numb. 44.



SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, MAY 25, 1899.

Published by Authority.

WELLINGTON, THURSDAY, MAY 25, 1899.

Notice of Acceptance of Complete Specifications.

Patent Office, Wellington, 23rd May, 1899.

COMPLETE specifications relating to the under-men-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 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. 10603.—19th May, 1899.—WILLIAM HENRY PAYNE, of 54, Lambton Quay, Wellington, New Zealand, Bootmaker. Improvements in boots.*

Claims.—(1.) A boot having divisions in the upper, in com-bination with a strap-secured at one end to the upper and passing around the back of the boot, through a loop, and again around the back and then around the front to a buckle, substantially as and for the purposes set forth. (2.) A boot having a division on each side of the ankle, edges of the front part overlapping the edges of the back part, in com-bination with a strap secured at one end to the upper and passing around the back of the boot, through a loop, and again around the back, and then around the front to a buckle, substantially as and for the purposes set forth. (3.) The improvements in boots consisting of parts con-structed, arranged, and combined substantially as and for the purposes set forth. (Specification, 2s.; drawings, 3s.)

No. 10812.—21st July, 1898.—Arthur Charles Atkin, of Auckland, New Zealand, Coachbuilder. A 'bus and car name-indicator lamp.*

Claim.— The combination in a 'bus and car name-indi-cator lamp, built or fixed to the top of a 'bus or car, of a box having its front, back, and sides hinged or fixed and glazed with coloured glass, with words or letters painted, burned, or embossed thereon, and backed by opaque opal glass, and any form of light such as conductoriations. any form of light, such as candle, kerosene, gas, or electricity, fixed within said box for the purpose set forth, as described, and as illustrated by the drawing. (Specification, 1s. 9d.; drawings, 3s.)

No. 10904.—17th August, 1898.—DANIEL WHITBURN, of Kuaotunu, Auckland, New Zealand, Miner. A combined knife, detonating-cap and fuse clinch, and cartridge-punch, for use in blasting operations.*

Claim.—In combination in a pocket-knife, a handle having a lateral hole bored therethrough, a cutting-blade pivotally mounted therein, said blade having a notched excision from its edge, and its outer end punch-shaped, sub-stantially as and for the purposes set forth, and as shown and described.

(Specification, 2s. 9d.; drawings, 3s.)

No. 10930.-31st August, 1898.-FRANK AUGUST COLMAN, of Princes Street, Hawera, New Zealand, Boardinghouse-keeper. An improved washing-machine.* *Claims.*-(1.) The position or hanging of the swinging rods, by being hung out of the perpendicular to gain more leverage, making a distinct advantage. (2.) The friction-roller E. (3.) The dirt-collector F. (4.) The cross-piece K for keeping the swinging board from warping. (5.) The wringer-board M, being for the purpose of holding a wringer and for strengthening the body of box. (Specification, 1s. 3d.; drawings, 3s.)

No. 10947.—5th September, 1898.—DAVID NABLE, of Parkes, New South Wales, Tailor. Improvements in coatadjustments.*

Claim. — A coat-adjustment consisting of one or more pairs of springs, suitably covered, and secured by clips or threads on the lining-facings or material of the coat, or be-tween the lining and facings of the coat and the coat-material, substantially as described, and as illustrated in the dominant the drawings. (Specification, 2s.; drawings, 3s.)

No. 11090.-20th October, 1898.-WILLIAM ADAMS, of Gisborne, New Zealand, Horse-trainer (assignee of James Edmund Harries, of Gisborne aforesaid, Carpenter). An improved method and apparatus for the starting of horses and other competitors in races.*

1031

Claims.—(1.) A combination of apparatus consisting of standards, lines, guys, pegs, a trigger-device, and stand, as an improved invention for the starting of horses and other competitors in races, as more particularly described, and illustrated in the drawings, for the purpose set forth. (2.) An improved method for starting horses and other competitors, whereby the cords fall to the ground instantly, instead of whereby the cords fall to the ground instantly, instead of being raised as is customary, as more particularly described. (3.) A specially constructed trigger-device, in combination with a trigger-line, a leaden or other metal cone, with standards, lines, guys, pegs, and stand, the same as is more particularly described, and illustrated in the drawings, for the purpose set forth. (Specification, 3s. 9d.; drawings, 3s.)

No. 11228.—12th December, 1898.—GEORGE RENNER, Journalist, and WILLIAM HENRY BOYENS, Engineer, both of Kaikoura South, Marlborough, New Zealand. Improve-ments in sheep-brands and the like.*

Claims.—(1.) In apparatus for the purpose described, the combination of a cylindrical vessel for containing the brand-ing fluid, a piston working therein with means for operating same, and a branding-device at the base of said vessel having perforations through which the fluid passes to produce the brand-mark, substantially as specified. (2.) In combination, a cylindrical container for branding-fluid, a piston working therein, a handle upon a cover of said container forming a guard for a handle by which the piston is operated, and a branding-device at the bottom of said vessel having perfora-tions through which the fluid passes to produce the brand-mark, substantially as and for the purposes described and illustrated. illustrated.

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

No. 11262. — 19th December, 1898. — ALBERT POTTER, Albert Avenue, Mount Eden, Auckland, New Zealand, ttler. An improvement on the present dressing of New No. of of Albert Avenue, include the present dressing of New Settler. An improvement on the present dressing of New Zealand flax (which has been properly decorticated, and the juices of the plant eradicated), for the manufacture of ropes and binder-twine without the aid of other machinery than that now employed in its production.*

Claims.—(1.) The system of applying to the flax treated the articles and substances contained in the lye, for the pur-Claims.—(1.) The system of applying to the flax treated the articles and substances contained in the lye, for the pur-pose specified, by the operations described and set forth in the specification. (2.) Preparing each filament and strand of the flax treated to severally receive the properties of the lye, and causing such properties to gradually and effectually operate thereon, thereby covering, overspreading, coating, and infusing upon and into the said strands and fibres of the flax such preparation, in the manner described and explained in the specification. (3.) The lye, as made and composed of the articles and substances therein specified, or other articles and substances that may be made to operate and effect the same purpose (in lieu thereof) to which those are applied— namely, causing the fibres and strands of the flax to cohere and adhere to each other, as referred to, and for the purpose named as set forth in the specification. (4.) To vary the quantities of the several articles and substances composing the lye, sufficient to increase the strength of such lye to suit the quality of the flax operated upon. (Specification, 4s. 9d.)

Nc. 11333.—25th January, 1899.—RICHARD JOHN Moss, of 97, Great Hampton Street, Birmingham, Warwick, Eng-land, Manager. Improvements in acetylene-gas generators.

Claims.— (1.) In an acetylene-gas-generating apparatus, the combination with a suitable water container and a gas-holder working therein which has an open middle part such as c2 of an independent and removable generating-chamber open only at its bottom, and which is loosely sup-ported by the gas-holder so as to depend within the latter's open middle part c2, and which encloses carbide-cages, and which has its open bottom water-sealed, and a central standpipe such as a2, which is enclosed within the said generating chamber so as to lead the gas generated from its top part downwardly and then upwardly into the gas-holder, sub-tantially as described. (2.) In an acetylene-gas-gene-rating apparatus, the combination of an angular water-container a, vertical s: andpipes a2, a3, a4, enclosed therein, a gas holder c working within the said container and enclosing the standpipes a3 and a4, and which has an open middle part c2, an independent and removable generating-chamber open only at bottom, and which is loosely supported by the (1.) In an acetylene-gas-generating apparatus,

gas-holder so as to depend within its part c2, and which encloses carbide cages, and is water-sealed at its open bottom, and a central standpipe a2 which is enclosed within the said closes carbide-cages, and is water-sealed at its open bottom, and a central standpipe a^2 which is enclosed within the said generating-chamber, and which leads from the said chamber's top part to the standpipe a^3 , substantially as desoribed. (3.) In an acetylene-gas-generating apparatus, the com-bination of a square container a, having standpipes a^2 , a^3 , a^4 within it, and water-pockets *i*, i^2 , communicating with said standpipes; a gas-holder *c* working in said container, enclosing the pipes a^3 , a^4 , and which has an open middle part, and which encloses the carbide-cages and the central standpipe a^2 , substantially as described and set forth. (4.) In an acetylene-gas-generating apparatus as claimed in the preceding claim, trapping the gas by means of a water-seal formed in the water-pocket a^5 in conjunction with the end of the standpipe a^2 , so that the gas in the gas-holder is prevented from returning up the standpipe a^2 when the generating -chamber is withdrawn for re-charging, or for other purposes, substantially as described. (5.) In an acetylene-gas-generating apparatus, the combina-tion with a container a, a gas-holder c, and a generating-chamber g, constructed substantially as described, of a carbide-cage carrier fitting over the standpipe a^2 , and which comprises for the most part an open framework capable of supporting the generating chamber and the carbide-cages upon the top of the gas-holder, so that they can be bodily withdrawn with the said carrier, substantially as described and set forth. (6.) Constructing the carbide-cages c with a number of compartments, and forming holes through the walls of the cages at different heights in different compart-ments, for the purpose and in the manner substantially as set forth. (7.) In an acetylene-gas-generating apparatus, comprising a water-container a, and a gasometer c having an open middle part c^2 for accommodating a generating-chamber or carbide-holders, the use of a bucket such as mfor collect

No. 11334.—25th January, 1899.—FREDERICK RATHBONE, of the firm of E. Butler and Sons, of 74, Park Street, Walsall, Stafford, England, also of 205, Clarence Street, Sydney, New South Wales, and 93–95, Edward Street, Bris-bane, Queensland, Manufacturer; and SAMUEL BATES, of 74, Walsingham Street, Walsall aforesaid, Foreman; and WILLIAM MINER, of 31, Newall Street, Walsall aforesaid, Clerk. Improvements in and relating to harness-saddles and the attachment of their fittings. the attachment of their fittings.

Claims.—(1.) In a harness saddle whose terrets and bearing-rein post are carried by the tree, the use of an extended head-plate which is fastened rigid to the tree's head so as to stradile it in line, and which has sorewed bosses or sockets upon its top side, and saddle fittings such as the terrets and bearing-rein post, which have screwed shanks or parts upon them to engage the said sockets for their attachment to the head plate, so as to leave the wood of the tree's head intact and strong, substantially as described and set forth in Figs. 1 to 3. (2.) In combination in a harness-saddle, a tree the 1 to 3. (2.) In combination in a harness-saddle, a tree the crown portion of whose head-part is not pierced or weakened, a head-plate having a screwed socket standing up from it, and which is connected to the said head and adjacent parts so as to straddle them in line, a bearing-rein post or similar fitting having a screwed shank to engage the said socket, and terrets which are connected directly to the wood of the tree's head through piercings in the latter, substantially as set forth in Fig 4. (3.) In harness-saddles having provision for a back-band for supporting shafts, the combination of a saddle-tree whose rear part a3 is left of full strength and minus a cantle, and a leather saddle cap h, made from one piece, and which surrounds the saddle's side-flaps, substantially as set forth. tially as set forth. (Specification, 4s. 9d.; drawings, 6s.)

No. 11413.-2nd March, 1899.-THOMAS HUSSEY KELLY. No. 11413.—2nd March, 1899.—1HOMAS HUSSEY KELLY, Gentleman, GEORGE W. BELL, Author, and ROBERT NEWBY KIRK, Secretary, all of Sydney, New South Wales (assignees of William Crocker Quinby, of Alameda, California, United States of America, Merchant). An improved explosive.

Claim.-An improved explosive manufactured by nitrat *Claim.*—An improved explosive manufactured by nitrat-ing the leaves of the trees or plants set forth in a mixture of suphuric acid and nitric acid, freeing the nitrated mass from acid, thoroughly drying the same and disintegrating it, substantially as described and explained. (Specification, 2s. 3d.)

No. 11429.-6th March, 1899.-CHARLES ERNEST PAGE, of | Hanner Street, Linwood, Christchurch, New Zealand, Cabinetmaker. A combined step-ladder and shelf.*

-The combination with a step ladder of a shelf D Claims -*Claims.*—The combination with a step radie of a shell *D*, supported by arms or bearers C, which are pivotally attached to the sides B of step-ladder; also a rod *b* fitted to rear swing-legs A (or separate stud-pin to each leg); the said arms or bearers being shaped so that when the said rear-legs are extended or opened out the said shelf is caused to rise into a horizontal position, when the said arms or bearers secure the said legs in position; and when the legs are closed the shelf falls compactly against the steps, substantially as described and illustrated in the drawings.

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

No. 11467.-21st March, 1899.-HARRY PHILLIPS DAVIS, of 327, Neville Street, Pittsburg, Pennsylvania, United States of America, Electrical Engineer. Improvements in controllers for electric motors.

-(1.) A series-parallel controller in which the re-Claims.-Claims.—(1.) A series parallel controller in which the re-versing-handle does not directly actuate the reversing-switch, but determines the position of the parts so that when the controlling and regulating switch-handle is moved the re-versing-switch is automatically actuated to connect the motors in the desired manner. (2.) A controller of the class described, and having a main regulating switch and a reversing-switch for governing the direction of movement of the car, the two switches being so connected that when the main switch is moved from a position in which current is supplied to the motors to one in which the motors act as generators the reversing-switch is automatically operated to generators the reversing-switch is automatically operated to reverse the motor-connections, and vice vers \hat{a} . (3.) In a con-troller of the class described, the devices for automatically actuating the reversing switch constructed and operating substantially as described with reference to Figs. 2, 3, 4, and substantially as described with reference to Figs. 2, 3, 4, and 5 of the drawings. (4.) In a series-parallel controller, a two-part reversing-switch, one part corresponding to each motor, and either part capable of being disconnected from the switch shaft and rota ds os as to cut its corresponding motor out of circuit. (5.) The devices for limiting the movement of the main switch when one of the motors is cut out, con-structed and operating substantially as described with re-ference to Figs. 3, 6, and 7 of the drawings. (6.) Controllers constructed and operating substantially as described with reference to the drawings. (Specification, 16s.; drawings, £1 17s.)

(Specification, 16s.; drawings, £1 17s.)

No. 11509.—4th April, 1899.—RICHARD WILLIAM HENN, of Princes Street, Hawera, New Zealand, Timber Merchant. An improved pneumatic valve principally applicable to tires.

Claims.—(1.) The sheath B, with its elongated spring sides B^3 , for the purpose of squeezing or pinching a flexible tube. (2.) The article Fig. 8, being a tube A with a collar of different shapes A^3 . (3.) The collar A^3 , and also the flexible tube to be drawn over it. (4.) Also the thick-lipped or washered topped flexible tube mentioned in the specification to take the place of above tube in third claim in the position mentioned. (5.) The sleeve D, with its indentations L⁴ and L⁹. (6.) In combination with articles for the preventing air from escaping from an air-valve. from escaping from an air-valve. (Spec fication, 4s.; drawings, 6s.)

No. 11510 .- 5th April, 1899 .- GEORGE LAMBERT THOMSON, of 103, Queen Street, Auckland, New Zealand, Farmer. Im-provements in and connected with the construction and fitting of roofs or coverings for stacks of grain and other farm-produce with galvanised corrugated sheet-iron or other sheet metal.

Claims.—(1.) The construction of, and method or mode and means of constructing, roof coverings for said stacks, of portable parts or sections, each formed of an upper corrugated or other sheet of metal firmly fixed on top of a rigid frame of wood or other suitable material under it, by which each section is strengthened and secured along its side joint edges to the others met it, and coupled at upper end at control section is strengthened and secured along its side joint edges to the others next it, and coupled at upper end, at centre ridge, to its fellow-section, in line on opposite side of stack, and of fitting and securing these sections together and on the top of stack, all generally and substantially as described in reference to and shown in the sheet of drawings. (2.) The construction of the roof coverings for said stacks, of separate portable plate sections, each with a rigid frame of wood or other equivalent secured to

under side of plate for securing it to its adjacent sections along their joint side edges, so as to support said sides of two sections at each overlap-joint of plates by one rafter bar of each frame, said bar also coupling its section to that of its fellow-section on opposite top angles of stack at their upper ends over centre ridge, all substantially as described in reference to and shown in sheet of drawings. (3.) In such sectional roof-coverings for said stacks, the con-struction of and method of laving and fitting the sections in (5.) In such sectional root-coverings for said stacks, the con-struction of and method of laying and fitting the sections in fellow-pair in line on the opposite-angled top sides of stack, so as to overlap-joint all the side edges of their plates with all those of their adjacent sections on same sides of stack, and be coupled by the top ends of their under-frames across and above ridge of stack, all substantially as de-scribed in reference to and shown in the sheet of drawings. (4.) In such sectional root coverings for said stacks, the forming of all the sections successively first laid down on the lee side of stack with their corrugated-iron plates or other sheet-metal made a few inches shorter at top than the plates of their fellow-sections to be alterwards laid down and plates of their fellow-sections to be alterwards laid down and coupled to them on the windward side over the ridge, and so that the top ends of the plates on the windward side shall project over those on the lee side sufficient to prevent the rain getting in at the ridge, all substantially as described in reference to and shown in the sheet of drawings. (5.) In web sectional roof coverings for said stacks the construction reference to and shown in the sheet of drawings. (5.) In such sectional roof-coverings for said stacks, the construction of the portable sections so that they cannot all be succes-sively and securely fitted to each other at adjacent side edges, as to be bound longitudinally and horizontally, and there also form an overlap watertight joint along the same edges of their metal plates, all substantially as described in reference to and shown in the sheet of drawings. (6.) In such sectional roof-coverings for said stacks, the coupling and binding respectively the fellow-sections laid in line on the opposite two angled top surfaces of stack, by projections from their binding under - frames at the centre ridge of stack and the opposite eaves, parallel to and nearly under each overlap joint of their corrugated or other covering-plates, all substantially as described in reference to and shown in the sheet of drawings. (Specification, 13s.; drawings, 6s.)

(Specification, 13s.; drawings, 6s.)

No. 11554.-25th April, 1899.-ROBERT LOUIS HOWELL MURRAY, of Salisbury Terrace, Wellington, New Zealand, Electrician. Improvements in the coin-in-the-slot graphophone.

Claims.-(1.) In combination, a support for horn, as described in Fig. 2; a slotted slip of wood, as described in Fig. 3; a pivoted socket attachment for horn, as described (2.) The general arrangement, construction, and combination of the parts, Figs. 2, 3, 4, as set forth in Fig. 1. (Specification, 1s. 9d.; drawings, 3s.)

No. 11570.-21st April, 1899.-JAMES GORE, of 31, Moray Place, Dunedin, New Zealand, Contractor. Improved roofingtiles.

Claim.—In any tiles for roofing and the like uses, the combination with such tile of the part sloped or bevelled, such as D, and also with a groove or grooves, such as B, and the interlocking edges, such as E, E^1 , substantially as and for the purposes described and explained, and as illustrated in the drawing. (Specification, 1s. 3d.; drawings, 3s.)

No. 11571.—28th April, 1899.—ELISHA SEYMOUR, of Chi-cago, Illinois, United States of America, Manufacturer. Improvements in rotary engines.

-(1.) The combination with a circular steam cylin-Claims.—(1.) The combination with a circular steam cylin-der, case, or shell, provided with a circular cam-track concen-tric therewith, of a rotary piston wheel or drum within said cylinder, case, or shell, and journalled eccentric thereto and to said cam-track, and provided with a sliding curved piston-wing, said piston-wing riding against the inner periphery of said case or shell, substantially as specified. (2) The com-bination with a circular steam cylinder, case, or shell, pro-vided with a circular cam-track concentric therewith, of a rotary piston wheel or drum within said cylinder, case, or shell, and journalled eccentric thereto and to said cam-track, and provided with a sliding curved piston-wing, having a brace or arm at the outer end thereof pivotally connected to said wheel or drum, said piston-wing riding against the inner

periphery of said case or shell, substantially as specified. (3.) The combination with a circular steam cylinder, case, or all, provided with a circular cam-track concentric therewith, of a rotary piston wheel or drum within said cylinder, case, or shell, and journalled eccentric thereto and to said case, or shell, and journalled eccentric thereto and to said cam track, and provided with a sliding curved piston-wing, said piston or wing having a rocking-shoe at its outer end to form a bearing against said cylinder, case, or shell, said piston-wing riding against the inner periphery of said case or shell, substantially as specified. (4.) The combination with a circular steam cylinder, case, or shell, provided with a cir-cular cam-track concentric therewith, of a rotary piston wheel or drum within said cylinder, case, or shell, and jour-nalled eccentric thereto and to said cam-track, and provided with a sliding curved piston-wing, having a brace or arm at the outer end thereof pivotally connected to said wheel or drum, said piston or wing having a rocking-shoe at its outer end to form a bearing against the inner periphery of said case or shell, substantially as specified. (5.) The combina-tion with a circular steam cylinder, case, or shell, provided with a circular cam-track concentric therewith, of a rotary piston wheel or drum within said cylinder, case, or shell, piston wheel or drum within said cylinder, case, or shell, and journalled eccentric thereto and to said cam track, and provided with a sliding curved piston, and friction rollers on provided with a shaing curved piston, and motion rollers on said piston riding on said cam, said piston riding at its outer end against the circular inner periphery of said case or shell, substantially as specified. (6.) The combina-tion with a circular steam cylinder, case, or shell, provided with circular cams concentric therewith, of a rotary piston wheel or drum within said cylinder, case, or shell, and jour-nalled eccentric thereto and to said cams, and provided with sliding curved pistons, having each a brace or arm at the outer end thereof pivotally connected to said wheel or drum, and friction rollers on said pistons riding on said cams, said and friction-foliers on said pistons riding on said cams, said pistons riding at their outer ends against the inner circular periphery of said case or shell, substantially as specified. (7.) In a rotary engine, the combination with the steam-cylinder having a circular inner periphery of a rotary piston wheel or drum journalled eccentric to said cylinder, radially-sliding pistons thereon, a circular cam concentric with said steam-cylinder for operating said sliding pistons, and rocking-shoe of the and of said vistons substratially car carceled steam-cylinder for operating said sliding pistons, and rocking-shoes at the end of said pistons, substantially as specified. (8.) In a rotary engine, the combination with a steam cylin-der having a circular inner periphery of a rotary piston wheel or drum journalled eccentric to said cylinder, radially-sliding pistons thereon, a circular cam concentric with said steam-cylinder for operating the same, and hinged arms or braces connected to the outer ends of said sliding pistons, to prevent the same from binding in sliding in and out, sub-stantially as specified. (9.) In a rotary engine, the combina-tion with the steam-cylinder having a circular inner periphery of a rotary piston wheel or drum journalled eccentric to said cylinder, sliding plates thereon, and circular cams, con-centric with said steam-cylinder, and secured to the heads of the engine-cylinder on opposite sides of said rotary wheel or drum, for operating said radially-sliding pistons, substantially as specified. (10.) In a rotary engine, the combination with the steam-cylinder, having heads B, B¹, provided with cams, of a rotary piston wheel or drum, sliding pistons thereon operated by said cams, a valve-case, a rotary valve secured to the engine-cylinder provided with ports, and an adjustable rotary expansion or cut-colf ring batwaen said rotary valve operated by said cams, a valve-case, a rotary valve secured to the engine-cylinder provided with ports, and an adjustable rotary expansion or cut-off ring between said rotary valve and engine-cylinder head, provided with a segmental slot or port, and a stop on the engine-cylinder head, substantially as specified. (11.) The combination of steam-cylinder A, provided with a circular inner periphery, and having heads B, B¹, rotary piston wheel or drum D, having shaft C journalled in said heads B, B¹, eccentric to said steam-cylinder, curved pistons F, F, riding against the circular inner periphery of said steam-cylinder, and furnished with brace or supporting arms pivoted to said wheel or drum, substantially as specified. (12.) The combination with a steam-cylinder A provided with a circular inner periphery and having heads B, B¹, rotary piston wheel or drum D having shaft C journalled in said heads B, B¹, eccentric to said steam-cylinder, curved pistons F, F, riding against the circular inner periphery of said steam-cylinder and fur-nished with brace or supporting arms pivoted to said wheel or drum, and cams concentric with said steam-oylinder for operating said radially-sliding pistons, substantially as specified. (13.) In a rotary engine, the combination with the engine-cylinder head B of engine-shaft C, a rotary valve H¹, and expansion or cut-off ring G, said rotary valve H¹, and expansion or cut-off rings being provided with V-shaped packing grooves and projections, sub-stantially as specified. (14.) The combination of the steam-cylinder having an inner circular periphery with the rotary piston wheel or drum journalled eccentric to said cylinder, and provided with sliding pistons provided with spring-supported packing plates or bars, and cams concentric with said steam-cylinder for operating radially-sliding pistons, substantially as specified. (Specification, 8s. 6d.; drawings, 16s.)

No. 11594.—1st May, 1899.—THOMAS HODGEINSON, of 53, Esk Street, Invercargill, New Zealand, Brickmaker. Im-provements in kilns for burning bricks and general clay--ware.

Claim.—(1.) In a kiln for burning bricks or general clayware, the combination of a kiln (having no underground flues), of small flue-ends, such as G, G, G, for starting the flues from, such as H, H, which are formed out of the materials to be burnt, with the stacks, such as E, and with spy-holes for observing the state of the burning, such as L, L, substantially as described and explained, and as illustrated in the drawing. (2.) A plain kiln formed with a flat floor, fire-holes, and a number of small short flues in the end wall or walls communicating direct to the stacks, such as B, B, D, D, G, G, E, E, so that the contents to be burnt form the chief part of the flues, the said kiln containing a number of spy-holes, such as L, L, all substantially as described and explained, and as illustrated in the drawing. (Specification, 2s. 3d.; drawings, 3s.) -(1.) In a kiln for burning bricks or general clay Claim.

No. 11600. --- 5th May, 1899. -- PERCY ADOLPHUS VAILE, Solicitor, and ERNEST BERTHOLD VAILE, Estate Agent, both of Auckland, New Zealand. Improvements in taps.

Claim.—In a tap, the stopper C, which, upon the lever F being depressed at H, is raised, and allows the liquid to escape, substantially as described. (Specification, 1s.; drawings, 3s.)

No. 11605.—11th May, 1899.—ARCHIBALD ANDERSON DICKSON, of Spadina Road, Toronto, Canada, Manufacturer. Improvements in the manufacture of peat-fuel.

Claims.-(1.) The art, method, or process of manufacturing peat into blocks, which consists essentially in the following sequence of operations: viz., first, drying the raw peat sufficiently to deprive it of all but approximately the atmo-spheric degree of moisture; second, breaking or separating it into fragments which retain the natural fibre practically un-broken; third, disposing such dry and broken material in even successively gravitating charges, and subjecting each of even successively gravitating charges, and subjecting each of such charges to pressure—one compression to each charge— against a yielding resistance, whereby the initial pressure upon each charge forms same into a block, and whereby such formative pressure upon a succession of such blocks shall always be the same, irrespective of varying density in the charges, and whereby the formation—one upon the other—of evenly hard separate blocks may be con-tinuously carried on contemporaneously with the feed of raw material, substantially as set forth. (2.) In a press, the combination with a main frame, for carrying the deadweight and staying the parts, of a main shaft having a crank and fly-wheel, journals therefor inde-pendent of the main frame, a connecting-rod and cross-head in operative connection with the crank, a steam-cylin-der having its piston-rod projecting thereform at both ends, der having its piston-rod projecting therefrom at both ends, one end of said piston rod being connected to the cross-head, and the other end of said piston-rod left free to act as former and the other end of said piston-rod left free to act as former or male die, a die-block having a forming-tube or female die therein, and tie-rods connecting the crank-shaft bearings and the die-block in such manner that each may afford support to the other in the line of working-strain, substan-tially as and for the purpose set forth. (3.) In a press, the combination with a main frame, for carrying the deadweight and staying the parts, of a crank-shaft provided with two cranks mounted at right angles to each other, journals there-for independent of the main frame, connecting-rods and cross-heads in operative connection with said oranks, guides for said cross-heads, steam-cylinders having their piston-rods cross heads in operative connection with said oranks, guides for said cross-heads, steam-cylinders having their piston-rods projecting therefrom at both ends, said piston-rods forming connection with the cross-heads at one end and terminating in formers or male dies at the other end, a die-block having forming-tubes or female dies therein, and tie-rods connect-ing the crauk-shaft bearings and the die-block so that each may afford support to the other in the line of working-strain, said tie-rods also infermediately supporting the steam-cylin said tie-rods also intermediately supporting the steam-cylin-ders and cross-head guides, substantially as and for the purpose set forth. (4.) In a press adapted to form a succes-sion of blocks against a yielding resistance, the combination sion of blocks against a yielding resistance, the combination with a suitably journalled main shaft, and means for im-parting motion and power thereto, of formers or male dies in operative connection with said main shaft, a die-block having forming-tubes or female dies therein, registering with said formers or male dies, tie-rods between the main-shaft journals and the die-block arranged so that each abell ourpart the other in the line of mething string and shall support the other in the line of working-strain, and means whereby the length of stroke between male- and female-die members may be regulated, substantially as and for the purpose set forth. (5.) The combination with driving mechanism and supports of the formers or male dies, the

die-block having forming-tubes or female dies therein, the frame supporting said die-block, means for adjusting said die-block in said frame, and the tie-rods connecting said supporting frame with supports of the driving mechanism, substantially as and for the purpose set forth. (6.) As a new article of manufacture, a hard, dense fuel-block, con-sisting of peat containing approximately only the atmosisting of peat containing approximately only the atmo-spheric degree of moisture, and embodying all of the fibrous, carbonaceous, volatile, and other elements inherent of the raw material, intact and unimpaired, substantially as set forth.

(Specification, 15s.; drawings, £1 1s.)

No. 11607.—11th May, 1899.—CHARLES WHITE, of 54, Lambton Quay, Wellington, New Zealand, Ironmonger. An improved acetylene-gas generator.

-(1.) An acetylene-gas generator, comprising in Claime combination a cylinder, a nozzle, a water-vessel, a valve, a valve-stem, a spring, a handle, a notched collar, a sponge, valve-stem, a spring, a handle, a notched collar, a sponge, and a regulator, substantially as and for the purposes set forth. (2.) In an acetylene-gas generator, a regulator com-prising a body terminating at the bottom in a point, a central hole in which a stem fits freely, and a small hole reaching from the bottom of the central hole to the upper part of the body, substantially as and for the purposes set forth. (3.) In an acetylene-gas generator a regulator com-prising a body terminating at the bottom in a point, a central hole in which a stem fits accurately, a small hole passing downwards upon one side and a second hole passing upwards upon the other side of the body, the lower ends of the said small holes terminating in and near the bottom of the central hole, substantially as and for the purposes set forth. (4.) An acetylene-gas generator comprising in com-bination a cylinder, a nozzle, a cap screwed to the top of the cylinder, a water-vessel screwed to the cap, a valve and raised valve-seat at the bottom of the water-vessel, a valvestem, a spring on the valve-stem and in compression between the cap and shoulder of the valve-stem, a handle for turning the valve-stem, a snib upon the handle, a notched collar on the cap, and a regulator, substantially as and for the purposes set forth. (5.) An acetylene-gas generator comprising in combination a cylinder, a nozzle, caps screwed to each end of the cylinder, a water-vessel screwed to the cap, a valve of the cylinder, a water-vessel screwed to the cap, a valve and raised valve-seat at the bottom of the water-vessel, a valve-stem, a spring on the valve-stem and in compression between the cap and shoulder of the valve-stem, a handle for turning the valve-stem, a snib upon the handle, a notched collar on the cap, a cage for holding the carbide, a sponge, and a regulator, substantially as and for the pur-poses set forth. (6.) An acetylene-gas generator comprising in combination a cylinder, a nozzle, caps screwed to each end of the cylinder, a water-vessel screwed to the cap, a valve and raised valve-seat at the bottom of the water-vessel. a valve-stem, as ming on the valve-stem and in comvalve and raised valve-seat at the bottom of the water-vessel, a valve-stem, a spring on the valve-stem and in com-pression between the caps and shoulder of the valve-stem, a handle for turning the valve-stem, a snib upon the handle, a notched collar on the cap, a sponge, a regulator, a central hole in the regulator fitting freely upon the lower part of the valve-stem, and a small hole reaching from the bottom of the central hole to the upper part of the body, substantially as and for the purposes set forth. (7.) An acetylene-gas generator comprising in combination a cylin-der, a nozzle, caps screwed to the end of the cylinder, a water-vessel screwed to the cap. a valve and raised valveder, a nozzle, caps screwed to each end of the cylinder, a water-vessel screwed to the cap, a valve and raised valve-seat at the bottom of the water-vessel, a valve-stem, a spring on the valve-stem and in compression between the cap and shoulder of the valve-stem, a handle for turning the valve-stem, a snib upon the handle, a notched collar on the cap, a sponge, a regulator, a central hole in the regulator fitting accurately upon the lower part of the valve-stem, a small hole passing downwards upon one side, and a second hole passing upwards upon the other side of the body, the lower ends of the said small holes terminating in and near the bottom of the central hole. substantially as and for the the bottom of the central hole, substantially as and for the purposes set forth. (6.) The improved acetylene-gas gene-rator consisting of parts constructed, arranged, and com-bined substantially as and for the purposes set forth. (Specification, 6s. 9d.; drawings, 8s.)

No. 11608.—11th May, 1899.—ELIAS BEENARD KOOPMAN, of 18 and 19, Great Windmill Street, Piccadilly Circus, London, W., England, Manager. Improvements in ap-paratus for exhibiting a succession of pictures giving them an appearance of motion, and coin-freed mechanism therefor.

Claims.—(1.) Exhibiting a succession of pictures giving the appearance of motion by means of a coin which reaches by bouncing a position in which it becomes a link, enabling the mechanism to be operated, substantially as described.

(2.) In mechanism for exhibiting a succession of pictures giving the appearance of motion, a flexible driving-shaft, and grooved wheel such as L with its friction-plates adapted to grooved wheel such as L with its friction-plates adapted to operate a picture-reel, acting substantially as and for the purpose specified. (3.) The combination in picture-exhibit-ing mechanism of a hinged plate such as B, operated through a coin by a lever such as J and a rod such as E, substan-tially as described. (4.) The combination in picture-ex-hibiting mechanism of a hinged plate such as B, operated through a coin by a lever such as J, with a rod such as E, and friction-device such as L, lifting the gear-wheel into mesh with the picture-wheel, substantially as described. (5.) In combination with a coin-operated mechanism, a drum, having picture-cards arranged radially thereon, and a detaining and releasing stop for said cards, whereby the pic-tures are successively and rapidly exhibited so as to give an tures are successively and rapidly exhibited so as to give an appearance of motion, substantially as described. (6.) In combination with a coin-operated mechanism, a drum having picture-cards arranged radially thereon, a detaining and re-leasing stop for said cards, a lamp for illuminating the pictures as they are successively and rapidly exhibited so as to give an appearance of motion, substantially as described. (7.) In mechanism for exhibiting a succession of pictures, a hinged stop such as M, acting also as a closing-switch establishing the electric contact of the lamp illuminating the pictures, substantially as described. (8.) The general arrangement of parts constituting a coin operated mutascope, substantially as described with reference to the drawings. (Specification, 9s.; drawings, £1 1s.)

No. 11609.—11th May, 1899.—JOHN JAMES DRAGE, of First Avenue, East Adelaide, South Australia, Manufacturer, and Edward Thomas Bridgland, of Hill Street, North Adelaide, South Australia, Hardware Salesman. Improvements in refrigerators.

Claims.-(1.) In refrigerators, an inner storage-chamber between the ice-box and the inner walls, inlets for the introduction of air, air-vents leading from the storage-chamber into a jacket or air-space formed around the chamber, and air vents leading from the jacket or air-space through an outer casing to the outer air. (2.) In refrigerators, an inner storage-chamber provided with an ice-box, a passage or air-space formed between the ice-box and the inner walls, inlets for the introduction of air warts leading from the storage. for the introduction of air, air-vents leading from the storage-chamber into a jacket or air-space around the chamber filled loosely with an insulating material, and air-vents leading from the jacket or air-space through the outer casing to the outer air. (3.) In refrigerators, the combination with an inner storage chamber, provided with an ice-box and a pas-sage formed between the ice-box and inner walls, of a jacket or air space between the outer caving and the storage-chamber through and around which the air finally circulates before escaping into the outer air. (4.) In refrigerators, a before escaping into the outer air. (4.) In refrigerators, a passage or air-space formed between the ice-box and the inner walls, discharging into the storage-chamber, and having inlets for the passage of the outer air. (5.) In re-frigerators, providing the outer casing with inner walls form-ing a jacket or air-space and having suitable inlets and out-lets for the circulation of the air around the same, substan-tially as described. (6.) In refrigerators, providing the outer casing with inner walls forming a jacket or air-space and having suitable inlets and outlets arranged at the top and upon opposite sides to each other for the circulation of air around the same, substantially as described. (7.) In re-frigerators, in which the outer casing is provided with inner walls forming a jacket or air-space having suitable air vents walls forming a jacket or air space having suitable air vents for the circulation of air, passing the drip-pipe from the ice-box through such air space, substantially as described. (8.) In refrigerators, the combination with an outer casing having inner walls forming a jacket or air passage having suitable air work for the simulation of air passage having suitable air vents for the circulation of air around the same, of a storage-chamber lined with enamelled iron, and provided with an ice box, substantially as described. (Specification, 6s.; drawings, 3s.)

No. 11611.—11th May, 1899.—CHARLES EDWARD POINTON, and JOHN EDWARD POINTON, both of Wrekin Road, Wel-lington, Salop, England, Engineers. Improvements in ma-chines for dividing dough and like plastic material.

Claims.-(1.) In machines for dividing dough and like plastic material into portions of uniform weight, the con-struction and arrangement of parts insuring the accurate and regular working, handiness, and durability of the ma-chines; permitting of ready adjustment to the weight of the portions into which it is required to divide the material, and enabling the working parts to be safely and conveniently cleaned and inspected, substantially as described. (2.) In machines for dividing dough and like plastic material into

portions of uniform weight, the operation of the whole of the moving parts by gearing driven from a revolving fly-wheel J, such fly-wheel being so constructed and arranged the moving parts by gearing driven from a revolving fly-wheel J, such fly-wheel being so constructed and arranged as to serve as a driving-pulley and gearing-guard, substan-tially as described. (3.) In machines for dividing dough and like plastic material into portions of uniform weight, the adjustment of the stroke of the plungers, as Q, in the cham-bers of the division-box N in such a manner as to insure that, whatever may be the length of stroke, the inner faces of the plungers shall always be returned to a position in alignment with the scraper S, substantially as and for the purposes described. (4.) In machines for dividing dough and like plastic material into portions of uniform weight, the use of spring buffers as T^1 , T^2 , for preventing belated movement of the cross-head Q², with the attached plungers Q, on the in-stroke of the division-box N, substantially as described. (5.) In machines for dividing dough and like plastic material into portions of uniform weight, means for enabling the plungers, as Q, with their rods Q¹ and cross-head Q², to be withdrawn and supported away from the guides A², A³, for the purpose of cleaning and inspec-tion, substantially as described. (6.) In machines for divid-ing dough and like plastic material into portions of uniform weight, means for raising and supporting the main raped. ing dough and like plastic material into portions of uniform weight, means for raising and supporting the main ram A for cleaning and inspection purposes, substantially as de-scribed. (7.) In machines for dividing dough and like plastic material into portions of uniform weight, the use of arched cross-stays, as A^4 , A^5 , between the cross-head and division-box guides, as A^2 , A^3 , and the construction and arrangement of the outer end of the said guides A^2 , A^3 , to permit of more convenient and accurate planing or machining and fitting of the casting, and to insure sufficient rigidity to maintain its accuracy of alignment and fitting, substantially as described. (8) The improved dough-dividing machine, constructed and (8.) The improved dough-dividing machine, constructed and arranged substantially as and for the purposes described, and as illustrated in the drawings. (Specification, 10s.; drawings, £1 1s.)

No. 11613.—11th May, 1899.—CHARLES HAYWARD IZARD, of Wellington, New Zealand, Solicitor (nominee of William Walter Barton and Arthur Thomas Barton, both of 103, New Oxford Street, London, England, Horse-clipping and Sheep-shearing Machine Manufacturers). Improvements relating to horse-clippers, sheep-shears, and other apparatus where close contact of the parts is required during movement.

Claims—(1.) In apparatus for applying pressure to a sur-face moving in contact with a fixed surface, the combination of a fixed abutment, means for raising and lowering a pressing-device in the abutment, and a pressing-device, comprising anti-friction appliances, all substantially as described. (2.) In apparatus for applying pressure to a surface moving in contact with a fixed surface, the com-bination of a fixed abutment, a flanged internally-threaded sleeve elastically mounted in the abutment, and secured by a nut arranged to turn with the sleeve, and a pressing-device comprising a trough-shaped piece containing anti-friction appliances, all substantially as described, and operating in the manner set forth. (3.) The combination of a fixed plate, a reciprocating plate in close contact therewith, and means for securing the close contact, and comprising a fixed abutment, means for raising and lowering a pressing-device in the abutment, and a pressing-device comprising a fixed abutifield, means for failing and lowering a pressing - device in the abutment, and a pressing device having anti-friction appliances, to bear on the reciprocating plate, substantially as described. (4.) The improvements in horse-clipping and sheep-shearing machines as shown and described, and for the purpose set forth. (Specification, 2s. 9d.; drawings, 8s.)

No. 11614.—12th May, 1899.—EDWARD JORDAN, Plumber and Metal-worker, and GEORGE THOMAS ROGERS, Plumber, both of 322, Elizabeth Street, Sydney, New South Wales. A rotary moulding-machine for shaping metal sheets.

Claims.-(1.) In rotary moulding-machines for shaping Claims.—(1.) In rotary moulding-machines for shaping metal sheets, the lower and upper rotary dies provided with convoluted surfaces, and having a slit or recess or several of such, to receive and retain the metal sheets preparatory to bringing the convoluted surface of one die into contact with the convoluted surface of the other die, as described and shown. (2.) In rotary machines of the class set forth, the combination upon a lower and upper rotary die of two or more moulding-devices, either the same or of varying dimen-cions adapted to produce opec suffering, mouldings, and more moulding-devices, either the same or of varying dimen-sions, adapted to produce ogee guttering, mouldings, and suchlike, as described and illustrated, and for the purposes set forth. (3) In rotary machines of the class set forth, the combination with a lower rotary die of a detachable strip alike adaptable to ogee gutters of varying sizes adapted to produce a slit or recess and the rounded bead, as described and shown and for the purposes set forth. (4.) In rotary machines of the class set forth, the combination with the

upper and lower rotary dies of a detachable strip alike usable with the horn of the upper die and a portion of the convoluted surface of the lower die, to either enlarge or reduce the dimensions of the articles to be moulded, as described and shown. (5.) In rotary machines of the class set forth, the combination of two rotary dies, one of which is provided with horns to limit the range of movement and to necessitate a reverse movement in the machine to produce necessitate a reverse movement in the machine to produce more than one moulding operation, as described and shown. necessitate a reverse movement in the machine to produce more than one moulding operation, as described and shown. (6.) In rotary machines, the combination of the upper and lower rotary dies with the beading devices such as are described, and for the purposes set forth. (7.) In rotary machines of the class set forth, the combination with con-voluted surfaces adapted to produce ogee guttering of de-tachable dies to produce mouldings other than ogee guttering, as described and shown. (8.) In rotary machines of the class set forth, the combination of the lower and upper rotary dies provided with surfaces for attaching a variety of dies with convoluted surfaces, the whole being arranged for continuous rotary movement, as described and shown. (9.) A rotary moulding-machine for shaping metal sheets, having a lower rotary die in a fixed bearing and an upper ro-tary die na adjustable bearing, combined with a cushioning spring, an adjustable cap, and a gapped standard for the said movable bearings, as described and shown. (10.) In rotary machines of the class set forth, the combination with the rotary moulding-dies of equally geared wheels attached thereto to produce either continuous or intermittent motion as may be desired, as described and shown, and for the pur-poses set forth. (11.) The combination and arrangement of the parts described, the whole forming a complete rotary or semi-rotary machine, operated in the manner set forth, as described and illustrated. (Specification, 6s. 3d.; drawings, 16s.)

(Specification, 6s. 3d.; drawings, 16s.)

No. 11620.—10th May, 1899.—MALCOLM BRUCE, of Thames, Auckland, New Zealand, Metallurgist. An improved vat for treating ore by solvent processes.

Claims.—(1.) In a vat for treating ores or suchlike by solvent processes, an upper or false bottom having tappet-valves therein, and having the true bottom beneath the false bottom divided into encircling and separate channels connected by tubes and stopcocks to an inlet-pipe junc-tioned to a solution-pipe and a wash-water pipe, for the purpose set forth, as described, and as illustrated by the drawings. (2.) In a vat for treating ores or suchlike by solvent processes, encircling and separate channels be-neath a false bottom, having tappet-valves connected thereto, said channels being connected by tubes and stopcoks to an inlet-pipe junctioned to a solution-pipe and wash-water pipe, for the purpose set forth, as described, and as illustrated by the drawings. (3.) In a vat for treating ores or suchlike by solvent processes, an inlet-pipe connected by separate and distinct stopcocks to channels beneath a false bottom, having tappet-valves therein connected to said channels, for the purpose set forth, as described, and as illustrated by the drawings. (4.) In a vat for treating ores or suchlike by solvent processes, an atmospheric-air pipe and a sludge-pipe connected to channels beneath a false bottom, having tappet-valves therein connected to said channels, for the purpose set forth, as described, and as illustrated by the drawings. (4.) In a vat for treating ores or suchlike by solvent processes, an atmospheric-air pipe and a sludge-pipe connected to channels beneath a false bottom, having tappet-valves therein connected to said channels, for the purpose set forth, as described, and as illustrated by the drawings. (5.) In a vat for treating ores or suchlike by solvent pro-cesses, ports or holes cut into and through the wall of the vat near its top, with grooves, frames, and straps hold-ing filtering-cloths thereover, for the purpose set forth, as described, and as illustrated by the drawings. (6.) In a vat for treating ores or suchlike by solvent pro-cesses, a skeleton cover suspended over and in the vat Claims.-(1.) In a vat for treating ores or suchlike by bottom, with tappet valves therein connected to channels, said channels cut into or out of true bottom, and connected to inlet-pipe by tubes or short pipes and stopcocks, said inlet-pipe junctioned to solution inlet-pipe and wash-water inlet pipe, said channels connected to atmospheric inlet pipe and to sludge-pipe, said vat having sluice doors in its wall near the bottom, and ports or holes near its top, with grooves, frames, and straps holding filter cloths thereover, with a launder or gutter running round outside of said vat beneath said ports, with outlet solution, wash-water, and crushing-water pipes from said launder, a shaft and distributing arms fixed within centre of said vat, a skeleton cover suspended over and into said vat, with filtering-cloths secured thereto, having an overflow-pipe from an observation channel therein, said cover having chamfered edge holding rubber band around edge of cover close to inside of vat when lowered therein, said skeleton-cover having a flat iron ring in its centre encompassing a funnel designed to receive shaft of distributing-arms, all for the purpose set forth, as described, and as illustrated by the drawings. (Specification, 9s.; drawings, 10s. 6d.)

No. 11621. -12th May, 1899 .- ACTIESELSKABET BURMEIS-TER & WAINS MASKIN OG SKIBSBYGGERI, Of Copenhagen, Denmark, Manufacturers (assignees of Oscar Anderson, of Forest Street, Arlington, New Jersey, United States of America, Mechanic). Improvements in centrifugal creamseparators.

Claims.—(1.) The combination with a rotary bowl, and means for rotating the same, of a milk supply tube, arranged at the centre of the bowl, and imperforate, to deliver all the milk at the bottom thereof; a series of horizontal or out-wardly-extending partitions, arranged within the bowl, and fixed to said milk-supply tube, and removable therewith; and the perforated and irregular cylindrical partition ar-ranged outside of said horizontal partitions: all substantially as set forth. (2.) The combination with the rotary bowl, having openings therein for the new milk, cream, and blue having openings therein for the new milk, cream, and blue milk, and means for rotating said bowl, of a series of parti-tions arranged within said bowl and forming a vertical series tions arranged within said bowl and forming a vertical series of chambers at or near the centre of the bowl, and a vertical partition arranged outside of and around said chambers within said bowl, the last partition having irregular surfaces, and provided with openings for the cream and blue milk at points in its vertical length closely adjacent to the edges of the first said partitions, all substantially as set forth. (3.) The combination with the rotary bowl, having ducts for the blue milk, cream, and new milk, and means for rotating said bowl, of a central feed tube g, imperforate, to deliver all the milk at one end of the bowl; partitions m, n, extending outward from said feed-tube; and a cylindrical partition arranged around said partitions m, and provided with blue-milk and cream passages, substantially as set forth. (4.) In milk and cream passages, substantially as set forth. (4.) In a centrifugal creamer, the combination with the bowl α , and means for rotating the same, of a cylindrical partition, comprising a plate having protuberances and opposite corre-sponding recesses, the protuberances bearing directly upon the bowl and holding the cylinder in place, said protuber-ances being perforated near their apices and bases to allow of the flow of blue milk and cream therethrough, and leavof the flow of blue milk and cream therethrough, and leav-ing blue-milk passages entirely therearound, to allow both a vertical and horizontal flow, substantially as set forth. (5.) In a centrifugal creamer, the combination with the bowl, and means for operating the same, of a cylinder, open at its opposite ends, and having protuberances entirely surrounded by passages for the fluid, to allow a free horizontal and ver-tical flow, each protuberance being perforated near its point of farthest outward projection, and the cylinder being also perforated at the base of its protuberances, substantially as set forth. (6.) In a centrifugal creamer, the combination with the bowl, and means for operating the same, of a sheet-metal cylinder, with protuberances which do not extend con-tinuously around the periphery of the bowl, said protuber-ances being stamped or pressed in said cylinder to give the same irregularity of shape, the protuberances leaving passsame irregularity of shape, the protuberances leaving pass-ages for the fluid entirely around the same, and having per-forations near their apices and bases, substantially as set forth. (7.) In a centrifugal creamer, the combination with the bowl, and means for operating the same, of a sheet-metal cylinder with discontinuous peripheral protuberances on the outside and corresponding recesses on the inside, the pro-tuberances being entirely surrounded with fluid-passages adtuberances being entirely surrounded with fluid-passages ad-mitting both a horizontal movement of the fluid and a vertical flow as it gradually passes to its exit, said cylinder having perforations for the cream and blue milk, all sub-stantially as set forth. (8.) In a centrifugal creamer, the combination with a rotary bowl, and means for operating the same, of a perforated partition, comprising a piece of impressed sheet-metal turned into a cylindrical form, the impressions due to the stamping forming peripherally dis-continuous perforated protuberances on one side of the cylinder and recesses at the other side, the protuberances admitting a vertical flow of fluid between, substantially as set forth. (9.) In a centrifugal creamer, the combination with the bowl, and means for operating the same, of a sheetwith the bowl, and means for operating the same, of a sheet-metal cylinder with protuberances and perforations, and a frame having partitions forming a vertical series of cham-bers, the outer edges of the said partition extending out to the inner side of the cylinder at the bases of the protuber-ances and ducts, whereby the bowl may be supplied with milk at one end, and the cream and blue milk may be separately emitted at the other, substantially as set forth. (10.) In a centrifugal creamer, the combination with the bowl, and means for operating the same, of a sheet-metal cylinder having protuberances and perforations, and a frame comprising an imperforate milk-supply tube, having parti-tions forming a vertical series of chambers, and a flange on with the bowl, and means for operating the same, of a sheettions forming a vertical series of chambers, and a flange on which the said cylinder is seated, substantially as set forth. (11.) In a centrifugal liquid separator, the combination with the bowl, and means for operating the same, of the milk-supply tube, open to receive the milk at one end of the bowl and to deliver the same at the other, a series of partitions m fastened upon said tube and extending laterally therefrom, and forming chambers therebetween, said chambers having open communication with one another near said milk-supply

tube, to allow a flow of cream at the cream-wall, and direct communication of the said milk-tube with said chambers being cut off or closed, to prevent an intermingling of the new milk with the cream of the cream-wall, substantially as new milk with the cream of the cream-wall, substantially as set forth. (12.) In a centrifugal separator, the combination with the bowl, and means for operating the same, of the new-milk supply-tube, open to receive the milk at one end of the bowl and to deliver the same at the other, a series of parti-tions fastened thereto and extending laterally therefrom, forming chambers between, which are open to one another near said tube, to allow a flow of cream at the cream-wall, wings n arranged between said partitions and extending from one to another to strengthen said partitions in their re-lations to one another, substantially as set forth. (Specification, 12s.; drawings, 11s.)

F. WALDEGRAVE, Registrar.

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

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

Provisional Specifications.

Patent Office.

Wellington, 23rd May, 1899. PPLICATIONS for Letters Patent, with provisional A No. A specifications, have been accepted as under :--No. 11540.--14th April, 1899.--ANDREW MILLAR LEGGE and ERNEST HENRY CRADDOCK, both of Auckland, New Zealand, Plumbers and Gasiitters. An attachment to

meters or gas-fittings to indicate leakage of gas. No. 11577.—1st May, 1899.—CHARLES BOOCOCK, of 183, Hereford Street, Christchurch, New Zealand, Tanner. An improved liquid for use in chrome tanning, and process for

producing same. No. 11578.—3rd May, 1899.—Joseph Moran, of Pal-merston North, New Zealand, Bootmaker. An improved

mersion North, New Zealand, Bootmaker. An improved boot or shoe making and repairing last. No. 11584.-3rd May, 1899.-JOHN REES, of 137, Fen-wick Street, North Carlton, Victoria, Engineer, and JOHN WREN, of 35, Ballarat Street, Collingwood, Victoria, Finan-cier. Improvements in and connected with fans and their

motors, and message-boxes on the air-pipes therefrom. No. 11596.—5th May, 1899.—WILLIAM JOSEPH ROEBUCK, of Dunedin, New Zealand, Dredging Engineer. An im-

of Dunedin, New Zealand, Dredging Engineer. An im-provement in revolving gold-saving screens. No. 11598. — 8th May, 1899. — MATTHEW GAWTHORP HEELES, of 54, Lambton Quay, Wellington, New Zealand, Manager of Company. Improvement in blanketing for goldsaving.

No. 11599.--4th May, 1899.-GEORGE BALLARD, of Buck-No. 11595.—411 May, 1050.—6150805 Dalland, of Look-land, Auckland, New Zealand, Farmer. A spring-tooth subsoling attachment to ploughs.
 No. 11601.—8th May, 1899.—JOSEPH EDWARD NEWTON, of 183, Hereford Street, Christchurch, New Zealand, Meat-

preserver. Improved preserving-retort. No. 11603.—10th May, 1899.— CHARLES LAFFERTY, of Hill's Road, St. Albans, Canterbury, New Zealand, Bootmaker. Improved bottom wash for the soles of boots, shoes, and

No. 11604.—9th May, 1899.—DANIEL McKAy, of Rangiora, Canterbury, New Zealand, Tinsmith. An adjustable strainer for milkpail.

for milkpail. No. 11606.--11th May, '1899.--PETER BEV, of Talbot, Victoria, Cooper, &c. Improvements in rotatable barrels or vats, for agitating finely divided ores and sludge in the presence of mercury, or cyanide or other solutions. No. 11612.--11th May, 1899.--LOUIS THURNAUER, of Cromwell Buildings, 366, Bourke Street, Melbourne, Vic-toria, Merchant, but late of 83, Farringdon Road, London, Europud (nomines of Max Grastz, of 36, Lauguzerstrasse)

England (nominee of Max Graetz, of 36, Lausitzerstrasse, 31, Berlin, Germany, Lamp-manufacturer). Improvements in and connected with acetylene-generators. No. 11615.—12th May, 1899.—CHARLES FELTON Scott, of 6214, Sellers Street, Pittsburg, Penusylvania, United States of America, Elocatical Engineer. Improvement in sector.

of America, Electrical Engineer. Improvements in systems of electrical distribution.

of electrical distribution. No. 11616.—12th May, 1899.—WILLIAM ABRAHAM SHORE, of 2, Commercial Chambers, Manse Street, Dunedin, New Zealand, Dredge-master. An improved gold-saving mat. No. 11617.—12th May, 1899.— ROBERT HANITCH HASSLER, of 536, Illinois Street North, Indianapolis, Indiana, United States of America, Electrical Engineer. Improvements in preed varying devices, and electric motors for use therein speed-varying devices, and electric motors for use therein.

No. 11623.—15th May, 1899.—HENRY CLAYTON FRANKLIN, of 2, Commercial Chambers, Manse Street, Dunedin, New Zealand, Carpenter. An improved clinical table, "readingdesk, and cupboard.

No. 11626.—16th May, 1899.—JOHN OLIVE SHOBLAND, Accountant, and ALEXANDER ANDERSON, Engineer, both of Wellington, New Zealand. A new or improved water-heat-ing apparatus, chiefly for use with gas cooking appliances. F. WALDEGRAVE,

Registrar.

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

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

Letters Patent sealed.

IST of Letters Patent sealed from the 28th April, 1899, to the 16th May, 1899, inclusive :--No. 10351.-S. Soffe, fastening sash-lines. No. 11312.-A. C. Christiansen, apparatus for weighing

milk. &c.

milk, &c.
No. 11321.-J. Leather, ventilator.
No. 11322.-W. Nernst, electric lamp.
No. 11323.-J. Bastick, manufacturing calcium-carbide.
No. 11324.-E. Petersson, treating sulphurous ores.
No. 11325.-C. S. Bradley and C. B. Jacobs, manufacturing soluble salts of barium.
No. 11327.-J. E. Kingsbury, telephonic system.
No. 11330.-H. Franks, displaying-device.
No. 11358.-J. Symington, pumping and winding machinerv.

chinery. No. 11359.—The Linotype Company, Limited, electrical heating (J. Place and M. Barr). F. WALDEGRAVE,

Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

No. 7604.-P. de Wilde, extracting gold from ores, &c. 9th May, 1899. No. 7629.-A. Billens, kerosene-pump. 22nd May, 1899. No. 7661.-The Cutlan Patent Sew-round Machine Syndi-

Limited, boot-sewing machine (J. and J. Cutlan). cate,

12th May, 1899. No. 7726.—A. D. Dobson, gear for hoist. 18th May, 1899.

THIRD-TERM FEES.

No. 5562 .- S. Straker, pulverising grain, &c. 12th May, 1899.

No. 5581.—P. J. Ogle, drilling-machine. 12th May, 1899. No. 5701.—J. G. Bower, jun., machine for manufacturing wire-netting. 18th May, 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.]

the date is that of registration.] N O. 6048.—Frank Kinsey, of 806, Marquette Building, Chicago, United States of America, cau. One-third interest. [J. Zimmerman.] 13th May, 1899. No. 10485.—Archibald John McClemens, of Chatswood, New South Wales, acetylene-gas generator. [R. H. Jamie-son.] 11th May, 1899. No. 11183.—The Globe Trading Company (Limited), of Broad Street House, New Broad Street, London, England, treating animal fats. [C. H. Izard—J. N. Harris.] 11th May, 1899. 1899.

F. WALDEGRAVE, Registrar.

Notice of Request to amend Specifications.

Patent Office.

Patent Office, Wellington, 23rd May, 1899. A REQUEST for leave to amend the specification (in-cluding drawings) relating to the under-mentioned application for Letters Patent has been received, and is open to public inspection at this office. Any person may at any time within one month from the date of this Gazette give me notice in writing of opposition to the amendment. A fee of 10s. is payable thereon. No. 11464.—21st March, 1899.—EDWARD JONES, of 103, Queen Street, Auckland, New Zealand, Saddler. Improve-ments in horse-covers.

ments in horse-covers.

The proposed amendments are as follow :--To insert in place of the words "between the forelegs," lines 6 and 7, page 2, the words "beneath the belly," and in place of the word "breast" in the latter line the word "sides." sides.

To alter Fig. 7 of the drawings. The applicant states, "I desire to make this amend-ment in order that my invention may be more correctly described."

F. WALDEGRAVE, Registrar.

Request for Correction of Clerical Errors.

N^{O. 11537.—W.} F. WILLIAMS, tire and rim.

To alter " b^8 " on page 3 of the specification, in line 6 to " b^1 ," in line 7 to " b^3 ," in line 8 to " b^2 "; and " b^4 " in the latter line to " b^8 ."

F. WALDEGRAVE, Registrar.

Applications for Letters Patent lapsed.

IST of applications for Letters Patent (with which

F. WALDEGRAVE,

Registrar.

Letters Patent void.

IST of Letters Patent void through non-payment of fees from the 11th May, 1899, to the 23rd May, 1899, inclusive :---

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 7424.—G. M. Robb, candle-extinguisher. No. 7427.—F. J. King, wire-strainer. No. 7429.—H. Benjamin and C. W. Anderson, sanitary

No. 7429.—H. Benjamin and C. W. Anderson, sanitary closet-appliance. No. 7433.—H. Dixson, tobacco-pipe (F. W. Schroeder). No. 7434.—The Richardsen and Schroeder Patent Smoke-consuming, Fuel-economizing, and Steam-boiler Company, Limited, steam-boiler and furnace (J. Richardsen). No. 7435.—H. J. Wylde, plummet-crane and chain-marker. No. 7439.—Ryder and Co., Limited, bottling-and-stopper-ing machine (T. Sutcliffe). No. 7449.— The Southland Farmers' Implement and Engineering Company, Limited, gear-lock for traction-engine (J. Macalister).

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

Nil.

F. WALDEGRAVE,

Registrar.

1993 (J. 1997)

THE NEW ZEALAND GAZETTE.

Applications for Registration of Trade Marks.

Patent Office,

No. of application : 2642. Date : 25th April, 1899.

Wellington, 23rd May, 1899. A PPLICATIONS for registration of the following trade marks have been received. Notice of opposition to the registration of any of these applications may be lodged at this office within two months of the date of this Gazette. Such notice must be in duplicate, and accompanied by a fee of ± 1 .

No. of application : 2494. Date : 29th September, 1898.

TRADE MARK.



NAME

THE MURALO COMPANY, a corporation duly organized under the laws of the State of New York, and having an office and place of business at New Brighton, Staten Island, New York, United States of America.

No. of class: 17.

Description of goods: Architectural materials, surfacefinish materials for cornices, mouldings, &c.

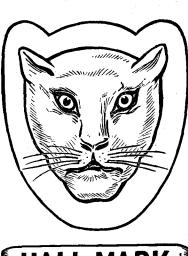
No. of application: 2589. Date: 10th May, 1899.

The word **RÉVEILLE**

THE PERFECT COFFEE COMPANY, LIMITED, of 9, Arundel Street, Strand, London, England, Manufacturers of Liquid Coffee.

No. of class: 42.

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



TRADE MARK.



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

NAME.

T. H. HALL AND Co., of Auckland, New Zealand, Merchants.

No. of class: 42.

Description of goods: Butter, cheese, bacon and hams, flour, rolled oats, oatmeal, tinned meats and tinned fish, and such other articles as will fall within the class.

No. of application: 2649. Date: 12th May, 1899.



The applicants claim that the said trade mark has been used by them and their predecessors in business, in respect of the said goods, for upwards of five years before the 31st January, 1876.

NAME:

NETTLEFOLDS, LIMITED, of 16, Broad Street, Birmingham, Warwickshire, England, and 2, Fen Court, Fenchurch Street, London, E.C., England, Screw-manufacturers, Ironmasters, and Wire-drawers.

No. of class: 5.

Description of goods: Unwrought and partly wrought in manufacture.

No. of application : 2650. Date: 12th May, 1899.

TRADE MARK.

(The mark as in preceding notice, No. 2649.)

The applicants claim that the said trade mark has been used by them and their predecessors in business, in respect January, 1876.

NAME.

NETTLEFOLDS, LIMITED, of 16, Broad Street, Birmingham, Warwickshire, England, and 2, Fen Court, Fenchurch Street, London, E.C., England, Screw-manufacturers, Iron-masters, and Wire-drawers.

No. of class: 13.

Description of goods: Metal goods not included in other olasses.

No. of application: 2651. Date: 12th May, 1899.



The applicants claim that the said trade mark has been used by them and their predecessors in business, in respect of the said goods, for one year before the 31st January, 1876.

NAME.

NETTLEFOLDS, LIMITED, of 16, Broad Street, Birmingham, Warwickshire, England, and 2, Fen Court, Fenchurch Street, London, E.C., England, Screw-manufacturers, Iron-masters, and Wire-drawers.

No. of class: 5. Description of goods: Unwrought and partly wrought metals used in manufacture.

No. of application: 2652. Date: 12th May, 1899.

TRADE MARK.



The applicants claim that the said trade mark has been used by them and their predecessors in business, in respect of the said goods, for one year before the 31st January, 1876. NAME.

NETTLEFOLDS, LIMITED, of 16, Broad Street, Birmingham, Warwickshire, England, and 2, Fen Court, Fenchurch Street, London, E.C., England, Sorew-manufacturers, Ironmasters, and Wire-drawers.

No. of class : 5.

Description of goods: Unwrought and partly wrought metals used in manufacture.

No. of application: 2653. Date: 12th May, 1899.

TRADE MARK.



NAME.

NETTLEFOLDS, LIMITED, of 16, Broad Street, Birmingham, Warwickshire, England, and 2, Fen Court, Fenchurch Street, London, E.C., England, Screw-manufacturers, Iron-masters, and Wire-drawers.

No. of class: 5. Description of goods: Unwrought and partly wrought metals used in manufacture.

No. of application : 2654. Date: 12th May, 1899.



The essential particulars of the trade mark are the following—the combination of devices and the word "Life-boat"; and the applicants disclaim any right to the exclusive use of the added matter, except in so far as it con-sists of their own name and address.

NAME.

SALMON AND GLUCKSTEIN, LIMITED, of 41, Clerkenwell Road, London England, Tobacco-manufacturers.

No. of class: 45.

Description of goods : Tobacco, whether manufactured or unmanufactured.

MAY 25.]

The word

No. of class ; 45.

No. of application: 2659. Date: 12th May, 1899.

Trade Marks registered. 288

IST of Trade Marks registered from the 11th May, 1899, to the 23rd May, 1899, inclusive :---No. 2040; 2338.—Alaska Packers' Association; Class 42. (Gazette No. 20, of the 2nd March, 1899.) No. 2041; 2529.—Kenderdine and Kirkup; Class 47. (Gazette No. 88, of the 8th December, 1898.) No. 2042; 2285.—Dr. Tibbles' Vi-cocoa, Limited; Class 42. (Gazette No. 20, of the 2nd March, 1899.) No. 2043; 2435.—Marshall's Chemical Company, Limited; Class 2. (Gazette No. 20, of the 2nd March, 1899.) No. 2044; 2461.—Marshall's Chemical Company, Limited; Class 3. (Gazette No. 20, of the 2nd March, 1899.) IST of Trade Marks registered from the 11th May,

No. 2044; 2401.—Marshall's Chemical Company, J Class 3. (*Gazette* No. 20, of the 2nd March, 1899.) No. 2045; 2565.—Dubonnet Frères; Class 43. No. 20, of the 2nd March, 1899.) No. 2046; 2567.—J. and R. Morley; Class 38. No. 20, of the 2nd March, 1899.) No. 2047; 2569.—J. and R. Morley; Class 38. (Gazette

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No. 20, of the 2nd March, 1899.)
 No. 2047; 2569.—J. and R. Morley; Class 38. (Gazette
 No. 2048; 2572.—J. and R. Morley; Class 38. (Gazette
 No. 2048; 2573.—J. and R. Morley; Class 38. (Gazette
 No. 2049; 2573.—J. and R. Morley; Class 38. (Gazette
 No. 2049; 2573.—J. and R. Morley; Class 38. (Gazette
 No. 2049; 2573.—J. and R. Morley; Class 38. (Gazette
 No. 2050; 2599.—A. E. Little and Co.; Class 38. (Gazette
 No. 2050; 2599.—A. E. Little and Co.; Class 38. (Gazette
 No. 2050; 2599.—A. E. Little and Co.; Class 38. (Gazette
 No. 2051; 2606.—The British Cyanides Company, Limited;
 Class 1. (Gazette No. 20, of the 2nd March, 1899.)
 No. 2052; 2612.—J. Robinson and Sons; Class 44. (Gazette
 No. 2053; 2614.—Maponite, Limited; Class 49. (Gazette
 No. 2053; 2614.—Maponite, Limited; Class 46. (Gazette
 No. 2055; 2615.—J. Carter and Co.; Class 46. (Gazette
 No. 2055; 2616.—A. and T. Burt, Lim te ; Class 5. (Gazette No. 20, of the 2nd March, 1899.)
 No. 2055; 252.—W. Docker; Class 1. Gazette No. 2, of the 5th January, 1899.)
 No. 2057; 2617.—J. J. Daily; Class 50. (Gazette No. 25, of the 16th March, 1899.)
 F. WALDEGRAVE, Excitation 1899.)

F. WALDEGRAVE,

Registrar.

Trade Mark Renewal -fee paid.

[NOTE.-The date is that of payment.] N^{O. 85/1740.-H.} Campbell and Co. 4th May, 1899. F. WALDEGRAVE, Registrar.

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

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

the Courinouse. Specifications of all Patents and Letters of Registration applied for in the colony can be inspected at the Patent Office, and particulars of Patents, &c., granted in England, the United States, Canada, and the Australian Colonies can be seen at the Patent Office Library, Wellington.

The following publications of this office can be had from the Government Printer:— 1. Printed Specifications to the end of the year 1879. 2. Annual Lists of Letters Patent and Letters of Registra-tion conflict for and Detter that the test of the second patient of

annual Reports of the Registrar, containing list of Letters Patent, nature of Letters Patent, &c., applied for during the years 1889 to 1897, inclusive.

The Patent Office Supplement to the New Zealand Gazette is published fortnightly, and contains all notices required by law to be gazetted concerning Patents and Trade Marks. It also contains particulars of lapsed applications for Patents and of expired Letters Patent, and other information useful to inventors, manufacturers, and others. This Supplement is issued free to subscribers to the Gazette, and to others on payment of a special subscribers of the par payment of a special subscribers of the special able in advance to the Government Printer.

No. of application : 2664. Date: 18th May, 1899.

The word

TRADE MARK.

TRIFLEX.

TRADE MARK.

SWEETHEARTS

NAME.

SALMON AND GLUCESTEIN, LIMITED, of 41, Clerkenwell Road, London, England, Tobacco-manufacturers.

Description of goods: Tobacco, whether manufactured or unmanufactured

NAME.

THE DUNLOP PNEUMATIC TIRE COMPANY, LIMITED, of 14, Regent Street, London, S.W., England, Manufacturers.

No. of class 13. Description of goods: Wire fastening-devices for use in pneumatic tires.

No. of application : 2665. Date: 18th May, 1899.

The word

TRIFLEX.

TRADE MARK.

NAME.

THE DUNLOP PNEUMATIC TIRE COMPANY, LIMITED, of 14, Regent Street, London, S.W., England, Manufacturers.

No. of class: 40. Description of goods: Pneumatic tires of indiarubber.

> F. WALDEGRAVE Registrar.

By Authority : JOHN MACKAY, Government Printer, Wellington.

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