COMPANY, a corporation organized under the laws of the for State of New Jersey, having its offices at 135, Adams Street, Chicago, Cook, Illinois, United States of America, Manu-facturers (assignees of Alfred Augustus Raymond, of 135, Adams Street aforesaid, Engineer). Improvements in piles and method of forming the same.

Claims. -(1.) The method of forming a pile consisting in sinking a shell and filling such shell with a suitable filler during the sinking operation. (9.) The method of forming pile consisting in sinking a series of shell-sections section by section and filling the same with a suitable filler. (3.) The method of forming a pile consisting in sinking a series of shell-sections by means of fluid jetting and filling the same with a suitable filler. (4.) The method of forming a pile consisting in arranging around a tip to be sunk a series of shell-sections which engage each other to form a shell of tubs, sinking said tip and shells and filling the shell with a suitable filler. (5.) The method of forming a pile in arranging around a tip to be sunk a series of sections of a tapering shell adapted when extended to engage each other to form a continuous shell, sinking said tip and shells by fluid-jetting and filling said shell with a suitable filler during the sinking operation. (6.) A pile consisting of a shall or the sinking operation. (6.) A pile consisting of a shall or covering composed of a plurality of nested sections adapted the shifting composed of a plurality of nested sections adapted for longitudinal distribution and interlocking engagement when so distributed so as to form a continuous shell, and a suitable filler within such shell. (7.) A pile consisting of a shell or covering composed of a plurality of nested sections arranged for interlocking engagement to form a continuous shell, a tip connected to the innermost section, and a suitable filler within the shells. (8.) A pile consisting of a shell or covering, a suitable filler therein, a tip arranged at the lower end of the shell, and a pipe connected to such tip and ex-tending longitudinally of the filler. (9.) A pile consisting of a shall or covering composed of a plurality cf nested sections arranged for interlocking engagement to form a continuous shell, a tip connected to the innermost section, a suitable filler within the shell. and a pipes connected to the tip and extending through the filler. (Specification, 5s, ; drawing, Is.)

NC. 16205. - 8th April, 1903. -ALEXANDER VANGELLI MANIACHI, of 369, Old Exchange, Collins Street, Melbourne, Victoria, Mercantile Broker. A" improved stove for heating irons and the like.

Claims.— (1.) Stove for hating irons, comprising a furnace and an outer chamber with cover, with a space between fur-nace and chamber for the irons to be heated, substantially as and for the purposes described. (2.) Stow far heating irons, comprising a furnace and an outer chamber with cover, with a space between furnace and chamber for the irons to be heated, and means for revolving the stove upon a stand, substantially as and for the numers described... (2.) Stow be heated, and means for revolving the stove upon a stand, substantially as and for the purposes described. (3.) Stove for heating irons, comprising a furnace A with chimney B and fire-bars A', an outer vessel D with gaps D', and a cover C with opening C', and means for feeding stove with fuel, substantially as and for the purposes described. (4.) Stove for heating irons, comprising furnace A with fire-bars A', an outer vessel D with gaps D', a cover C with opening C', a chimney B with opening B' and hopper F, frame H H' carrying ash tray K and runners J and a stand L, substantially as and for the purposes described. (5.) The combination and arrangement of the whole of the parts for the purposes described and substantially as illus-trated on the sheet of drawings. (Specification, 3s.; drawing, 1s.)

No. 16206.—8th April. 1903.—JULIUS RIBBERT, of Haus d Hünenpforte at Holthausen, Kreis Hagen, Westphalia, Prussia, German Empire, Manufacturer, and Counselor of Commerce, Improvements in the manufacture of fabrics hi Commerce. Improve coloured with indigo.

Claims.-(1.) In the indigo printing process, the employ-ment of the ordinary paste resists commonly used in printing blue, instead of wlphur pastes as heretofore exclusively used, and, if desired, with other resists or chemical discharges. (2) The process for producing any kind of indigo goods with dark face side and lighter-tinted back side, irrespective of the colouration of the front side, which process consists in impregnating the goods in the well-known manner with ducose and printing on the same with the paste resist usually employed in the process for printing blue, and, if desired, with the addition cf other resists or discharges, and then covering one side with indigo, or printing the same on this side wholly or in part, the indigo thus applied to the fabric being then reduced in the continuous steamer, then being introduced into the continuous vat, and being there-re dyed until the desired colouration of the back side is obtained, and finally washing and treating with acid in the usual manner. usual manner.

(Specification, 75, Ed.)

No. 16207,-8th April. 1903.-UNITED SHOE MACHINERY Coma-~, of Paterson, New Jersey, United States of America, a corporation duly organized under the laws of the said State or New Jersey, and having a place of business at 205, Lincoln Street, Boston, Massachusetts, United States of America aforesaid (assignee of Benjamin Franklin Mayo, of Salem, Essex, Massachusetts aforesaid, Inventor). Improvements n or relating to machines for attaching the heels of boots and shoes.

Claims.—(1.) In a heel-nailing machine, the combination with a nail-carrier and a gate therefor of a nail-guide, sub-stantially as and for the purpose described. (2.) In a heel. with a nail-carrier and a gate therefor of a nail-guide, sub-stantially as and for the purpose desoribed. (2.) In a heel, nailing machine, the combination of a nail-receiver having a chamber at one side, a nail-gauge entering said chamber, and means, substantially as described, to sustain ssid nail-gauge at a distance from one face of the receiver. (3.) In a heel, nailing machine, the combination with pail-driving mechan-ism of a nail-carrier, substantially as described, provided with a gate and a nail-guide, and means to actuate the gate when the carrier is moved into nail-delivering position to permit the nails to pass through the nail-guide to the nail-driving mechanism. (4.) In a heel-nailing machine, a nail-carrier, sub-stantially as described combined with a nail-gage adapted to be removably supported by the nail-carrier to provide for nails of different lengths. (5.) In a heel-nailing machine, the combination with a plate such as D<sup>1</sup> and a contact piece on said plate of a " actuator yieldingly sustained for the purpose described and serving to move said plate to put the heel-holding part thereof in operative position. (6.) In a heel-nailing machine, the combination with a nail-carrier of a nail-gauge, a nail-guide, and a gate, substantially as and for the purpose described. (7.) In a heel-nailing machine, the combination with a yielding catch and a top-lift and heel-carrying plate engaged by said catch of tripping means actuated by said catch while a heel is being attached to a shoe, said tripping means releasing the catch after the heel has been attached, substantially as described. (3.) The im-provement in heel-nailing machines substantially as and for the purpose described with reference to Figs, 2, 4, 8, and 9 of the drawings. (Specification, 16s.; drawing, 3s.)

No. 16208.—8th April, 1903. — JAMES ALSTON. of Maffra Street. South Melbourne. Victoria, Windmill-manufacturer. An improved motion-changing gear for windmills.

Claims. -(1.) In an improved motion-changing gear for windmills. a cross-shaft above a hole in the frame, said cross-shaft having a sleeve on the middle thereof, in com-bination with one end of a guide-rod each Bide of the said sleeve, one end of a connecting-rod outside each guide-rod, the other end of said guide-rod being pivoted to a cross-pin secured to an extension of the frame, all as and for the pur-poses described and as illustrated in the drawings. (2.) In an improved motion-changing gear for windmills, two con-necting-rods the lower ends of which are pivoted to orank-pine, the inner ends of said crank-pins working loosely within crank-pin holes in a crank-arm and toothed-wheel respec-tively. in combination with a countershaft, said countershaft having an intermediate portion rotating in a bearing, all as and for the purposes described, and as illustrated in the drawings. (3.) In an improved motion-changing gear for windmills, a crow-shaft having the top end of connecting-rods locked et each of its ends, guide-rods pivoted to said

#### **APRIL 30.1**

1099

cross-shaft inside said connecting-rods, a sleeve between said guide-rods, which sleeve has at the top thereof a lubricator-box and at the bottom thereof a pump-rod, said pump-rod passing through a hole in the frame, the lower end of said connecting-rods being pivoted to crank-pins, all as and for the purposes described and as illustrated in the drawings. (4.) In an improved motion-changing gear for windmills, a countershaft having an intermediate portion rotating in a bearing integral with or detachable from a frame having a vertical passageway or hole therethrough, over-hanging portions at each end of the said shaft, in combina-tion with a toothed wheel on one end of said countershaft having therein two or more grank-pin holes radially ar-ranged, sad on the other end a crank-arm having two or more holes therein, said holes being in alignment with those described and asillustrated in the drawings. (5.) An improved motion-changing gear for windmills, consisting of a windwheel sleeve having a toothed pinion thereon driving a toothed wheel secured to an overhanging shaft, said wheel having therein two or more radially arranged crank-pin holes, the interwediate nortion of the ead overhanging shaft, trating sheeve having a toolned philoi thereon driving a toolned wheel secured to an overhanging shaft, said wheel having therein two or more radially arranged crank-pin holes, the intermediate portion of the said overhanging shaft rotating within a bearing on the windwheel frame, in combination with a crank-arm secured to an extended overhanging por-tion of the aforesaid shaft, and having therein radially arranged orank-pin holes in a similar plane to those afore-said, the lower ends of connecting-rods attached to the outer ends of ormk-pins, the inner ends of which crank-pins are within the toothed wheel and crank-arm respectively, the upper end of said connecting-rods being secured to the outer ends of a cross-shaft, guide-rods pivoted to said cross-shaft and to an extension of the frame, a sleeve pivoted to said cross-shaft between the said guide-rods to the bottom of: which is attached the upper portion of the pump-rod and tc the top of mid sleeve a lubricator-boa, all as and for the, purposes described and as illustrated in the drawings. (Specification, 4s.; drawing, 1s.)

No. 16209. - 8th April, 1903. - GEORGE HARBY HAVES, of 61, Guildford Street, Russell Square, London, England, Engineer. Improvements in pneumatic drills and like machines.

Classes. -(1.) In a hand portable pneumatic tool of the type set forth, an axially oscillating, controlling, and reversing valve, consisting of a single part arranged across of at right angles to relatively tied cylinders, a sleeve on the machine handle and means operatively connecting said valve and the sleeve whereby the valve may be moved longitudinally for the purpose of reversing the revolution of the crank-shaft and i tool. (2.) In a portable pneumatic drilling-machine, com prising at least two sets of fluid-pressure cylinders in each set and the cylinders in one set arranged substantially at right angles with the cylinders in the other set, a central transverse fluid-pressure passage in the machine body between the sets of parallel cylinders, two controlling valve chambers between and at right angles to the parallel set of cylinders and to the fluid-pressure passage, a partially rotating cylindrical valve in 2 fuid-pressure passage in the machine body between the sets of parallel jets to the parallel set of cylinders and to the flid-pressure passage. a partially rotating cylindires and to the and its chaust from the cylinders, and means on the machine-handle operatively connected to said valves so & to move both salves simultaneously for reversing the working of the machine. substantially as set forth. (3.) A hand portable pneumatic of cilling means on the machine saign of body formed in one casting, comprising at least four flid-pressure cylinders arranged transversely to and between the pairs of cylinders, a central transversel in the pairs (wo controlling dive-chamber arranged transversely to and between the pairs of cylinders, a central transversel to a collasting, controlling, and reversing valve o means connected to kalsev on the machine-hasit of a single bollow part arranged transversely to and between the pairs (wo controlling dive-chamber arranged transversel to controlling the admission of pres-and its exhaust from & Apair of cylinders, ac collar sild operatively connected to kalsev on the machine-hadde all substantially as described with reference to the drawing is.) No. 16226.—156h April, 1903.—WILLIAM DUBHAM San-tawr, of 170, Broadway, New York, United States of marine, Maxima and for the purposes specified. (4) In a portable pneumatic drilling machine, the combination with the crank-shaft for pair of cylinders, means connected with the crank-shaft for socilasist in orning the valve and ad ouble set of marine substantially as described with reference to the drawing and for the purposes specified. (5) In a portable pandle for moving the valve long that arranged transversely to and for the purposes set forth. (5.) In a portable mandle for moving the valve long that arranged transversely to and for the purposes set forth. (5.) In a portable panetation of the purposes set forth. (5.) In a portable mandle acting and the the drawing substantially substantially as described with the erank-shaft for valve, c

pscillating the valve, snd means connected with the machine-handle for moving the valve longitudinally, a double set of inlet ports connecting with the interior of the valve, a double set of exhaust passages having substantially the form and ar-rangement illustrated in Figs. 6, 12, and 15 of the draw-ings, all operating substantially as and for the purposes set forth. (6.) In a portable pneumatic tool, substantially as set forth and claimed, an oil-bath gear-case, comprising an annular section or part 58 detachably connected to the machine body, an annular cover part or neck 584 detachably connected to the machine body and to the gear-case, and duid-pressure exhaust ports in the gear-case and cover, said ports registering with the controlling valve-chambers in the machine body, substantially as described and illustrated in Figs. 3 and 16 of the drawings. (Specification, 13s.; drawings, 4s.)

No. 16211.--6th April, 1903.-Louis Joseph Renor, of Auch, France, Manufacturer. Improvements in boilers for cooking purposes.

Claims.—(1.) A boiler of the class described, consisting of a receptacle and cover of the form of a pointed arch, which, being surrounded by a cylindrical casing, is fixed to the latter, substantially as described. (2.) A boiler of the class described and referred to in the first claiming clause, having between its receptacle and cover, which both are tightly united by means of flanges and screw-bolts, a channel-like place for receiving the condensed water generated in the boiler. substantially as described. (3.) A boiler of the class described and referred to in the preceding claiming clauses, having a double bottom with a steam inlet and outlet cock and an outlet tube with a cock fixed to the principal bottom of the boiler, substantially as described. (Specification, 3s. 3a.; arawing, 1s.)

No. 16221.—7th April, 1903.—ROBERT LOUIS HOWELL MURBAY, of 193, Karangahape Road, Auckland, New Zea-land, Electrician. Improvements in acetylene-gas generatore

-(1.) The construction of an automatic water-Claims. Claims.—(1.) The construction of an automatic water-supply valve, weighted rod, and tsp connections. (2.) A car-bide crate so arranged in compartments with a vertical ledge which allows the water to operate upon the carbide in one at a time, then passing to the next compartment. (3.) A vertical pipe fixed in dome of gas-holder to act 38 a safety valve. (4.) The manner in which the generating-chamber door is made gastight by a projection in the door pressing in a rubber bend inserted in a dovetailed groove in the opposite face. (5.) The arrangement of filter and puri-fier, and the general construction and combination of parts, as set forth in the drawings and specification. (Specification, 4s. 3d.; drawing, 1s.)

No. 16293.—16th April. 1908.—JAMES PALMEE CAMPRET., of Wellington, New Zealand? Solicitor (nominee of Charles Felton Scott, of 124, Elysian Street, Pittsburg, Pennsyl-vania, United States of America, Electrical Engineer). Improvements in alternating current electrical apparatus.

Claims.-(1.) In the operation of single-phase alternating current electric motors., means for maintaining a constant ratio between the current in the armature and in the field magnet winding of the motor, and at the same time supply-ing said win dings with different amounts of current. (2.) An arrangement for operating single-phase alternating ourrent electric motors in which one element of the motor is supplied from the secondary winding of a transformer in-cluded in the supply circuit and the other element of the motor is either included in the supply *circuit* or is supplied from mother secondary winding on the transformer supply-ing the first element or from the secondary of another transformer connected in series with the first transformer. (3.) Systems of supplying energy to single-phase alternating current electric motors arranged and operating substantially as described with reference to the drawings. Claims.-(1.) In the operation of single-phase alternating As described with reference to the drawings. (Specification, 5s. 6d.; drawing, Is.)

No. 16234.—16th April, 1903.—COOPER-HEWITT ELECTRIC COMPANY, a corporation organized "der the laws of the State of New York. of 120, Broadway, New York, United States of America, Manufacturers (assignees of Peter Cooper Hewitt, of 11. Lexington Avenue, New York aforesaid, Scientist). Improvements in electric gas or vapour lamps.

Scientist). Improvements in electric gas or vapour lamps. Claims.—(1.) An electric lamp of the kind described having a solid or non-gaseous conductor for the purpose of connect-ing the electrodes, which connection is broken in order to start the lamp. (9.) A" electric lamp of the kind described in which one of the electrodes is movable and can be brought into contact with the other electrode. being automatically withdrawn for the purpose of starting the lam." (3.) This modification in which both electrodes are arranged to be con-nected with and disconnected from a solid conductor within the lamp, one of the said electrodes being arranged to be dis. connected from said conductor before the connection with the other electrode is severed. (4.) In an electric lamp of the kind described, the provision of means for cutting out the substantially as described. (5.) In an electric lamp of the kind described! a solid heating conductor inside the lamp acting to furnish initial heat to the lamp and carrying no current when the lamp is in operation. (6.) Electric gas or vapour lamps constructed and operating substantially as de-scribed with reference to the drawings. (The structure of the structure to the drawings. scribed with reference to the drawings. (Specification, 9s. ; drawings, 2s.)

No. 16239.—17th April, 1903 — ADOLDHUG JAMES PARK. Engineer, and HERBERT MATHIAS THORPE, Analyst, both of Ngaruawahia, Auckland, New Zealand. Improved weigh-ing and delivering apparatus more particularly adapted for weighing milk and other liquids.

Claims.—(1.) The apparatus for the purpose indicated, consisting of the parts arranged, combined., and operating substantially as specified. (2.) In apparatus for the remove indicated, a trough pivotally supported above a tank and of Chri divided into two compartments, the trough being removably mounted "pan the pivot-spindle by uprights projecting from said spindle fitting into sockets "pan the sides of the trough, substantially as specified and illustrated. (3.) For the pur-pose indicated, in combination, a pivotally-supported trough lock.

round a quantity of malleable metal, placing a series of divided into compartments, one unon each side of the nivot. mid briquettes in a mould and casting softer metal therein is the movel of the movel backs, substantially as described. (4.) The the purpose indicated, in combination, a quantity of expanded metal and casting thereon a quantity of expanded metal and casting thereon a quantity of a substantially as described. (5.) A brake-shoe means far conducting liquid to the trough and from gaid compartments alternately, an arm fixed upon therein, and pouring in soft cast metal having inbedded tank, substantially as specified and illustrated. (5.) For the therein a quantity of malleable metal. (6.) A brake-shoe trough divided into compartments, one upon each side of the pivot. a tank receiving liquid from each of said compartments alternately, an arm fixed upon therein, and pouring in soft cast metal having imbedded tank, substantially as specified and illustrated. (5.) For the therein a side soft metal, and briquettes con- purpose indicated in combination, a pivotally-supported taining a quantity of malleable metal. (6.) A brake-shoe trough divided into compartments, one upon each side of comprising a back of hard cast metal, and as bicks being inbedded tank, substantially as specified and illustrated. (5.) For the pivot, a tank receiving liquid from each of said compartments, one upon each side of comprising a series of malleable metal. (6.) A brake-shoe trough divided into compartments, one upon each side of comprising a back of thard cast metal, and blocks being annealed as the soft metal sid Mocks themelves containing a frame-work the movement of the trough, a disc frade to be patchet. (5.) For the comparison of the disc, a supply-vat, a plug-valve therein, a pipe conducting liquid to the trough, alternate to close, sub-stantially as described. (5.) For the probability as described. (5.) For the probability as described d. (5.) For the comparing the body of the shoe. "(7.1 A soft as the soft metal is pour

No. 16940.—15th April, 1903.— FREDERIC EDMUND BOW-MAN, of 34, Spinning Field, Deansgate, Manchester, Lan-caster, England, Chemist. Improvements in gas-producing plant.

Claims.-(1.) In combination, a gas-engine connected to a vertical generator having "ear its top an annular boiler pre-ferably fitted with Field tubes depending from it. a movable furnace-grate and means for raising and lowering the same, coiled pipe forming an auxiliary boiler fitted near the bottom of the generator and connected to the annular boiler, con-nections from the steam space of the boiler with the chamber at the bottom of the generator connections from the generator nections from the steam space of the boiler with the chamber at the bottom of the generator, connections from the gene-rator through a scrubber to the cylinder of the gas-engine, and connections from an sir-chamber bested by the exhaust from the gas-engine to the steam space of the boiler, all sub-stantially as shown and described. (2.) The combination with a gas-engine and a vertical gas generator fitted with an annular boiler of a furnace-grate contained in an airtight chamber, and arranged to be raised and lowered, whilst the -chamber is closed, by means of a hand lever, all substan-tially as set forth. (Specification, 3s, 3d.: drawing, Is.)

(Specification, 3g. 3d.; drawing, Is.)

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 bee" inserted after the notice of each application. A" order for a copy or copies should be accompanied by a post-office order or postal note for the cast of copying, The date of acceptance of each application is given after the number

the number. Extracts from the drawings accompanying the foregoing complete specifications appear at the end of this *Gazette*. J. 0. LEWIS.

Deputy Registrar.

#### Provisional Specifications.

Patent Office, Wellington, 29th April, 1903. PPLICATIONS for Letters Patent, with provisional A specifications, have been accepted as under :-No. 15028.-28th March, 1903.-EMILY SAXTON, of "Oak-land," Stoke, Nelson, New Zealand. An improved cycling-cauntiet.

gauntlet

No. 15319,-28th August, 1902,-CLARENCE SAWYER, of Wellington, New Zealand, Painter. An improved paint-brush binder

No. 16195.—6th April. 1903.—GEOFFREY PORTER, of Ash-burton, Canterbury. New Zealand, Cycle Agent. A" im-proved chain-drive specially adapted for motor bicycles and cars.

No. 16213.-8th April, 1903.-WILLIAM LACEY CLEVELAND,

No. 16213.- Cth April, 1903.- WILLIAM LACEY OLAVELAND, of 259, Fitzroy Street, Fitzroy, Victoria, Carpenter. An inducer or parlour game. -No. 15291.4 ...7th April, 1903.-WILLIAM GEORGE JESSON, of Christchurch, New Zealand, Railway Employee. Device for holding doors ajar. No. 16215.--7th April. 1903.-CHARLES NUNN SCURB, of Dunedin, New Zealand, Student (nominee of Robert Noble Adams, of Dunedin, New Zealand. Publisher). Window. lock.

No. 16216.—7th April, 1903.—JOHN KELLY, of Palmerston, Otago, New Zealand, Engine-driver. A new railway bicycletrolly.

trolly.
No. 16218.—8th April, 1903.—DUNCAN FRASER, of Goodall Street, Caversham, New Zealand, Butcher. Improved indelible branding of carcases of meat.
No. 16219.—9th April, 1903.—JOHN ROBERT WALSH, of Halswell, New Zealand, Banner. An improved potatodigger which is utilisable for other analogous purposes.
No. 16220.—8th April, 1903.—WILLIAM WATERS, of Auckland, New Zealand, Farmer. An improved siphon.
No. 16222.—14th April, 1903.—ARTHUR FREDERICK GUNGALL, of Hawera, New Zealand, Photographer. An improved mitre shooting-block, for use in picture-framing or the like. the like.

No. 16223 .-- 14th April, 1903.-- JOHN HESSEY, of Otago, New Zealand, Ironmoulder. Improved means for locking

New Zealand, Ironmoulder. Improved means for locking the sashes of windows. No. 16225.--14th April, 1903.-THOMAS QUARTERMAINE EAST, of Napier, Hawke's Bay, New Zealand, Master Mariner. Improvements in ships' ventilators. No. 16227.--15th April, 1903.-THE AUSTRALIAN EX-PLOSIVES AND CHEMICAL COMPANY, LIMITED, of 138, Queen Street, Melbourne, Victoria, Manufacturers (assignees of Herbert William Gepp, of Deer Park, near Melbourne afore-said, Analytical Chemist). An improved device for use in draining rackanock cartridges.

draining rackarock cartridges. No. 16228.—15th April, 1903.—ALONZO JOHN KINGSBEER, of Palmerston North, New Zealand, Coachbuilder. Improve-

ments in bricks. No. 16229.—15th April, 1903.—UNITED SHOE MACHINEBY COMPANY, of Paterson, in the State of New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having a place of busi-ness at 205, Lincoln Street, Boston, Massachusetts, United States of America aforesaid (assignees of Louis Amédée Cas-grain, of Winchester, Middlesex, Massachusetts aforesaid, Inventor). Improvements in or relating to nurling or analo-gous machines. No. 16282.—16th April 1903.—Gwoner Sware Market

No. 16232. – 16th April, 1903. – GEORGE SMITH MORISON, of White Hills Road, Bendigo, Victoria, Tramway-manager. Improvements in steam-engines.

Improvements in steam-engines. No. 16236.—16th April, 1903.—JAMES HENRY POMEROY, of Invercargill, Southland, Now Zealand, Fishmonger Im-provements relating to hat-fasteners. No. 16237.—16th April, 1903.—CHARLES LEONARD STOKES, of Wellington, New Zealand, Cabinetmaker. Improved means for balancing window-sashes. No. 16238.—15th April, 1903.—HENRY CURRIE, of Gis-borne, New Zealand, Settler. A remedy to destroy the growth of cancer and cancerous growths in the human subjects. &c.

subjects, &c. No. 16243.—15th April, 1903.—GEORGE WILLIAM LINCOLN MACKAY, of Awaroa, New Zealand, Farmer. Automatic signalling-target.

No. 16244.—15th April, 1903.—George WILLIAM LINCOLN MAUKAY, of Awaroa, New Zealand, Farmer. Improved saddle cloth.

Saune-cloth.
 No. 16245. — 15th April, 1903. — THOMAS WHITEHORN, of 19, Munro Street, Coburg, Victoria, Mechanic. Improved machine for trimming the ends of hand-made cigarettes.
 No. 16246. — 15th April, 1903. — THOMAS GOODALL, of Albertown, New Zealand, Rabbiter. Improvements in animal-trans

Albertown, New Zealand, Rabbiter. Improvements in animal-traps. No. 16247.—16th April, 1903.—JAMES ABKLIE ROLLO, of Medbury, New Zealand, Farmer. An improved fencing-staple. No. 16248.—16th April, 1903.—ANDNEW MILLER LEGGE, of Christchurch, New Zealand, Plumber. Improved lubri-cating-device for vehicle whoels. No. 16250.—17th April, 1903.—ERNEST Moss, of Christ-church, New Zealand, Engraver. Machine for weighing and tallying carcases and other objects, recording the weights and hrands and also the aggregate number and weight of

and brands, and also the aggregate number and weight of each brand

No. 16252.---20th April, 1903. - Louis Phillips, of Hoki-tika, New Zealand, Mechanical Engineer. A centrifugal tailings and sand pump.

tailings and sand pump. No. 16254.—20th April, 1903.—ROBERT WALKER ASH-CROFT, Tinsmith, WILLIAM JOHN MADDREN, Mechanic, and SEPTIMUS ASHCHOFT, Store-manager, all of Wellington, New Zealand. An improved collapsible box or packing-case. No. 16255.—22nd April, 1903.—SAMUEL LINTON, of Strath-more, Taranaki. New Zealand, Labourer. Improved means for retaining window-sashes at any desired height. No. 16257. — 22nd April, 1903. — FRED WILKINSON, of Britannia Street. Petone, Wellington, New Zealand, Ware – houseman. Improved apparatus for pulling-out or separating the fibres and strands of wool, cotton, and all textile fabrics, and also flax and the like. and also flax and the like.

No. 16260.—17th April, 1903.—ALEXANDER PETEBSON, of Earn Street, Invercargill, New Zealand, Plumber, and John PETERSON, of Mary Street, East Invercargill, Plumber. Im-provements in skylights.

No. 16261.—17th April, 1903.—ANDREW JOHN PARK, of Dunedin, New Zealand, Registered Patent Agent (nominee of Horatio Nelson, of Wellington, New Zealand, Company Manager). Means for increasing the saleability of goods. No. 16262.—17th April, 1903.—GEORGE WESLEY WHITE, of the Fire Station, Droop Street, Foolscray, Victoria, Fire-man. An improved hose coupling. No. 16265.—21st April, 1903.—WILLIAM HUTTON CHAM-PION, of Harkers Street, Grey Lynn, Auckland, New Zea-land, Master Mariner. An improved harpoon. No. 16267.—24th April, 1903.—WILLIAM COUSENS, of 112, Bay Street, Glebe, near Sydney, New South Wales, Clerk. An improved windmill.

112, Bay Street, Glebe, hear Sydney, New South Whee, Clerk. An improved windmill. No. 16268. – 24th April, 1903. – WILLIAM AUGUSTINE COLLINS, of Wellington, New Zealand, Gardener. Improved means of hanging clothes on clothes-lines. No. 16269. – 25th April, 1908. – WILLIAM FREDRECK MEYENBERG, of Tairua, Auckland, New Zealand. Deep-water diving-apparatus.

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

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

J. C. LEWIS, Deputy Registrar

#### Letters Patent sealed.

IST of Letters Patent sealed from the 16th April to the 29th April, 1903, inclusive :---Nil.

J. C. LEWIS, Deputy Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES,

No. 11560.-W. E. Hughes, preservation of milk, &c. (T. K. Freeman-T. Eves.) 22nd April, 1903. No. 11560.-W. E. Hughes, preservation of milk, &c. (T. K. Freeman-T. Eves.) 22nd April, 1903. No. 11564.-A. H. Bowell, house-block. 21st April, 1903. No. 11566.- A. Kitson, vapour burning lamp, &c.

No. 11566. A. Kitson, vapour burning lamp, &c. 24th April, 1903.

No. 11583.-S. R. Dresser, insulated pipe-coupling.
 15th April, 1903.
 No. 11049.-Bickford and Huffman Company, agricultural implements. (E. Baseman.) 22nd April, 1903.
 No. 11682.-J. Gommesen, fat-separating apparatus.

15th April, 1903.

No. 11800.--H. Lyon and J. B. Talbot-Crosbie, refrigerat-ng-apparatus. 22nd April, 1903. No. 12291.-H. V. Simpson, rendering wood non-inflam-version of the second se nable 22nd April, 1903.

THIRD-TERM FEES.

No. 8429.-J. H. Kellogg, radiant heat-bath. 24th April,

**1903. No. \$430.—J. H.** Kellogg, alimentary product. 24th April, 903

J. C. LEVIS, Deputy Registrar,

Subsequent Proprietors, &c., of Letters Patent registered.

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

The date is that of registration.] N 0. 13614.-J. Grice and W. A. Robertson, both of Mel-bourne. Victoria. Metal and concrete structure. Registered as 'licensees of the full and exclusive license to make, use, exercise, and "end the invention within the Colony of New Zealand for the terms and upon the con-ditions stated in Indenture made between the Colonial Ferro Concrete Syndicate (Limited) and James Grice and William Affleck Robertson. [Colonial Ferro Concrete Syndi-cate (Limited)-G. L. Mouchel.] 22nd April, 1903.

J. C. LEWIS, Deputy-Registrar.

#### Applications for Letters Patent abandoned.

# LIST Of applications for Letters Patent (with which provisional specifications only have been filed) abandoned from the 16th to the 29th April, 1903, inclusive :om the 16th to the 29th April, 1903, inclusive ;----No. 15009.--G. F. Dale, date and score indicator. No. 15011.--N. Ross. coupling-hook, &c. No. 15012.-G. Carrington, bacon-slicer. No. 15015.-A. Butler, fly-trap. No. 15017.-R. H. Bedford, fire-alarm. No. 15018-C. D. Brent, boot-fastening. No. 15018-C. D. Brent, boot-fastening. No. 15018-C. Bills, bottle-holder. No. 15020.--C. Bills, bottle-holder. No. 15023.--E. Walker, non-refillable battle. No. 15026.-F. w. Preddy, window-fastener, No. 15026.-A. C. Whitney. ride. shooting. audet.) No. 15029. - A. C. Whitney. ride. shooting. (F. M. Gaudet.) No. 15031. - E. T. Towgood and F. H. Haselden, trapping rats, &c. A. E. Niccolls, converter-furnace. No. 15033.— A. E. Niccolls, converter-furnace. No. 15036.—T. A. Trumble, staple for wire fence. No. 15036.—T. A. Trumble, staple for wire fence. No. 15037.—J. W. Rooney, fire-escape. No. 15042.— S. Priest, jun., hub-brake and free-wheel. No. 15043.—L. J. Bizet, receptacle foe gas under pressureNo. 15050.—A. F. W. Lorie, sash-fastener. No. 15050.—A. Williams, wire-strainer. No. 16054.—G. H. Longdin, buckle for fastening mail-bag No. 15059.—J. Pomeroy, sewing-thimble. No. 15060.—J. Pomeroy, sewing-palm. No. 15067.—J. M. Armour, chair and step-ladder. J. C. LEWIS, Deputy Registrar. The word

Applications for Letters Patent lapsed.

L IST of applications for Letters Patent (with which com plete specifications have been lodged) lapsed from the 16th to the 29th April, 1903, inclusive :--No. 14133.-R. Cresswell, finger of reaper-machine. No. 14138.-F. Cook and J. Symons, filtering-apparatus. No. 14141.-J. A. Tiller and F. S. Yates, half-sole. No. 14166.-E. Sprey, boot-fastening.

J. C. LEWIS, Deputy Registrar.

Letters Patent void.

IST of Letters Patent void through non-payment of inclusive: --

THROUGH NON-PAYMENT OF SECOND-TERM FEES. No. 11823.--J. Bastick, calcium carbide manufacture. No. 11824.-The Intractable Ore Treatment Company.

No. 11324.—The Intractable Ore Treatment Company,
 Limited, treating arsenious sulphurous ore. (E. Peterson.)
 No. 11330.—H. Franks, device for attracting attention.
 No. 11333.—R. J. Moss, acetylene-generator.
 No. 11334.—F. Rathbone, S. Bates, and W. Miner, har-

- ness. No. 11340.-J. Macalister, string binder harvester.
- No. 11341.-G. D. Burton, unhairing hides. No. 11342.-G. D. Burton, tanning hides.

No. 11345.-J. Baird, rotary engine.

THROUGH NON-PAYMENT OF THIRD-TERM FEES. No. 8214.-W. Cutten, winch for dredge.

> J. C. LEWIS. Deputy Registrar.

Applications for Registration of Trade Marks.

Patent Office, Wellington, 29th April, 1903. PPLICATIONS for registration of the following trade A 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 : 4075. Date: 29th January, 1908.

The word

Lysoform

TRADE MARK.

LYSOFORM GESELLSCHAFT MIT BESCHEÄNKTER HAFTUNG, of 16, 'riedrichstrasse, Berlin, in the Empire of Germany, Manu-facturers of Pharmaceutical and Chemical Preparations.

No. of class : a. Description of goods: Disinfectants.

No. of application : 4145. Date: 24th March, 1903.

TRADE MARK.



NAME.

SAMUEL BARRY, of The Square, Palmerston North, in the olony of New Zealand, Optician.

No. of class: 8 Description of goods : Spectacles.

No. of application : 4159. Date: 9th April, 1903.

TRADE MARK.

The words

### FLORIDA WATER.

It is claimed that this mark has been in use for some years prior to the 13th November, 1879.

NAME.

The person or persons trading as LANMAN AND KEMP, of New York, United States of America, Wholesale Druggists.

No. of class: 48. Description of goods: Liquid perfume or scent.

No. of application : 4162 Date: 15th April, 1903.

TRADE MARK. The word

CARFAX.

NAME.

BARRAUD AND ABRAHAM, of Palmerston North, New Zealand, Merchants.

No. of class : 42. Description of goods: Tea. April 30.]

The words

land, Merchants.

No. of class : 42.

No. of application: 4163. Date: 15th April, 1903.

TRADE MARK.

ROYAL STANDARD.

NAME.

Description of goods: Food products and tea.

BARRAUD AND ABRAHAM, of Palmerston North, New Zea-

No. of application : 4168. Date: 18th April, 1903.

The word

UTU.

TRADE MARK.

NAME.

HOWARD BUTTERS AND THOMAS MOORE HICKMAN, of Have-lock North, New Zealand; Duoro House, Waterloo Road, Wolverhampton, England (trading as "Butters and Hick-man," of Havelock North, New Zealand, and Wolverhampton, England).

No. of class: 2. Description of goods : Weed destroyers, &c.

No. of application: 4166. Date: 17th April, 1903.

Theword

## TRADE MARK.

HAWK.

NAME.

BEATTIE, LANG, AND CO., of 7, Featherston street, Wellington, New Zealand, Produce-exporters.

No. of class: 42. Description of goods : Dairy produce.

No. of application : 4169. Date: 18th April, 1903.

TRADE MARK.

#### Theword ZIERIETELLE.

NAME.

HOPEFUL BARNES GIBBONS, of Wanganui, New Zealand, Clerk.

No. of class : 49. Description of goods: Table-games.

No. of application: 4167. Date: 17th April, 1903.

TRADE MARK.



The essential particulars of this trade mark are (1) the words "The Century "; (2) the conjoined initials "L" and the device.

NAME. JAMES LOVE, of Green Island, Otago, New Zealand, Cyclemanufacturer.

No. of class: 22. Description of goods : Bicycles. No. of application : 4172. Date : 24th April, 1903.

TRADE MARE.



The essential particulars of this trade mark are the word "Moa" and the device of a moa; and any right to the ex-clusive use of the added matter is disclaimed.

NAME.

W. R. CAMERON \*ND CO., LIMITED, of 194, Princes Street, Dunedin, New Zealand, Exporters.

No. of class: 42.

Description of goods: Butter, cheese, hams, bacon, con-densed milk, cream, poultry, and rabbits.

The word

No. of application: 4173. Date 24th April, 1903.

#### TRADE MARE.

#### LOFOTOL.

NAME.

SOUTHALL BROS. AND BARCLAY, LIMITED, of 19, 20, and 21, Lower Priory, Birmingham, England, Manufacturing Chemists.

No. of class: 3.

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

No. of application : 4174. Date: 24th April, 1903.

The word



CHARLES B. KNOX, trading as "Spim Co.," of Johnstown, New York State, United States of America, Manufacturer.

No. of class: 3.

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

No. of application : 4177. Date: 27th April, 1903.



The essential particulars of this trade ma distinctive label; (2) the device of a cook; a tinctive signature; and applicants disclaim as exclusive use of the added matter except their

re (1) the ) the disght to the ing-name. NAME.

J B S LE CLOUX AND Co., Adelaide Road, Wellington, New Zealand, Sauce-manufacturers.

## No. of class : 42. Description Of GOOd Sauce.

J. C. LEWIS, Deputy Registrar.

#### Trade Marks registered.

of Trade Marks registered from the 16th to the

January, 1903.) No. 3 1 8 5 ; 3948.—W. D. Lysnar. Class 42. (Gazettes No. 83, of 16th October, 1902, and No. 2, of 6th January,

No. 83, of 16th October, 1902, and 180. 4, of our burner, 1903.) No. 3186: 4086, -The Apollinaris Company, Limited. Class 44. (Gazette No. 13, of the 19th February, 1903.) No. 3187; 4082,—The British Oil and Cake Mills, Li-mited (Stewart Bros. and Spencer Branch) and H. Quane and Co. Class 42. (*Gazette* No. 13, of 19th February, 1903.) No. 3188; 4083.—The British Oil and Oske Mills, Li-mited (Stewart Bras. and Spencer Branch) and H. Quane and Co. Class 4. (*Gazette* No. 13, of 19th February, 1903.) J. C. LEWIS, Deputy Registrar.

Subsequent Proprietors of Trade Marks registered.

[Note.-The name of the farmer proprietor is given in

[Note.--'The name of the farmer proprietor is given in brackets; the date is that of registration.] N 0. 88/2901.-The Clydesdale Distillery Company, Limited, of The Distillery, Glasgow Road and Mar-shall Street. Wishaw, in the County of Lanark, Scotland, Distillers, [J. M. Mackenzie and Co.] 16th April, 1903. J. C. LEWIS. Denutv Registrar.

Deputy Registrar.

#### Trade Mark Renewal Fees paid.

**FEES** have bean paid for renewal of undermentioned Trade Marks for fourteen years from the 1st January, 1904 -

1904 :-- No. 84/2641. A. Usher and Co., Edinburgh (3 marks).
 No. 85/709. 24th April, 1903.
 No. 85/8592 No. 88/824.-F. Braby and Co., Limited, London. 24th

April, 1903. No. 89/1291.—S. L. Allen and Co., Philadelphia, United States of America. 24th April, 1908. J. C. LEWIS,

Deputy Registrar.

By Authority: JOHN MACKAY, Government Printer, Wellington

APRIL 30.]









F. E. Bowman. Gas-producing Plant.

A. J. Park and H. M. Thorpe. Liquid-weighing Apparatus.