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# SUPPLEMENT

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Patent Agent registered.

Patent Office, Wellington, 4th March, 1903.

T is hereby notified that

WILLIAM GEORGE SOMERVILLE, of Wellington, New Zealand, Solicitor, has been registered as a Patent Agent.

F. WALDEGRAVE,

Registrar.

Printing Drawings in Gazette.

IN advertising the acceptance of complete specifications in the *Gazette* it is intended to reproduce a portion of the drawings. Only one view can as a rule be shown, and it is desirable that applicants should, in preparing their drawings, include a view which, while serving as one of the figures referred to in the specification, illustrates the general construction of the invention as clearly as possible. For this purpose a plan, elevation, section, or perspective view can be furnished at the option of the applicant. It will be convenient if in one of the drawings this figure is on a sheet by itself without border-line or signature. This, how-A

ever, will not be insisted on, it being the desire of the office to avoid putting applicants to extra trouble or expense in the matter. The following regulations already in force with regard to the drawings must, however, be strictly carried out :-

regard to the drawings must, however, be strictly carried out:— One copy of the drawings must be on blue transparent linen or tracing-cloth, 13 in. by 8 in. or 13 in. by 16 in., with a marginal line  $\frac{1}{2}$  in. or 1 in. from the edge. All the lines must be absolutely black, Indian ink of the best quality being used, and the same strength of colour of the ink main-tained throughout the drawing. Any shading must be in lines clearly and distinctly drawn, and as open as is con-sistent with the required effect. Section-lines should not be too closely drawn. No colour must be used for any purpose upon the drawing, and all letters and figures of reference must be bold and distinct. The drawings must not be folded, but be delivered at the Patent Office either in a perfectly flat state, or rolled upon a roller or in a stiff case, so as to be free from creases or breaks. The signature must be in perfectly black ink, and no other writing, impressions of stamps, or the like ought to appear on any part of the sheet.

Notice of Acceptance of Complete Specifications.

Patent Office, Wellington, 5th March, 1903. COMPLETE specifications relating to the undermen-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. 14571.—3rd March, 1902.— JOHN ALSTINE SECOR, of 1177, Dean Street, Brooklyn, New York, United States of America, Mechanical Engineer. Improvements in explosion motors.

Claims.—(1.) The combination with the crank-shaft of an explosion motor and the shaft of a revoluble mechanism aligned with the said crank-shaft, and driven thereby, of a hollow base having the mechanical properties of a boxed girder, which said base supports both the said motor and

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the said revoluble mechanism, and has within it a tank for liquid fuel interposed between the motor and the revoluble mechanism to enable the volume of liquid in the tank to intercept the vibrations from the motor and prevent their (2.) The combination with the crank-shaft of an explosion (2.) The combination with the crank-shaft of an explosion motor and the shaft of a dynamo aligned with the said crank-shaft, and driven thereby, of a hollow base having the mechanical properties of a boxed girder, which said base supports both the said motor and the said dynamo, and has within it a tank for liquid fuel interposed between the motor and the dynamo to enable the volume of liquid in the tank to intercept the vibrations of the motor and prevent their transmission to the dynamo when the latter is in opera-tion, as described. (3.) The combination with a chambered or hollow base for holding a volume of liquid for explo-sive use, an explosion motor fixed upon said base and arranged to receive the liquid therefrom, a crank-shaft arranged to be driven from the connecting-rod of the motor, a dynamo supported on said base with the chamber of the latter so arranged that its contents cushions the dynamo against vibrations from reciprocating-parts of the motor, a a dynamo supported on said base with the chamber of the latter so arranged that its contents cushions the dynamo against vibrations from reciprocating-parts of the motor, a driven shaft for carrying the dynamo aligned with the crank-shaft, and a coupling for connecting and discon-necting the driven shaft to and from the crank-shaft, as described, substantially as set forth. (4.) The combination with a chambered or hollow base for holding a liquid for explosive use, an explosion motor fixed upon the said base and arranged to receive the liquid therefrom, a crank-shaft arranged to be driven from the connecting rod of the motor, a dynamo supported on said base, a driven shaft for carrying the dynamo placed in the axial line of the crank-shaft, a coupling for connecting and disconnecting the driven shaft to and from the crank-shaft, and a pulley fast on the crank-shaft arranged to serve the double purpose of transmitting power from the motor by power from an independent source in driving the dynamo, as described. (5.) The combi-nation with a chambered base for holding a volume of liquid for explosive use, an explosion motor fixed upon said base and arranged to receive the liquid therefrom, a crank-shaft arranged to be driven from the connecting-rod of the motor, a dynamo supported on said base with the chamber of the latter so arranged that its contents cushions the dynamo against vibrations from the reciprocating-parts of the motor, a driven shaft for carrying the dynamo aligned to the crank-shaft, a coupling for connecting and disconnecting the shaft section to and from the reak-shaft section, and a pulley fast on the crank-shaft section arranged to serve the double purpose of transmitting power from the motor and of temshaft, a coupling for connecting and disconnecting the shaft section to and from the crank-shaft section, and a pulley fast on the crank-shaft section arranged to serve the double purpose of transmitting power from the motor and of tem-porarily substituting or supplementing the motor by power from an independent source in driving the dynamo, the whole combined for use and operation, substantially as set forth. (6.) An electric igniting-apparatus for explosion mo-tors, comprising the combination with two relatively mov-able contact points, and air-controlling inlet-valve, a fuel-controlling inlet-valve, and a governor for controlling the operation of said valves, of a cam-device mechanism for operating said cam device in unison with the crank-shaft of the motor, mechanism for operating said valves in unison with said cam device, mechanism for moving one of the contact points with reference to the other for the production of a spark, a movable device arranged in juxtaposition with of a spark, a movable device arranged in juxtaposition with the cam device and connected with the mechanism for the cam device and connected with the mechanism for operating the contact point, and means for changing the position of said movable device with reference to the cam device to advance or delay, as the case may be, the action of the cam, and consequently the movement of the contact point with reference to the motion of other parts of the motor, as described. (7.) An electric igniting-apparatus for explosion motors, comprising the combination with an ex-locion guilader an ignition plug inserted in said ovaluate plosion cylinder, an ignition plug inserted in said cylinder, an insulated terminal rod extended through the plug, its an instituted terminal for extended through the ping, its inner end having a contact point within the cylinder, an axially mevable terminal rod, also extended through the plug, bent at its inner end, with a terminal point thereon to operate in conjunction with the contact point of the insu-lated terminal irod, and with a lever-arm at its outer end, of lated terminal icod, and with a lever-arm at its outer end, or a cam jogged or shouldered to permit a sudden movement of the parts acted upon by the cam, mechanism for actuating from said cam, the arm of the terminal rod, means for revolving the cam from a driving-shaft at a speed in a definite ratio to that of the driving-shaft, a governor also operated from said shaft, an air-inlet valve, a fuel - inlet valve, means for controlling said valves from the action of the generated mechanism actuated by the governor factor valve, means for controlling said valves from the action of the governor, and mechanism actuated by the governor for changing the position of the terminal actuating-device with reference to the shoulder of the cam to advance or delay, as the case may be, the release of said device, and consequently to advance or delay the igniting-action of the terminal rods with reference to the operation of other parts of the motor, as described. (8.) An electric igniting apparatus for explosion motors, comprising the combination with an

explosion cylinder, an ignition plug inserted into said cylinder, an insulated terminal rod extending through the plug with a contact point at its inner end and within the cylinder, an axially movable terminal rod also extended through the ignition plug, bent at its inner end with a contact point thereon to operate in conjunction with the con-tact point of the insulated terminal rod, and with a leverarm at its outer end, a jogged or shouldered cam, an axially movable rod external to the cylinder, having at is outer end a radial arm and at its inner end a radial lever, means for transmitting motion from the said radial arm to the lever-arm of the movable terminal rod, a movable device con-nected with said radial lever and bearing against the cam to become more theorem. become movement therefrom, and means for varying the position of said device with reference to the cam to advance or delay, as the case may be, the action of the cam upon said device to corresponding advance or delay the operation of the contact points in producing the igniting-spark with reference to the operation of other parts of the motor, as de-scribed. (9.) An electric igniting-apparatus for explosion motors, comprising in its structure the combination with an motors, comprising in its structure the combination with an explosion cylinder, an ignition-plug inserted in said cylinder, an insulated terminal rod extended through the ignition-plug with a contact point at its inner end and within the cylinder, an axially movable terminal rod also extended through the ignition-plug, bent at its inner end and provided thereon with a contact point to operate in conjunction with the contact point of the insulated terminal rod, and with a lever-arm at its outer end, of a jogged or shouldered cam, an elbow lever loose on the shaft of said cam, and having a projecting pin on its inner arm, an axially movable rod an endow lever loose on the shalt of said carn, and having a projecting pin on its inner arm, an axially movable rod extended to the cylinder, having at its outer end a radial arm and at its inner end a radial lever, means for transmitting motion from the said radial arm to the lever arm of the movable terminal rod, a rod pivoted at one end to the radial lever of the said axially movable rod and at the other arranged to bear sidewise against the pin of the elbow lever and endwise against the periphery of the cam, a governor and mechanism for operating the elbow lever from the governor to advance or delay, as the case may be, the action of the cam in timing the ignition action of the contact pieces with reference to the operation of other parts of the motor, as described. (10.) An elec-tric igniting-apparatus for explosion motors, comprising in its structure the combination with an explosion cy-linder, a valve for admitting air to said cylinder, a valve for admitting fluid fuel to said cylinder, and a ball governor operated from the crank-shaft of the motor, a jogged cam operated from the shaft of said governor, an elbow lever loose on the shaft of said cam, a lever having three-fold arms, a rod which connects one of the arms of said three-fold lever movable terminal rod, a rod pivoted at one end to the radial with one arm of the ellow lever, a lever fast on the shaft of the air-inlet valve, a rod which connects the part last men-tioned lever with another of the arms of the three-fold lever, a second lever fast to the air-inlet valve, a lever fast to the fuel-inlet valve, a rod which connects said lever of the air-inlet valve with the said lever of the fuel-inlet valve, and a rod which connects the third arm of the three-fold lever with the sliding sleeve of the governor, of a projecting pin on the inner arm of the elbow lever, an axially movable rod extended Inner arm of the elbow lever, an axially movable rod extended to the cylinder, and having a radial arm at its upper end, a radial lever-arm on the inner end of the said rod, a longi-tudinally movable rod pivoted on the radial lever-arm with its end bearing sidewise against the pin on the elbow lever, and with its end against the circumference of the arm, means for retaining the longitudinally meable and with its end are for retaining the longitudinally movable rod with its end confor retaining the longitudinally movable rod with its end con-tact with the cam, means for retaining the said movable rod in its endwise contact with the cam, a radial arm on the opposite end of the axially movable rod, an ignition-plug in-serted in the cylinder, an insulated terminal rod extended through the ignition-plug with a contact point at its inner end, an axially movable terminal rod also extended through the ignition-plug, bent at its inner end, and provided thereon with a contact point to operate in conjunction with the con-tact point of the insulated terminal rod, and with a levertact point of the insulated terminal rod, and with a lever-arm at its outer end, and means for actuating said lever-arm from the radial arm on the upper end of the axially movable rod, whereby the position of the longitudinally movable rod with reference to the cam is automatically varied to advance or delay, as the case may be, action of the contact points with reference to the movement of other parts of the motor, as described. (11.) The combination with the oil-cup in a feed mechanism for supplying liquid fuel to explosive motors of means for providing relatively higher level of the fuel in the cup for the normal working of the motor, means for retaining at a relatively lower level the fuel in the cup when the motor is not in motion, means for feeding fuel from the cup to start the motor into active operation from the vacuum or partial vacuum induced in a cylinder by an initial motion of the piston therein, and means for auto-matically feeding the fuel from the higher level in the cup to the motor in its subsequent active or working opera-tion, as described. (12.) In a feed mechanism for supplying

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liquid fuel in explosive motors, the combination of an oil-cup, means for forcing liquid fuel into the oil-cup to a height greater than that of the outlet from the cup to the motor, an overflow-pipe the main inlet to which from the cup is also of a height greater than that of the outlet from the cup to the motor, and which has an inlet-orifice below the level of the inlet to the cup and higher than the outlet from the cup to the motor, and means for closing the outlet to the motor, as described. (13.) In a feed mechanism for feeding liquid fuel in explosive motors, the combination with an oil-cup of a force-pump for supplying fuel to the oil-cup, an overflow-pipe the main inlet to which from the oil cup is higher than the inlet into the cup, and which has an inlet-orifice below its main inlet and higher than the outlet from the cup to the motor, means for closing the outlet to the motor, as described. (14.) In a feed mechanism for feeding liquid fuel in explosive motors, the combination with an oil-cup of a force-pump for feeding and a pipe for sup-plying fuel to the oil-cup, a feed-pipe for feeding the fuel from the cup to the motor, the inlet to which feed-pipe is lower than the fuel-inlet to the cup, a valve for closing said pipe, an overflow-pipe the main inlet of which is higher than the fuel-inlet to the cup, and which has an inlet-orifice which is lower than said main inlet to said pipe, but higher than the fuel-inlet to the cup to the feed-pipe, and a device which connects the piston of the pump with an adjacent valve-stem of the motor, as described. (15.) In a feed mechanism for feeding liquid fuel in explosive motors, the combination with an oil-cup, and means for supplying liquid fuel thereto, of an outlet feed-pipe the inlet to which from the cup is lower than the inlet for the fuel into the cup, and which has an outlet open-ing into said passage, a valve and valve-seat for controlling the feed of the fuel outward through said opening, an over-flow-pipe the inlet to which is higher than the liquid fuel in explosive motors, the combination of an oil-cup, means for forcing liquid fuel into the oil-cup to a height

No. 14859.-6th May, 1902.-HUGH GUNN, of Auckland, New Zealand, Locomotive Engineer. An improved spark-stopper for use in engine smoke-stacks.\*

[NOTE.—The title in this case has been altered. See list "Pro-visional Specifications," *Gazette* No. 41, of the 29th May, 1902.]

Claims.—(1.) In combination with engine smoke stacks and boxes, under and upper wire-netted meshes internally fitted thereto in the manner specified, for the purpose set forth, substantially as described. (2.) The arrangement and fitting of the under and upper wire-netted meshes with the bands, brackets, and standards to the inside of the smoke stack and box in the manner specified, for the purpose set forth, substantially as described. (Specification, 2s.; drawings, 1s.)

No. 14899.-22nd May, 1902.-SAMUEL SHAW, of 50, Chestnut Street, East Richmond, Victoria, Gasfitter. Improvements in self-lighting fittings for gas-burners.

Claims.—(1.) In self-lighting fittings for gas-burners, in combination, a ball or shot valve G upon a pipe E and means for allowing an escape of gas at the valve when on its seat, a tube H enclosing the pipe E and forming at its head a seat for the ball valve, substantially as and for the purposes described. (2.) In combination, a dome tube A, a valve-box B receiving same with valve-seat B<sup>3</sup>, valve C, a tube D fitting into the valve-box, a pipe E fitting into the tube and with serrated top, a tube H fitting on the pipe E and carry-ing pilot-tube J, a valve-seat at head of tube H, and a valve G in the tube and means for regulating the bore of the pipe E, substantially as and for the purposes described. (3.) The combination and arrangement of the whole of the parts, for the purposes described, and substantially as illustrated on the drawings. drawings

(Specification, 4s. 3d.; drawings, 1s.)

No. 14921.—26th May, 1902.—THOMAS RUSSELL, of Car-lyle Street, Sydenham, Christchurch, New Zealand, Fore-man of Works. Improved street-sweeping machine.\*

Claims.—(1.) In a sweeping-machine, in combination, an inner frame within the main frame of the machine, chains passing around rollers and sprocket wheels having shafts pivoted to the said frame, transverse brushes mounted upon the chains, and means for transmitting motion from the travelling wheels to the said sprocket wheels, substantially as set forth. (2.) In a sweeping-machine, in combination, an inner frame within the main frame of the machine, chains passing around rollers and sprocket wheels having shafts

pivoted to the said frame, transverse brushes mounted upon the chains, means for transmitting motion from the tra-velling wheels to the said sprocket wheels, a shute in which Veiling wheels to the said sprocket wheels, a shute in which the brushes pass, and a cart for receiving swept-up material from the shute, substantially as set forth. (3.) In a sweep-ing-machine, in combination, an inner frame within the main frame of the machine, chains passing around rollers and sprocket wheels having shafts pivoted to the said frame, transverse brushes mounted upon the chains, a shute having its lower part hinged to its upper part and up which the brushes pass, a shaft pivoted to the main frame having a lever and arms, chains connecting the said arms to the hinged part of the shute, and links connecting the said arms to the inner frame, substantially as set forth. (4.) In a sweeping-machine, in combination, an inner frame within the main frame of the machine, chains passing around rollers and sprocket wheels having shafts pivoted to the said frame, transverse brushes mounted upon the chains, spur wheels upon the travelling wheels, spur pinions engaging with the spur pinions, sliding blocks in which the pinion-shaft is mounted, guides for the sliding blocks, springs operating upon the sliding blocks and eccentrics for throwing the spur pinions out of engagement with the spur wheels, substan-tically as est forth (5.) A suparing machine as musicing in the brushes pass, and a cart for receiving swept-up material Inounted, guides for the shifting blocks, springs operating upon the sliding blocks and eccentrics for throwing the spur pinions out of engagement with the spur wheels, substan-tially as set forth. (5.) A sweeping-machine comprising, in combination, a main frame carried upon side wheels and a trailing wheel, and having an arm extending upwardly, an inner frame within the main frame pivoted to the said arm, rollers and sprocket wheels mounted upon shafts pi-voted to the main frame, chains passing around the rollers and sprocket wheels, transverse brushes mounted upon the chains, spur wheels, transverse brushes mounted upon the chains, spur wheels, transverse brushes mounted upon the chains, spur wheels, the spur wheels, sprocket wheels upon the same shaft as the spur pinions, sliding blocks in which the pinion-shaft is mounted, guides for the sliding blocks, springs operating upon the sliding blocks and eccentrics for throwing the spur pinions out of engagement with the spur wheels, a shute upon which the brushes pass, a shaft pivoted to the main frame and having a lever and arms, chains connecting the said arms to the inner frame, substantially as set forth. (6.) The combination and arrangement of parts com-prising the improved street-sweeping machine, substantially as and for the purposes set forth, and illustrated in the drawings. (Specification 4s 6d : drawings 2s) drawings. (Specification, 4s. 6d. ; drawings, 3s.)

No. 14942.—24th May, 1902.—JAMES POYNTON EVANS, of Opotiki, Auckland, New Zealand, Tinsmith. An improvement in O.G. spouting.\*

Claims.—(1.) In galvanised-iron spouting, cutting away parts of the inner flange and bottom of the spouting, bending the uncut portion to the required angle, and then making the joint watertight by soldering, substantially as and for the purposes set forth. (2.) In galvanised-iron spouting, cutting away part of the inner flange to form vertical tabs and cutting away part of the bottom of the spouting to form horizontal tabs, bending one of the vertical tabs to a right angle, bending the uncut vertical portion of the spouting to the required angle, bending the other vertical tabs together, and closing the remainder of the joint by soldering, substantially as and for the purposes set forth. (Specification, 1s. 6d.; drawings, 1s.)

No. 14955.—5th June, 1902.—HENRY HUGH HENDERSON, of 80, Austin Street, Wellington, New Zealand, Accountant. Improved apparatus for employment in dusting, cleaning, and polishing floors, walls, and the like.\*

Claims.- (1.) The combination for the purpose indicated Claims.- (1.) The combination for the purpose indicated of a plate having a plurality of points projecting from its face and a socket to receive a handle fixed upon its back, as described. (2.) The combination for the purpose indicated of a plate having a surface provided with longitudinal and transverse V-shaped grooves. (Specification, 1s. 3d.; drawings, 1s.)

No. 15061.—30th June, 1902.—GEORGE CLAYDON, of 172, Gloucester Street, Christchurch, Canterbury, New Zealand, Mechanical Engineer. Improved method of and apparatus for supplying steam and air to furnaces.\*

Claims. -(1.) The combination, in apparatus for the purpose indicated, of a distributing-chamber designed to be submitted for one or more fire-bars of a furnace, means for supplying steam or air or steam and air to the interior of said chamber, and openings in said chamber through which steam or air or steam and air is or are delivered to the fuel

in the furnace, substantially as specified. (2.) The combina-tion, in apparatus for the purpose indicated, of a distributing-chamber, a cap fitting into an opening in the top of said chamber, ribs upon the under side of the cap between which air or steam or air and steam is discharged from the cham-ber, and means for conveying air or steam or air and steam to the interior of the chamber, substantially as specified. (3.) The combination, in apparatus for the purpose indicated, of a distributing-chamber designed to be substituted for one or more fire-bars of a furnace, a cap fitting an opening at the top of said chamber, ribs upon the under-side of the cap, means for conveying air or steam or air and steam to the chamber, the bottom of said chamber having apertures, a sliding plate having corresponding apertures and designed to open and close the apertures in the bottom of the chamber, and means for operating the sliding plate, substantially as specified. (4.) The combination, in apparatus for the pur-pose indicated, of a distributing-chamber designed to be sub-stituted for fire-bars of a furnace, a cap fitting an opening at the top of solid chamber, the under-side of the cap. pose indicated, of a distributing chamber designed to be sub-stituted for fire-bars of a furnace, a cap fitting an opening at the top of said chamber, ribs upon the under-side of the cap, means for conveying air or steam or air and steam to the chamber, and longitudinal ribs upon the chamber designed to prevent downward deflection of air or steam issuing be-tween said ribs of the cap, substantially as specified. (5.) The combination, in apparatus for the purpose indi-cated, of a plurality of distributing-chambers, apertures between each cap and chamber through which air thereto, substantially as specified. (6.) The combination, in ap-paratus for the purpose indicated, of a plurality of dis-tributing-chambers, a cap fitting an opening in the top of each chamber, apertures between each cap and chamber through which air or steam is discharged, a steam-pipe having a branch for each chamber, a nozzle upon the end of through which air or steam is discharged, a steam-pipe having a branch for each chamber, a nozzle upon the end of each branch, and a pipe upon each chamber having an open end opposed to one of said nozzles, as specified. (7.) The combination, in apparatus for the purpose indicated, of a plate designed to be substituted for fire-bars of a furnace, openings in said plate, a cap over each opening, apertures between the caps and plate for passage of air or steam, a closed chamber beneath the plate, and means for conveying air or steam or air and steam to the closed chamber, sub-stantially as specified. (8.) The combination, in apparatus for the purpose indicated, of a plate designed to be substi-tuted for fire-bars of a furnace, a plurality of openings in for the purpose indicated, of a plate designed to be substi-tuted for fire-bars of a furnace, a plurality of openings in said plate, a cap over each opening, a chamber beneath the caps, apertures beneath the caps through which steam or air is delivered from the chamber, an opening in said plate for the discharge of clinker and other matters, a sliding plate normally closing said opening, and a rod for operating the sliding plate, as specified. (Specification, 5s.; drawings, 2s.)

No. 15318.- 28th August, 1902.-FRANK COTTON, of Hornsby, New South Wales, Gentleman. Improvements in the utilisation of carbonaceous liquids as fuel.\*

- An improved apparatus for the utilisation of Claim. — An improved apparatus for the utilisation of carbonaceous liquids as fuel, characterized by the combina-tion of a receiving-chamber and vaporising-retort having an internal mixing-chamber communicating with both by means of perforations, a nozzle in the said vaporising-retort for the discharge of the gases produced, and the necessary steam- and oil-supply pipes, so arranged that the steam is superbeated and the oil heated prior to introducing into the receiving-chamber, as and for the purpose described, and substantially as illustrated in the drawings. (Specification, 3s. 3d.; drawings, 1s.) Claim.

No. 15537.—18th October, 1902.—ROBERT PEARCE GIB-BONS, of Kopu, Thames, Auckland, New Zealand, Sawmill-proprietor. An improved compounded steam engine.\*

Claims.—(1.) In compound engines, cylinders arranged alongside each other with divisional pieces between them, steam-chests formed in such divisional pieces extending throughout the length and parallel with the cylinders, and provided with ports at both ends, which open into the cylinders on each side, or, in the case of the first and last steam-chests, into the cylinders and into steam-chambers respectively, in combination with solid plungers fitting within the steam chests, and adapted to move up and down therein so as to open and close the ports at each within the steam chests, and adapted to move up and down therein so as to open and close the ports at each end, and with means whereby a reciprocatory action may be imparted to the plungers, as specified. (2.) In compound engines, steam-chests formed in divisional pieces between the cylinders, such steam-chests being provided with ports at both ends opening into the cylinders on each side, sliding plungers fitting within such steam-chests and adapted to responsible up and shows the area to ach each thereof to respectively open and close the ports at each end thereof, a shaft mounted in bearings above the cylinders and provided with a lever connected to the eccentric or other link motion

of the engine, and rocking beams mounted upon such shaft, the ends of which are connected by means of connecting, rods with the steam-chest plungers, as specified. (3.) The general arrangement, construction, and combination of parts in my improvements in or relating to compound steam-engines as described and explained, as illustrated in the drawings, and for the several purposes set forth. (Specification, 6s.; drawings, 2s.)

No. 15651.—23rd November, 1901.—Dominik BRUMMER, of Gymnasium Strasse 93, Vienna 19, Austria, Municipal Master Carpenter. Improvements in or relating to portable buildings.

[NOTE.—This is an application under section 106 of the Act, the date given being the official date of the application in Great Britain.]

-(1.) A building capable of being taken to pieces Claims.and altered in form, wherein panels serving for the forma-tion of the outer and partition walls are each composed of two layers of boards joined together and fixed to a frame, and are connected at the corners of the building and at the junction of outer walls with partition-walls, or of partitionjunction of outer walls with partition-walls, or of partition-walls with partition-walls, by standards each having two suitably formed edges, of which one bears on the adjacent longitudinal dovetailed edges of two outer-wall panels or partition-wall panels, or against a similar pair of surfaces formed by an outer-wall panel or partition-wall panel and a dovetailed upright, whilst the other edge of the standard bears against the edge of a wall-panel of the partition or outer wall and the joint is in each case, covered externally by a wall, and the joint is in each case covered externally by a post which fits the longitudinal dovetailed adjacent edges of post which fits the longitudinal dovetailed adjacent edges of the two panels or of the panel and the upright, and is secured by means of bolts and nuts, substantially as described. (2.) In a building according to the preceding claim, wall-panels for the outer and partition walls which are combined with bed-frames that can be inserted into recesses of the panels in such a way that the upper end of each bed-frame can be slid in its recess by means of lateral pins engaging vertical guides. (3.) In a building according to claim 1, a ceiling composed of panels stiffened by frames and resting on the horizontal tie-beams and the posts, each ceiling-panel adjacent to the wall-plates being provided with a longi-tudinal hinged board which bears on the adjacent wall-plate and closes the opening between the ceiling-panel and the tudinal hinged board which bears on the adjacent wall-plate and closes the opening between the ceiling-panel and the wall-plate. (4.) In a building according to claim 1, a roof composed of panels which are placed close together longi-tudinally on the ridge-piece and the wall-plates, are stiffened by frames, and are covered as to their vertical joints by strips, and which are connected to the ridge-piece by means of a common covering-strip and bolts and wing-nuts, and are prevented from sliding on and removal from the ridge-piece and wall-plates by means of pieces of flat iron attached to and wall-plates by means of pieces of flat iron attached to the ridge-piece and the wall-plates and engaging in recesses in the roof-panels, and with abutments secured thereto. (5.) Portable buildings constructed as described with re-ference to and shown in the drawings.

(Specification, 7s.; drawings, 4s.)

No. 15727. — 3rd December, 1902. — KARL SCHNETZER, of 102, Krammel, Aussig on Elbe, Austria, Engineer. Improvement in scap-moulding machines.

-(1.) In a soap- moulding machine, the combina Claims.—(1.) In a soap- moulding machine, the combina-tion of a cooling-vessel and of smooth metal moulds mounted therein, the bottoms of which are formed of movable plungers, substantially as described and for the purpose set forth. (2.) In a soap-moulding machine, the combination of a cold-water container and of smooth metal moulds mounted therein, the bottoms of which are formed of movable plungers, substantially as described and for the purpose set forth. (Specification, 3s. 9d.; drawing, 1s.)

No. 15981.—13th February, 1903.— CHARLES SYDNEY ALINGTON, of Scafield, Ashburton, New Zealand, Farmer. An improved stripper for grass-seed.

Claim.—The combination with a stripping-machine of the class described of a board sloping upwards and forwards from the machine, and adjustably attached thereto, as de-(Specification, 2s. ; drawings, 1s.)

No. 15982.—11th February, 1903.—JAMES SALINGER, of Auckland, New Zealand, Engineer. An automatic device for immediately operating air-brakes on trains.

Claims.—(1.) The device consisting of an upright rod loosely jointed at its upper and lower ends to upper and ower pieces, said lower piece having a T formation and

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loosely jointed to said lower end at the centre of its top with | a cross-piece connected to bottom end of said lower piece, said upper piece having an angular formation and swung at angle at or about its centre to a double angle iron or frame, angle at or about its centre to a double angle iron or frame, with other end of said angular upper piece hinged to a transverse rod with attachment to a cock or cover on air-brake pipe, and said double angle iron or frame having an overlap thereon for said upright rod to work in, for the pur-pose set forth, substantially as described. (2.) In combina-tion, an upright rod loosely jointed at its lower end to the centre of the top of a lower piece having a T formation, said lower piece having a cross-bar connected to its bottom and adapted to project over rail of way, and having either end of its top swung to a transverse beam connected to under-car-riage of railway carriage or engine. said upright rod loosely its top swung to a transverse beam connected to under-car-riage of railway carriage or engine, said upright rod loosely jointed to an angular upper piece swung at the angle at or about its centre to a double angle iron or frame, with other end of said angular upper piece hinged to a transverse rod over lap on said double angle iron or frame for said upright rod to work in, said double angle iron or frame for said upright rod to work in, said double angle iron or frame fastened to carriage or engine, said transverse rod attached to cock or cover on air-brake pipe, and said air-brake pipe attached to said carriage or engine, with port or hole therein and cock or cover therein or thereover, all for the purposes set forth, substantially as described. (Specification, 3s. 9d. : drawings, 1s.)

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

No. 15984.—16th February, 1903.—GEORGE ALDOUS, of Wellington, New Zealand, Tobacconist. An improved clip for holding smoking-pipes and the like.

*Claim.*—A holding-clip for pipes and the like, such clip consisting of a flat piece of springy material, adapted to be secured to a wall or the like, formed with a bowed, down-wardly depending arm or finger whose springy tendency is for its bottom end to impinge against the face of the wall, as manifed specified.

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

No. 15990. —13th February, 1903. — CHARLES WALDREN STANTON, a citizen of the United States of America, and resident of 350, St. Anthony Street, City and County of Mobile, Alabama, United States of America aforesaid, Mer-chant. Improvement in condensing-apparatus.

Claim.—In an apparatus of the character described, a con-denser provided with an outlet, a closed receptacle com-municating at its bottom with said outlet and provided with a liquid seal, a discharge-pipe communicating with said re-ceptacle and connected to its side near the top thereof, a dis-charge-pipe communicating with said receptacle and con-nected to its side near the bottom thereof, a filling-pipe communicating with said receptacle and connected to the top thereof, a discharge-pipe communicating with said receptacle and connected to the top thereof, and a suitable valve for each of said pipes. each of said pipes. (Specification, 2s. 6d.; drawings, 1s.)

No. 15994.—18th February, 1903.—ALFRED JACKAMAN ELLIS, of 65, Moorgate Street, London, E.C., England, Gentleman (assignee of Herman Casler and Harry Norton Marvin, both of Canastota, Madison, State of New York, United States of America, Manufacturers). Improvements in tape embossing and feeding machines.

Extract from Specification.—My invention relates to an improved machine for stamping, embossing, or punching letters or other characters in a strip of metal, paper, or like material to produce labels or name-plates. The machine comprises a means for feeding the strip of metal or other material which is to receive the impressions; a device for bringing successively to a fixed point the types or dies for producing the impressions comparing the same to compare the bringing successively to a fixed point the types or dies for producing the impressions; means for operating the same to emboss, stamp, or perforate the strip; means for regulating the amount of tape fed to the machine from the source of supply; and means for severing the embossed sections of the strips from the main body of the same. In the pro-duction of my machine I have followed the ordinary and well-known principles upon which embossing, check punch-ing, and similar machines have heretofore been designed, but have improved the construction and mode of opera-tion of the mechanisms employed for the production of but have improved the construction and mode of opera-tion of the mechanisms employed for the production of metallic labels or name-plates in order to render the same more practicable and useful by providing a machine which may be readily manipulated by unskilled persons without liability of derangement, injury, or improper operation. My invention consists in a new form of two-part embossing-punch or perforating die-ring, one part of which is capable of rotation on its axis only, while the other is geared to the first so as to partake of its rotational movement, and yet is so supported as to have, when required,

a transversal movement on its own axis against the first a transversal movement on its own axis against the first part for punching or embossing a tape passing into the machine in a direction substantially radial to the die-ring; an independent strip cut off and name-plate finishing die arranged in proximity to the punching or embossing dies; an automatically operated dic-centring device; a positive strip-feed device operated directly from the traversing die-head, and adapted to feed the strip always through a constant distance; an auxiliary strip-feeding mechanism operated from the cut-off die mechanism, adapted to feed the strip into position for starting a new name-plate : employing as a from the cut-off die mechanism, adapted to feed the strip into position for starting a new name-plate; employing as a tape-measuring-out means a clamping-device which clamps on to the tape, and when operated causes or permits only a predetermined length of tape to be fed out; a coin-freed device for operating the tape-clamping device; a spring-driven tape-feed device adapted to measure out predetermined lengths and provided with strip clamps preventing the possilengths and provided with strip-clamps preventing the possi-bility of drawing out further tape.

[NOTE.-The number and length of the claims in this case pre-clude them from being printed, and the foregoing extract from the specification is inserted instead.]

(Specification, £1 2s.; drawings, 4s.)

No. 15996. -- 18th February, 1903. -- FRANCIS JAMES FLETCHER, of 11, Filey Avenue, Upper Clapton, London, Eng-land, Engineer. Improvements in apparatus for aerating or carbonating liquids.

-(1.) In apparatus for aerating or carbonating Claims liquids, the combination with a closed vessel of a cylinder secured inside the said vessel adjacent to the lower part liquids, the combination with a closed vessel of a cylinder secured inside the said vessel adjacent to the lower part thereof, a perforated piston in the cylinder, a hollow piston-rod communicating with the aperture in the piston and extending outside the vessel, the said piston-rod being provided within the vessel with perforations above the cylinder, means for supplying liquid to the cylinder, and an inlet for admitting gas to the vessel, substan-tially as described. (2.) In apparatus for aerating or carbonating liquids, the combination with a closed vessel of a cylinder secured inside the vessel adjacent to the lower part thereof, a perforated piston in the cylinder, a hollow piston-rod communicating with the aperture in the piston and extending outside the vessel, the said piston-rod being provided within the vessel with perforations above the cylinder, an annular perforated tray secured to the piston-rod below the said perforations, means for aerating or carbonating liquids, the combination with a closed vessel of a cylinder secured inside the vessel adjacent to the lower part thereof, a perforated piston in the cylinder, a hollow piston-rod communicating with the aperture in the piston and extend-ing outside the vessel, the said piston-rod being provided with-in the vessel with perforations above the cylinder, a hollow piston-rod communicating with the aperture in the piston and extend-ing outside the vessel, the said piston-rod being provided with-in the vessel annular perforated trays secured to the hollow piston-rod below the said perforated trays secured to the hollow piston-rod below the said perforated trays described. (4.) In appa-ratus for aerating or carbonating liquids, the combination with a closed vessel of a cylinder secured inside the said vessel adjacent to the lower part thereof, a perforated piston in the said cylinder, a hollow piston-rod communicating with the aperture in the piston and extending outside the vessel, the said piston-rod being provided within the vessel with per thereof, a perforated piston in the cylinder, a hollow pistoncarbonating liquids, the combination with a closed vessel of a cylinder secured inside the vessel adjacent to the lower part thereof, a perforated piston in the cylinder, a hollow piston-rod communicating with the aperture in the piston and ex-tending outside the vessel, the said piston-rod being provided within the vessel with perforations above the cylinder, means for supplying liquid to the cylinder, an inlet for admitting gas to the vessel, and a draught-arm for withdrawing the aerated liquid directly mounted on the said vessel, substan-tially as described. (6.) The combination and arrangement of parts forming the improved apparatus for aerating and car-bonating liquids, substantially as described and illustrated. (Snotification for for the derwing 10)

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

No. 15997. — 18th February, 1903. — FRANCIS JAMES FLETCHER, of 11, Filey Avenue, Upper Clapton, London, England, Engineer. Improvements in and connected with apparatus for filling bottles or other vessels with liquid and stoppering them. Claims.—(1.) In an apparatus for filing bottles or other vessels with liquid and stoppering them, the combination with a head of a number of filing and stoppering devices of different construction for engaging and filing and stoppering different types of vessels, whereby a number of types of vessels may be filled with a single apparatus, substantially as described. (2.) In apparatus for filling bottles or other vessels with liquid and stoppering them, the combination with a head, a number of filling and stoppering devices of different construction mounted thereon, for engaging and filling and stoppering different types of vessels, a single bottle-stand for supporting a bottle in connection with one of said filling and stoppering devices, said head and said bottle-stand being the one rotatable in respect to the other to bring any one of said filling and stoppering devices into operative relation with the bottle-stand, substantially as described. (3.) In apparatus for filling bottles or other vessels with liquid and stoppering them, the combination with a rotatable head of a number of filling and stoppering devices of different construction carried thereby and constructed to engage and fill and stopper different types of vessels, a permanently located bottle-stand adapted to co-operate with any one of said filling and stoppering devices, and a locking-device for said head for locking it in position when one of said filling and stoppering devices is in operative relation with said head, substantially as described. (4.) In apparatus for filling bottles or other vessels with liquids and stoppering them, the combination of a disc or head carrying a number of filling and stoppering devices, of a hollow shaft upon which the said disc is mounted, of passages provided in the disc connecting the hollow shaft with each of the filling and stoppering devices, of a column in which the shaft is rotatably mounted, of a support for the bottles or other vessels, of means for the hollow shaft with each of the filling and stoppering de-vices, of a column in which the shaft is rotatably mounted, of a support for the bottles or other vessels, of means for locking the rotatable shaft in position for enabling any one of the filling nozzles to be employed, of a syruping-device, and of a common shaft for operating the bottle-support and the syruping-device, substantially as described. (5.) In apparatus for filling bottles or vessels with liquids and stoppering them, the combination of a disc or head carrying a number of filling and stoppering devices, of a hollow shaft upon which the said disc is mounted, of passages provided in the disc connecting the hollow shaft with each of the filling and stop-pering devices, of a column in which the shaft is rotatably mounted, of a support for the bottles or other vessels, of means for locking the rotatable shaft in position for enabling any one of the filling nozzles to be employed, of a syruping-device, of a common shaft for operating the bottle-support and the syruping-device, and of means for adjusting the stroke of the piston of the syruping-device, substantially as described. (6.) Apparatus for filling bottles or other vessels with liquids and stoppering them, comprising a disc or head carrying a number of filling and stoppering devices, a hollow shaft on which the disc is mounted, a column in which the shaft is rotatably held, an adjustable bottle-holder, a syrup-ing-device and an aerator, a discharge-pipe from the aerator in connection with the hollow shaft, and a common shaft for operating the bottle-support, syruping-device, and aerator, substantially as described and illustrated. (Specification, 7s. 6d.; drawings, 2s.) vices, of a column in which the shaft is rotatably mounted

No. 15998. — 16th February, 1903. — GEORGE WILLIAM BASLEY, of Vulcan Chambers, corner of Queen Street and Vulcan Lane, Auckland, New Zealand, Patent Agent (nomi-nee of John Henry Foster, of 69, Pelton Road, East Green-wich, Kent, England, Boilermaker). Apparatus for econo-mizing fuel and minimising smoke in steam-boiler furnaces and the like and the like.

-(1.) In combination, an injector-nozzle adapted Claims.—(1.) In combination, an injector-nozzle adapted to inject steam and induce a current of air, such injector-nozzle being enclosed within a chamber that is adapted to heat the air which is induced, as specified. (2.) In com-bination, an injector-nozzle adapted to inject steam and induce a current of air, such injector-nozzle being enclosed within a chamber internally provided with baffle-plates, such chamber being adapted to heat the air which is in-duced, as and for the purposes set forth. (3.) In combina-tion, a steam-boiler furnace, the inside of the door opening of which is surrounded on three sides by an arched chamber Claims.~ tion, a steam-boiler furnace, the inside of the door opening of which is surrounded on three sides by an arched chamber provided with apertures for the ingress and egress of air, such chamber being internally provided with baffle-plates adapted to cause the air to take a serpentine course between the point of ingress and the point of egress, as and for the purposes specified. (4.) A steam-boiler furnace, the door-opening of which is surrounded on three sides by an arched chamber provided with apertures for the ingress and egress of air, such chember being internally provided with baffle-plates adapted to cause the air to take a serpentine course between the point of ingress and the point of egress, in com-bination with an injector-nozzle adapted to inject steam and induce a current of air, such injector-nozzle being enclosed within the arched air-chamber, and with a director-tube concentric or thereabouts with the injector-nozzle, and

adapted to project the mixture of steam and induced air upon the bridge at the rear of the furnace, above the layer upon the orage at the rear of the furnace, above the layer of fuel on the grate-bars, as and for the purposes set forth. (5.) The general arrangement, construction, and combina-tion of parts in the apparatus for economizing fuel and mini-mising smoke in steam-boiler furnaces and the like, as described and for the purposes specified. (Specification, 4s.; drawings, 2s.)

No. 15999. --16th February, 1903. -- EDWIN HENRY BER-TRAM LAING, of 321, High Holborn, London, England, Lieutenant, Imperial Yeomanry, and GEORGE WARRIE CLARKE, of Buckingham Palace Hotel, Buckingham Gate, London aforesaid, Gentleman. A combined bandolier and writh bride conjugat waist-belt rifle-carrier.

-A combined bandolier and waist-belt adapted to Claim carry a rife, and consisting of a waist belt to which a front bandolier and a back band are attached in such positions that when the belt is secured around the body the bandolier and when the belt is secured around the body the bandoler and back band can be passed around crosswise of the body and secured together over the shoulder, the belt having a hook adapted to receive a ring strapped to the stock of a rifle and a hip guard, and the back band having a socket adapted to embrace the barrel of a rifle, so as, jointly with the hook, to support the rifle flatwise against the back band belt and hip-guard in a position enabling it to be removed by raising the rifle-stock ring from the belt hook and withdrawing the rifle-harrel from the back-band socket, as set forth. barrel from the back-band socket, as set forth.

(Specification, 4s. 6d.; drawings, 1s.)

No. 16000.-19th February, 1903.-HABOLD ALEXANDER DANNE, Chemist, and RICHARD VALLANCEY DANNE, Engineer, both of Poonarree, Victoria Street, Richmond, Victoria, and John Donaldson, of 454, Collins Street, Melbourne, Victoria aforesaid, Secretary. Weighing-machine.

Claims.—(1.) A weighing-machine comprising, in com-bination, a number of pans or buckets set on framing sup-ported by rotatable axle having bearings in a fixed support, a pressure-plate arranged to bear upon a projection of an empty pan whilst an oppositely arranged pan is being filled, and means for supplying material to be weighed to bucket, substantially as and for the purposes described. (2.) A weighing-machine comprising, in combination, a number of pans or buckets pivoted between discs or frames supported by rotatable axle, a pressure-plate arranged to bear upon a projection of an empty pan whilst an oppositely arranged pan is being filled, and means for supplying material to be weighed to bucket, substantially as and for the purposes described. (3.) In a weighing-machine, in combination, a number of pans or buckets supported from an axle and arranged to rotate in bearings on a fixed support, a large Claims.-(1.) A weighing-machine comprising, in weighed buckets, substantially as and the start of the particular described. (3.) In a weighing-machine, in combination, a number of pans or buckets supported from an axle and arranged to rotate in bearings on a fixed support, a large and small feed-hopper arranged over a pan, and having fixible extension and means for supplying to and shutting off feed from a pan, substantially as and for the purposes described. (4.) In a weighing-machine, in combination, a number of pans or buckets supported from an axle and arranged to rotate, a metallic strip supported by the axle, a pin or stop operated by mechanism from an electrical con-nection with the strip to stop or release the pans, substan-tially as and for the purposes described. (5.) A weighing-machine comprising, in combination, a number of pans or buckets set on framing supported by rotatable axle, a pres-sure-plate arranged to bear upon a projection of an empty pan whilst an oppositely arranged pan is being filled, a metallic strip supported from the axle, a feed-hopper over the pan to be filled, an electrical circuit with brushes to make and break contact with the metallic strip, and arranged to operate mechanism to control the shutter of feed-hopper, substantially as and for the purposes described. (6.) In a weighing-machine of the kind described, a brush in electrical circuit operating feed mechanism, and arranged so that its pressure will be relieved from the rotary frame at the final drip of material into the pan, substantially as and for the purposes described. (7.) A weighing-machine comprising a number of pans pivoted between discs set upon a rotating centre, a pressure plate having levers with adjustable weights and arranged to bear upon a projection of an empty bucket while the oppositely arranged one is in position to be filled, a metallic strip supported from the axle and having gaps and strips planted on and being in an electrical circuit in which are contact brushes arranged to make and to break the circuit, a solenoid in the circuit of each the circuit, a solenoid in the circuit of each contact strip having a core which will rise or fall with the make and naving a core which will rise or fall with the make and break of contact to operate intermediate mechanism to con-trol the outlets of main and small feed-hoppers, substan-tially as and for the purposes described. (8.) The combina-tion and arrangement of the whole of the parts for the purposes described, and substantially as illustrated on the drawings.

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

No. 16006.—20th February, 1903.—JAMES DICK, of "The Grange," Ngaturi, Pahiatua, Wellington, New Zealand, Farmer. Improved apparatus for use in drafting sheep.

Claims.- (1.) In apparatus for the purpose described, operating the gates or gate at the end of the race by means of a system of levers and connecting wires or rods so that the operator is at the rear of the sheep passing through the race, substantially as and for the purposes set forth. (2.) In apparatus for the purpose described, in combination, vertical levers at the rear of the race, horizontal levers near the racegates, wires or rods connecting the vertical and horizontal levers, and rods connecting the horizontal levers and the gates, substantially as and for the purposes set forth. (3.) In apparatus for the purpose described, in combination, vertical arms at the rear of the race fixed to horizontal rods parallel with the race, bearings in which the horizontal rods is mounted, vertical arms at the other end of the horizontal rods, rods connecting the latter vertical arms to the gates of the combination and arrangement of parts comprising the improved apparatus for use in drafting sheep, substantially as and for the purposes set forth, and illustrated in the drawing.

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

No. 16010.-21st February, 1903.-FELIX JEROME MCSHANE and JAMES HENRY MCSHANE, both of 303, South Thirteenth Street, Omaha, Douglas, Nebraska, United States of America, Railroad Contractors (assignees of Robert Ely Waugh, of 3438, Marion Street, and Eugene Waugh, of 3339, Curtis Street, both of Denver, Colorado, United States of America aforesaid). Improvements in dry-ore concentrators.

Claims.--(1.) In a dry-ore concentrator, the combination with a suitable frame of a vibratory apron-frame constructed to form an air-chamber, an endless travelling apron through which the air from the chamber passes, the apron closing which the air from the chamber passes, the aprofit closing said chamber at the top, an auxiliary air-chamber arranged in suitable proximity to the main air-chamber, means for introducing air under pressure to the auxiliary chamber, and means for vibrating the apron-frame. (2.) In a dry-ore con-centrator, the combination with a stationary frame of an apron-frame mounted to vibrate thereon, means for vibrating the apron-frame, an encless travelling apron mounted on the frame which is constructed to form an air-chamber beneath the apron which closes the said chamber at the top, an auxiliary air-chamber mounted on the apron-frame in proximity to the main air-chamber, delivery-pipes com-municating with the auxiliary chamber and projecting into the main chamber below the apron, the said pipes having openings for the escape of air to the main chamber, and means for introducing air under pressure to the auxiliary air-chamber. (3.) The combination of an endless travelling apron constructed to allow an air-blast to pass therethrough, apron constructed to allow an air-blast to pass therethrough, a vibratory apron-frame having an air-chamber closed at the top by the apron, means for vibrating the apron-frame, an auxiliary air-chamber mounted on the vibratory frame, means for delivering air from the auxiliary chamber to the main chamber below the apron, and means for introducing air under pressure to the auxiliary air-chamber. (4.) The combination of an apron-frame mounted to vibrate and pro-vided with an air-chamber means for vibrating the apron vided with an air-chamber, means for vibrating the apro-frame, an endless travelling apron mounted on the frame and closing the air-chamber at the top, the apron being com-posed of suitable material to allow the air to pass thereposed of suitable material to allow the air to pass there-through, an auxiliary air-chamber, means for introducing air under pressure to said auxiliary chamber, and pipes lead-ing from the auxiliary chamber and provided with openings for the escape of air below the apron, the said pipes being rotatable whereby the angle of the delivered air-jets may be varied at will. (5.) The combination with a stationary frame of a vibratory apron-frame mounted thereon and provided with an air-chamber, means for vibrating the apron-frame, an endless travelling apron mounted on said frame and closing the air-chamber at the top, an auxiliary airand closing the arconamber at the top, an auxiliary ar-chamber mounted on the apron-frame, means for introducing air under pressure to said auxiliary chamber, outlets from the auxiliary chamber to the main chamber, and means for controlling and regulating the exit of the air from the auxiliary chamber to the main chamber. (6.) The com-bination with a stationary frame of an apron-frame mounted to vibrate thereon and provided with an air-chamber, means for wibring the apron frame on angles transling aprone to vibrate thereon and provided with an air-chamber, means for vibrating the apron-frame, an endless travelling apron mounted on the vibratory frame, the apron being arranged to close the air-chamber at the top and constructed to allow air to pass therethrough, an auxiliary air-chamber provided with outlets to the main chamber, and slides located in the auxiliary chamber and adapted to be actuated from the out-side of the chamber for regulating the escape of air from the auxiliary to the main chamber. (7.) The combination with

a suitable stationary frame of a vibratory frame, means for vibrating the last-named frame, longitudinal bars, means located at the extremities of the bars for adjusting the latter located at the extremities of the bars for adjusting the latter vertically, shoes attached to the vibratory frame in sliding engagement with the bars, and buffer springs mounted on the bars and engaging one pair of shoes. (8.) The combina-tion with a suitable stationary frame, having slotted stan-dards mounted thereon, of longitudinal bars, cross bars to which the longitudinal bars are secured, vertically more ble hores in which the group here are non-model. to which the longitudinal bars are secured, vertically movable boxes in which the cross bars are mounted, the extremities of the cross bars protruding into the slots of the standards, screws connected with the boxes of the cross bars, nuts applied to the screws and engaging the top of the standards, a vibratory frame slidably mounted on the longitudinal bars, and means for vibrating said last-named frame. (9.) In a dry-ore concentrator, the combination with a stationary frame of an aron frame combination with a stationary frame of an apron-frame mounted to vibrate thereon, means for vibrating the apron-frame, and composed of two side pieces, cross pieces con-necting the side pieces, a plate attached to the cross pieces and forming a bottom for an air-chamber, tracks attached to the cide piece bury the better and forming the side piece. and forming a bottom for an air-chamber, tracks attached to the side pieces above the bottom and forming a support for the apron, end drums journalled in the side pieces beyond the air-chamber, yielding flaps attached to the bottom plate and overlapping the drums for closing the air-chamber at the ends, and an endless concentrating-apron passing around the end drums and closing the air-chamber at the top. (10.) The combination with a suitable stationary frame of an apron-frame mounted to vibrate thereon, means for vibrating the last-named frame, a shaft journalled in the stationary frame, pitmen operated from the shaft and con-nected with the apron-frame, drums journalled in the apronnected with the apron-frame, drums journalled in the apron-frame at the extremities of the air-chamber and around which the apron passes, a blower connected with the air-chamber to deliver air thereto, an operating shaft, a con-nection between said shaft and the blower for operating the latter at a high rate of speed, and a speed-reducing connec-tion between the operating-shaft and one of the end drums for operating the apron at a comparatively lower rate of speed. (11.) The combination with a stationary frame, an speed. (11.) apron-frame mounted thereon, means for vibrating the la named frame, end drums for operating the apron, an endless travelling apron passing around the drums, an operating-shaft and speed-regulating means interposed between the shaft and one of the end drums, said means including two shaft and one of the end druins, said means including two conical pulleys oppositely arranged, a belt connecting said pulleys, and a belt-shifting device comprising a screw shaft journalled in the stationary frame, and a travelling nut mounted thereon and provided with a fork straddling the belt. (12.) The combination of a stationary frame, an apronframe mounted to vibrate thereon and provided with an air-chamber, means for vibrating the apron-frame, end drums journalled in the frame, yielding flap, attached to the extremities of the air-chamber bottom and engaging the drums to close the air-chamber at the ends, and an endless travelling bet or apron engaging the drums and closing the air-chamber at the top, said apron being composed of material adapted to allow air under pressure to pass therethrough from the air-chamber below. (13.) In a dry-ore concen-trator, the combination with an air-chamber of an endless apron arranged to close said chamber at the top, said apron comprising a body part of fibrous or other material adapted comprising a body part of fibrous or other material adapted to allow air to pass therethrough under pressure, rubber strips attached to the edges of the apron, each of said strips having two flanges extending approximately at right angles to each other, one of which flanges projects above the concentrating - surface of the apron and maintains the ore thereon, the other flange being secured to the edge of the apron, rods or reinforcing pieces extending transversely across the apron on its inner surface, their extremities being attached to the outer edges of the apron and strans comactached to the outer edges of the apron, and straps com-posed of leather or other suitable material attached to the edges of the apron on its inner surface. (14.) In a dry-ore concentrator, the combination with a stationary frame, an concentrator, the combination with a stationary frame, an apron-frame mounted to vibrate thereon, means for vibrat-ing the apron-frame, an endless travelling apron mounted on the last - named frame, and an oscillatory beater-de-vice engaging the concentrating - surface of the apron on the last - named frame, and an oscillatory beater-de-vice engaging the concentrating - surface of the apron during its rearward travel to remove the concentrates, said device being mounted on the vibratory frame and a stationary part with which a part of the said device is connected for operating purposes. (15.) In a dry-ore concentrator, the combination with a stationary frame of an apron-frame mounted to vibrate thereon, means for vibrating the apropriate travelling apropri vibrating the apron-frame, an endless travelling apron mounted on said last-named frame, a beater arranged to engage the concentrating surface of the apron during its rearward travel for the purpose of removing its concentratec, said device including a transverse bar pivotally connected with the vibratory frame, a crank-arm attached to said bar, and a link attached to the stationary frame and connected with the arm of the beater - bar for operating purposes.

(16.) In a dry-ore concentrator, the combination with a stationary frame, an apron-frame mounted to vibrate thereon, means for vibrating the apron-frame, an endless travelling apron mounted on the last-named frame, and an oscillatory beater-device engaging the concentrating surface of the apron during its rearward travel to remove the concentrates, said device being mounted on the vibratory frame, and suitable means for operating the beater-device. (Specification, 12s. 6d.; drawings, 6s.)

No. 16011.—21st February, 1903.—JOSEPH FLETCHER, of 73, Narford Road, Clapton, London, England, Engineer. Improvements in apparatus for drawing off or dispensing aerated and other liquids.

Claims.—(1.) In apparatus for drawing off or dispensing liquids, the arrangement of a chamber in communication with the liquid reservoir, the said chamber having an outlet-orifice, a valve for closing the discharge-orifice, and a valve for closing communication between the reservoir and the chamber, and of means, such as a spindle, for controlling the said valves in their proper sequence by a single opera-tion, substantially as described. (2.) Apparatus for drawing off or dispensing aerated liquids, comprising a chamber in communication with the liquid reservoir, and having a dis-charge-orifice, a valve for closing the said orifice, a valve for closing the passage between the liquid reservoir and the closing the passage between the liquid reservoir and the chamber, a hollow spindle extending into the reservoir and arranged to move axially when turned, and a snifting-tube which carries the valve closing the passage between the reservoir and the chamber, and also a snifting-valve, all these reservoir and the chamber, and also a snifting-valve, all these valves being adapted to be closed and opened by the axial movement of the hollow spindle, substantially as described. (3.) In apparatus of the kind described in the preceding claiming clause, the employment of an additional air-inlet valve in the hollow spindle, substantially as and for the purpose described and as illustrated. (4.) Apparatus for dispensing aerated and other liquids, consisting of the parts constructed, arranged, and operating, substantially as de-scribed, and illustrated in the drawing. (Specification 5s. drawings 1s.)

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

No. 16013.—19th February, 1903.—JAMES HENRY GRATTAN, of Avondale, Auckland, New Zealand, Machinist. Improved attachable gear for more completely controlling horses and other animals.

-(1.) A strap fastened to a tongueless buckle and Claims.made to pass therefrom through another toguetess buckle over a roller on a bar therein, and carried therefrom in the direction of the buckle to which it is fastened in the first place, and straps with tongued buckles thereon or clip-hooks connected to the said tongueless buckles, all in combination, for the purpose set forth, substantially as described. (2.) A strap fastened to a tongueless buckle and made to pass therefrom through another tongueless buckle and made to pass chele-from through another tongueless buckle over a roller on a bar therein, and from said buckle to and through the buckle to which it is fastened in the first place over a roller on a bar therein, and carried therefrom in the direction of the bar therein, and carried therefrom in the direction of the buckle through which it is first passed, and straps with tongued buckles thereon or clip-hooks connected to said tongueless buckles, all in combination, for the purpose set forth, substantially as described. (3.) A strap fastened to a tongueless buckle and made to pass therefrom through another buckle over a roller on a bar therein, and from and there where the buckle over a volter on a bars therein. another buckle over a roller on a bar therein, and from and through buckle to buckle over rollers on bars therein a second and third time, and straps with tongued buckles thereon or clip-hooks connected to said tongueless buckles, all in combination, for the purpose set forth, substantially as described. (4.) The arrangement of the strap to the tongueless buckles as specified, and the fitting of the straps with tongued buckles thereon or clip-hooks connected to said tongueless buckles to either a saddle or vehicle, for the purpose set forth substantially as described purpose set forth, substantially as described.

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

No. 16017.—23rd February, 1903. — GEORGE WESTING-HOUSE, of Westinghouse Building, Pittsburg, Pennsylvania, United States of America, Manufacturer. Improvements in steam-turbines.

-(1.) A fluid-pressure turbine having a plurality of sets of fixed guide-vanes and co-operating moving blades so arranged that the first set of moving blades is actuated by so arranged that the first set of moving blades is actuated by the initial velocity-energy of the propelling-fluid and the subsequent sets of blades by the velocity-energy produced by successive expansions of the propelling-fluid, substantially as described. (2.) A steam-turbine provided with a ring of moving blades and a steam inlet chamber having a number of nozzles for expanding the steam to increase its impact velocity arranged so that their orifices practically touch each

other, forming a continuous opening through which the steam is projected against the working-faces of substantially steam is projected against the working-faces of substantially all the blades in the ring at the same time, substantially as described. (3.) A steam-turbine in which the steam after leaving one set of vanes and blades between which it has ex-panded is reheated by a reheating-coil, and passes thence to another set of vanes and blades. (4.) In a steam-turbine, a ring comprising a plurality of independently removable seg-ments provided with integral propelling-blades. (5.) For a steam turbine, the improved menuer of constructing steam. steam-turbine, the improved manner of constructing steam-expansion nozzles described with reference to Figs. 7 and 8, or to Figs. 9 and 10, or to Figs. 11 to 14 of the drawings. (6.) Turbines constructed substantially as described with reference to Figs. 1 to 16 of the drawings, either with or without the means for reheating the steam in its progress through the meaning. through the machine. (Specification, 9s. ; drawings, 5s.)

No. 16019.-23rd February, 1903.-JOHN HENRY FAIR-HURST, of Worser Bay, Wellington, New Zealand, Builder. A scaffolding-bracket.

Claims.—(1.) A bracket for scaffolding consisting of a V-shaped horizontal frame the two ends of which are formed with eye-pieces, in combination with pegs secured to the building-wall, and upon which the eye-pieces of the frame are adapted to be passed so as to hold the frame, as specified. (2.) <sup>f</sup>A V-shaped horizontal frame the two ends of which are formed with eye-pieces adapted to pass over pegs secured to a wall, a diagonal stay-piece the top end of which is secured to the apex of the frame, while the bottom end is adapted to rest against the wall, and tie-pieces joining the stay-piece to the frame, as and for the purposes set forth.

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

No. 16027.-25th February, 1903.-JOSHUA RUTLAND, of Canvastown, Pelorus Valley, Marlborough, New Zealand, Crown Lands Ranger, and WILLIAM HADFIELD SMITH, J.P., of Havelock, Marlborough aforesaid, Storekeeper. Improvements in or relating to boat rowlocks.

Claim.--In means for attaching rowlocks to boats, a stem upon the rowlock formed with a radial projection or stem upon the rowlock formed with a radial projection or stud, in combination with a plate adapted to be secured to the boat's gunwale, and provided with a hole to receive the stem of the rowlock, and with a slot upon one side of the hole adapted to allow of the stem projection or stud passing through it, as specified. (Specification, 2s. 3d.; drawings, 1s.)

## F. WALDEGRAVE. Registrar.

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

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

office order or postal note for the cost of copying. The date of acceptance of each application is given after the number.

# Provisional Specifications.

# Patent Office,

Wellington, 4th March, 1903. A PPLICATIONS for Letters Patent, with provisional specifications, have been accepted as under :---No. 15882.--15th January, 1903.--BENJAMIN CRAWFORD, of Auckland, New Zealand, Plumber. An improved device to A No. Auc

of Auckland, New Zealand, Flumber. An improved device to render gas or oil engines noiseless, applicable also as a smoke or spark arrester. No. 15957.—7th February, 1903.—GEORGE FRASER, of Auckland, New Zealand, Engineer, and LAMBTON LE BRETON MOUNT, of Auckland aforesaid, Glass-maker. Improvements in heat-economizing and smoke-abatement arrangement arrangement.

No. 15985.—13th February, 1903.—BENJAMIN PARKER, of Coimadai, Victoria, Farmer. Improved method of and means for destroying rabbits, wild dogs, foxes, rats, and other like vermin.

No. 15986.--17th February, 1903. — HERBERT FRANK MANDER and FREDERICK LEWIS, both of Newman, New Zealand, Blacksmiths. An improved attachment to bicycle

Zealand, Biacksmiths. An improved account of the second state of t ends of machinery belting together.

No. 15988. — 7th February, 1903. — Ewen Mackenzie CLauchlan, of Springhills, Southland, New Zealand, No. 15988. — 7th February, 1903. — LIVEN MACKENZIE McLAUCHLAN, of Springhills, Southland, New Zealand, Farmer. Improvements in cycling-machines. No. 15989.—14th February, 1903.—JOHN COVENTRY, of Dunedin, New Zealand, Jeweller. Improved sliding ferrule

for umbrellas.

No. 15991. — 13th February, 1903. — ROBERT WILLIAM ENGLAND, Jun., of Christchurch, New Zealand, Architect. Manufacture of blocks of artificial stone.

No. 15992.-13th February, 1903.-SAMUEL EDWARD DEN-

No. 15992.—13th February, 1903.—SAMUEL EDWARD DEN-NISTON, of Fox Street, Avenal, Invercargill, New Zealand, Engineer. Improved apparatus for dipping sheep. No. 15993.—18th February, 1903.—ARTISTIC WOOD-WORK PROPRIETARY, LIMITED, of 375, Collins Street, Mel-bourne, Victoria (assignees of Henry Smith, of 176, Edge-vale Road, Kew, Victoria aforesaid, Art Decorator). Im-proved process of and combination of materials to be used in decorating woodwork. No. 16001.—17th February, 1903.—CHARLES CORP. of

No. 16001.—17th February, 1903.—CHARLES CORR, of Cape Foulwind, Westport, New Zealand, Weigh Clerk. Im-

Conversion of the second second

No. 16003. – 17th February, 1903. – SAMUEL GEORGE PLUCKNETT, of Dickson Street, Newtown, Sydney, New South Wales, Company-manager. Improved contrivances to reflect views of their vehicles to front facing drivers of tramcars and the like.

tramcars and the like. No. 16004.—20th February, 1903.—HENRY ASHWORTH, of Wadestown, Wellington, New Zealand, Engineer. Improve-ments in utilising the waste light from lamps in shops, streets, &c., for advertising and other purposes. No. 16007.—20th February, 1903.—WILLIAM STAPLES, of Wellington, New Zealand, Boot-manufacturer. An improved boot

boot.

No. 16008. - 18th February, 1903. -- ROBERT WILLIAM

No. 16008.—18th February, 1903.—ROBERT WILLIAM ENGLAND, Jun., of Christchurch, New Zealand, Architect. Improved artificial-stone block. No. 16009.—18th February, 1903.—JOHN FINDLAY, of Clutha, New Zealand, Farmer. Composition for destroying noxious plants, weeds, and the like. No. 16014.—19th February, 1903.—WILLIAM LYONS, of Devonport, Auckland, New Zealand, Commission Agent (nominee of John George Deeble, of Sydney, New South Wales, Blacksmith). A ballot-box for indicating the position to be taken in line by racehorses and their riders in starting to be taken in line by racehorses and their riders in starting for a race.

for a race. No. 16015.—19th February, 1903.—DAVID CLARK, of Drummond, Southland, New Zealand, Earmer. Improved device for thinning plants sown in ridges. No. 16016.—20th February, 1903.—WILLIAM THOMAS, of Geraldine, New Zealand, Journalist. A new or improved combined portable apparatus for changing photographic plates or films, and for developing the same. No. 16020.—24th February, 1903.—WILLIAM ISAIAH ASTON, of Ashburton, New Zealand, Engine-driver. An improved feed-water heater for engines.

feed-water heater for engines. No. 16022.—25th February, 1903.—ALEXANDER GILLIES, No. 16022.—25th February, 1903.—ALEXANDER GILLIES, of Terang, Victoria, Dairyman. An improvement in pneu-matic milking-apparatus.

No. 16023.—25th February, 1903.—THOMAS WILKINS, of Peel Street, Lawrence, New Zealand, Carpenter. An im-proved knife-cleaner.

proved knite-cleaner. No. 16024. — 25th February, 1903. — DUNCAN WILLIAM MACDONALD, of Havelock North, Hawke's Bay, New Zea-land, Farmer. Improvements in drawing-compasses. No. 16025. — 25th February, 1903. — EWEN MACKENZIE MCLAUCHLAN, of Springhills, Southland, New Zealand, Farmer. Improved auxiliary driving-mechanism for cycling-machines. machines

No. 16026.—25th February, 1903.—ROBERT JAMES MOORE, of Ruahine, Rangitikei, New Zealand, Farm hand. An improved milk-aerator.

F. WALDEGRAVE, Registrar.

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

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

# Letters Patent sealed.

IST of Letters Patent sealed from the 18th February IST of Letters Fatent scaled non to to the 4th March, 1903, inclusive :-

No. 14077 .-- G. T. Shilton, device for fastening up mailmatter.

No. 14169.-J. S. Harrison, embrocation.

- No. 14273 .- A. H. Ross, implement for docking, castrat-No. 14273.-A. H. Ross, implement for docking, castrat-ing, and ear-marking lambs. No. 14306.-J. B. Jackson, earth-scoop. No. 14350.-J. Watson, metallic glazing-bar. No. 14357.-W. A. Tuck, jun., wire-strainer. No. 14411.-G. Sweet, manufacture of hollow-ware from
- No. 14111.--O. Bucker, inimitate of a biolow water from clay.
  No. 14565.-T. Goucher, disappearing target.
  No. 15142.-H. August, lid for close'-seat.
  No. 15152.-The American Amalgamating Company, amalgamation of metals by the use of mercury (P. A. Knapp).
- No. 15157.-A. Dunbar, feed-water heater and distributer (J. Macartney).
  No. 15406.—C. A. Bergersen, wire-strainer.
  No. 15437.—W. J. Evans and J. D. Campbell, dredge-
- bucket.
- No. 15501.—A. A. Humphrey, compressing air. No. 15601.—Hon. C. A. Parsons, condenser. No. 15603.—American Tobacco Company, cigarette-machine (J. Wojciechowski).
- No. 15610.—J. L. McMillan, rotary engine. No. 15652.—A. Gillies, milking-apparatus. No. 15654.—C. P. de Lajard, utilisation of power derived from waves of the sea. No. 15678.—J. Channon, seal lock for mail-bag (J. J.
- Russell).

No. 15682.—H. Burgon, sheep-shears. No. 15683.—Bickford and Huffman Company, furrowopener for seeding-machine (J. S. Heath and E. Baseman), No. 15687.-E. S. Baldwin and H. H. Rayward, extrac-tion of metal sulphides from their ores (G. D. Delprat).

No. 15688.—H. D. Perky, biscuit-making machine. No. 15689.—G. Marconi and Marconi's Wireless Tele-graph Company, Limited, receiver for wireless telegraphy (G. Marconi).

No. 15690.-H. Severin, manufacture of hollow glass articles.

articles.
No. 15691.—C. A. Hege, cutting railroad cross-ties.
No. 15692.—J. Bates and W. G. Trudgeon, portable washing-copper (J. Bates).
No. 15706.—W. H. Gaze, illuminating-gas.
No. 15707.—W. Y. Hunter, tents and their valise accessories

sories.

No. 15718. - E. Waters, jun., liquid-hydrocarbon burner (A. Blanchard).

# F. WALDEGRAVE. Registrar.

Letters Patent on which Fees have been paid.

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

### SECOND-TERM FEES.

 ${
m N}^{0.1140}_{1903.}$ 11407 .- A. Lavery, wine-strainer. 25th February.

No. 11415.—The New Steam Stamp-mill Syndicate, steam amp-mill, &c. (F. A. Parnell and C. S. Madan.) 20th stamp-mill, &c. February, 1903.

No. 11454.-The Greenwich Inlaid Linoleum (Frederick Walton's New Patents) Company, Limited, mosaic floor-cloth. (F. Walton.) 20th February, 1903.

No. 11529.—Deering Harvester Company, self-binding har-rester. (J. F. Steward and C. A. A. Rand.) 23rd February, 1903.

No. 11565.-W. I. Davis, dredge. 28th February, 1903.

No. 11628.—The British Uralite Company, Limited, re-fractory building material. (A. Imschanetzky.) 18th Feb-ruary, 1903.

No. 11829.--The British Westinghouse Electric and Manufacturing Company, Limited, electrical measuring-instru-ment. (J. P. Campbell, H. P. Davis, and F. Conrad.) 18th 18thFebruary, 1903.

No. 11832.-The British Westinghouse Electric and Manufacturing Company, Limited, dynamo electric machine. (W. E. Hughes-B. G. Lamme.) 18th February, 1903.

# THIRD-TERM FEES.

No. 8321.-J. A. Packer, artificial limb. 28th February, 1903.

No. 8384.—The Maypole Company (1899), Limited, soap. (G. Stecken.) 27th February, 1903. No. 8393.—The Baron Cigarette-machine Company,

Limited, and Ogden's, Limited, manufacturing cigarette. (B. Baron.) 23rd February, 1903.

F. WALDEGRAVE, Registrar.

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Request to amend Specification.

# Patent Office.

Wellington, 4th March, 1903. Request for leave to amend the undermentioned application for Letters Patent has been restricted. Requests for leave to amend the undermentioned appli-cation 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 amendments. Such notice must set forth the particular grounds of objec-tion, and be in duplicate. A fee of 10s. is payable thereon. The nature of the proposed amendments is as follows :--(1.) To alter the word "procession" to "precession," line 22, page 2, of the specification, and line 3 of claim 1. (2.) After "On W," to add the words "is a circular adjustable ring on which," line 23, page 2. (3.) After the word "adjusted," line 19, page 3, to add the words "to any angle with the plane of the celliptic." The applicant states : My reasons for making this amend-ment are as follow : "That the mistakes which occurred in my original application and specification were due to clerical errors."

Registrar.

Request for Correction of Clerical Error.

N O. 15713.-J. Robb, cutting, weighing, and parcelling butter. (Advertised in Supplement to New Zealand Gasette, No. 102, of the 11th December, 1902.) To alter the word "worm" to "bevel," line 21, page 3, of the specification.

F. WALDEGRAVE,

Registrar.

Applications for Letters Patent abandoned.

IST of applications for Letters Patent (with which provisional specifications only have been filed) abandoned from the 19th February to the 4th March, 1903, inclusive :--

 No. 14770.—R. P. Gibbons, high-pressure gauge-glass.
 No. 14777.—W. E. Searle, saddlery-keeper.
 No. 14781.—C. W. Langstone and J. C. McKerrow, preservative composition.

No. 14782.-W. E. Mason and A. J. Mason, non-refillable bottle.

No. 14783.-P. R. Williamson and D. Sinclair, upright for

table-tennis

-C. H. Osmond, attaching articles to a line. No. 14785.-

No. 14785.-C. H. Osmond, attaching articles to a fine. No. 14793.-H. H. Rayward, ping-pong racquet. No. 14794.-C. C. Forno, rabbit-trap. No. 14795.-K. S. Ramsay, ping-pong-apparatus stand. No. 14796.-A. McLeod, marking-appliance. No. 14797.-S. J. Holland, holding carriage-lamp. No. 14799.-C. R. Wilson and J. F. Best, bicycle-driving mechanism. No. 14800. –W. S. Hutcheson, snatch-block.

No. 14800. – W. S. Huttheson, shatch-block. No. 14806. – J. C. Corbett, decorating picture, &c., frame. No. 14812.– J. T. Moate, advertising, &c. No. 14814.– H. R. Cassel, extraction of precious metals

from ores.

No. 14815.—E. T. Towgood, measuring out milk, &c. No. 14818.—G. H. Bigelow, hair-pin. No. 14823.—F. W. Paterson, road-sweeper. No. 14824.—J. Macalister, grain and manure drill. No. 14828.—W. H. Fahey and W. Wardrop, hair and hat

pin, &c. No. 14829.—J. Pomeroy, sheep-shears. No. 14830.—J. Smaill, testing liquid in refrigerating-apparatus.

No. 14834.-R. H. Iggo, garment-suspenders.

No. 14843.-J. J. Macky, button-hole. No. 14844.-G. H. Bigelow, button-hole.

No. 14847.—F. Pegler, iron-heater, &c. No. 14850.—J. R. Hayne, pneumatic hub for vehicle. No. 14853.—S. Perrin, gas-carburetter.

\* Omitted from the last Gazette.

F. WALDEGRAVE, Registrar. Applications for Letters Patent lapsed.

IST of applications for Letters Patent (with which com-plete specifications have been lodged) lapsed from the 19th February to the 4th March, 1903, inclusive :—

No. 13920.-J. Corkill and M. Morgan, acetylene-gas generator.

No. 13930.—G. Fannin, shirt, &c. No. 13936.—J. W. Jones, table rackets. No. 13938.—T. Rawlinson, fuel-economizer.

No. 13953.—R. P. Fincham, washing-board and rubber. No. 13957.—A. H. Light, sewing-machine. No. 13966.—T. A. Pruden, insect-destroying composition. No. 13969.—L. Williamson, chicken-brooder. No. 13976.—F. W. Payne, differential break-gear.

F. WALDEGRAVE,

Registrar.

### Letters Patent void.

IST of Letters Patent void through non-payment of renewal fees from the 19th February to the 4th March, 1903, inclusive :

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

- No. 11177.—A. E. Appleton, nail.
  No. 11178.—M. Weber, stamper-battery.
  No. 11179.—J. J. Shuttleworth, stopper for bottle, &c.
  No. 11183.—The Globe Trading Company, Limited, treating animal-fats (C. H. Izard—J. N. Harris).
  No. 11184.—S. S. Bastard, treating New Zealand flax.
  No. 11185.—W. H. Hartley and W. A. Köneman, ore-
- No. 11185.-W. H. Hartley and W. A. Köneman, ore-roasting furnace.
  No. 11186.-E. C. Millard, tea-kettle.
  No. 11187.-Union Carbide Company, electric furnace (C. S. Bradley).
  No. 11188.-J. C. Montgomerie, filter-press.
  No. 11189.-H. M. Hamrick and W. S. Miller, burner.
  No. 11190.-H. M. Hamrick, burner.
  No. 11191.-H. M. Hamrick, burner.
  No. 11192.-T. Bennett and H. Bennett, removing cover of tire &co

- t tire, &c. No. 11195.—G. W. de Tunzelmann, carbon for electric No. 11195.—G. W. de Tunzennami, carbon for electric purposes. No. 11196.—W. B. Walters, concentrating milk. No. 11197.—E. Becker, sheep-shearing machine. No. 11198.—T. H. Dodd and M. B. Dodd, sealing jars,

&c.

Kc.
No. 11203. —T. Clements, potato-moulder, &c.
No. 11204.—A. J. Park, gold-saving apparatus.
No. 11205.—G. H. Cain, attachment to corset.
No. 11207.—Burgon and Ball, Limited, sharpening cutter of shearing-machine (A. Melchior).
No. 11208.—H. J. Marks, egg-holder.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

No. 8077.-The New Zealand Loan and Mercantile Agenc Company, Limited, force feed for seeding-implement (A.

Storrie). No. 8090.—The Oppermann-Fischer Patents Proprietary, Limited, amalgamating gold, &c. (E. L. Oppermann, E. Fischer, and C. T. J. Oppermann). No. 8103.—E. W. Cornell and F. H. Knapp, can labelling

machine.

F. WALDEGRAVE, Registrar.

# Design registered.

DESIGN has been registered in the following name on

A the date mentioned:--No. 174.--Aaron Turner Danks, of Messrs. John Danks and Son Proprietary, Limited, 391, Bourke Street, Mel-bourne, Australia, Engineer. Class 1. 23rd February, 1903.

F. WALDEGRAVE, Registrar.

errors.

F. WALDEGRAVE,

Applications for Registration of Trade Marks.

# Patent Office,

Wellington, 4th March, 1903. 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: 3289. Date: 30th January, 1901.

TRADE MARK.



The essential particulars of the above trade mark are: (1) That it consists of, or contains, a distinctive brand; (2) the words or name "La Meridiana" having no reference to the character or quality of the goods, and not being a geographical name; (3) the letters or initials or abbreviated name of the firm, "P.M.Y.CA.," printed within a space formed of twigs or foliage arranged curvilinearly; and (4) the words or name "Pedro Murias" printed below twigs or foliage arranged curvilinearly : and any right to the exclusive use of the added matter is disclaimed.

# NAME.

HAVANA COMMERCIAL COMMENCE, of 102, Galiano Street, Havana, in the Isle of Cuba, and of 135, Broadway, New York, in the United States of America, Cigar-manufacturers, successors in business to and owners of the factory of the persons lately trading under the firm-name or style of "Pedro Murias," in Havana aforesaid.

No. of class: 45.

Description of goods: Cigars and cognate substances and articles.

By consent.

No. of application: 4054. Date: 9th January, 1903.

TRADE MARK.



NAME.

GLYN AND Co., 40, Old Bond Street, London, England, Hat-manufacturers.

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

No. of application : 4034. Date: 19th December, 1902.

TRADE MARK.



The essential particular of this trade mark is the word "Zealandia," with the distinctive device, as already registered in Class 38, trade mark No. 259.

The said trade mark has been in use by Archibald Clark and Sons, Limited, since the incorporation of the company on the 21st day of September, 1898, and prior to that date it had been in use by Messrs. Archibald Clark and Sons, who assigned their stock-in-trade and goodwill to the company on its formation, in respect of the articles mentioned, for twenty years.

# NAME.

ARCHIBALD CLARK AND SONS, LIMITED, Shortland Street Auckland, New Zealand, Soft-goods Merchants.

No. of class: 50.

Description of goods: Horse-covers, tents, and flies.

No. of application: 4035. Date: 19th December, 1902.

TRADE MARK.

(The mark as in preceding notice, No. 4034.)

The essential particular of this trade mark is the word "Zealandia," with the distinctive device, as already registered in Class 38, trade mark No. 259. The said trade mark has been in use by Archibald Clark

The said trade mark has been in use by Archibald Clark and Sons, Limited, since the incorporation of the company on the 21st day of September, 1898, and prior to that date it had been in use by Messrs. Archibald Clark and Sons, who assigned their stock-in-trade and goodwill to the company on its formation, in respect of the articles mentioned, for twenty years. NAME.

ARCHIBALD CLARK AND SONS, LIMITED, Shortland Street, Auckland, New Zealand, Soft-goods Merchants.

# No. of class: 38.

Description of goods: Collars, cuffs, fronts, mackintoshes, mantles, jackets, ready-made clothing, underclothing, aprons, hosiery.

No. of application: 4088. Date: 13th February, 1903.



NAME.

ANDREW GARDNER, of Nikau, Pahiatua, Wellington, New Zealand.

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

No. of application : 4092. Date : 18th February, 1903.

The word

TRADE MARE.



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: 4093. Date: 14th February, 1903.



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

NAME. J. NEWBERRY AND Co., Wellington, New Zealand, Manufacturers.

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

No. of application: 4094. Date: 19th February, 1903.

# TRADE MARK.

(The mark as in preceding notice, No. 4034.)

The essential particular of this trade mark is the word "Zealandia," with the distinctive device, as already registered in Class 38, trade mark No. 259.

The said trade mark No. 259. The said trade mark has been in use by Archibald Clark and Sons, Limited, since the incorporation of the company on the 21st day of September, 1898, and prior to that date it had been in use by Messrs. Archibald Clark and Sons, who assigned their stock-in-trade and goodwill to the company on its formation, in respect of the articles mentioned, for twenty years.

### NAME.

ARCHIBALD CLARK AND SONS, LIMITED, Shortland Street, Auckland, New Zealand, Soft-goods Merchants.

No. of class: 13. Description of goods: Needles and pins.

No. of application: 4095. Date: 19th February, 1903.

# TRADE MARK.

(The mark as in preceding notice, No. 4034.)

"The essential particular of this trade mark is the word "Zealandia," with the distinctive device, as already registered in Class 38, trade mark No. 259. The said trade mark has been in use by Archibald Clark

The said trade mark has been in use by Archibald Clark and Sons, Limited, since the incorporation of the company on the 21st day of September, 1898, and prior to that date it had been in use by Messrs. Archibald Clark and Sons, who assigned their stock-in-trade and goodwill to the company on its formation, in respect of the articles mentioned, for twenty years. MAR. 5.]

# THE NEW ZEALAND GAZETTE.

NAME.

ARCHIBALD CLARK AND SONS, LIMITED, Shortland Street, Auckland, New Zealand, Soft-goods Merchants.

No. of class: 25.

Description of goods: Cotton, Petersham belting, and tapes.

No. of application : 4096. Date: 19th February, 1903.

TRADE MARK.

(The mark as in preceding notice, No. 4034.) The essential particular of this trade mark is the word "Zealandia," with the distinctive device, as already registered in Class 38, trade mark No. 259.

tered in Class 38, trade mark No. 239. The said trade mark has been in use by Archibald Clark and Sons, Limited, since the incorporation of the company on the 21st day of September, 1898, and prior to that date it had been in use by Messrs. Archibald Clark and Sons, who assigned their stock-in-trade and goodwill to the company on its formation, in respect of the articles mentioned, for twenty years.

NAME.

ARCHIBALD CLARK AND SONS, LIMITED, Shortland Street, Auckland, New Zealand, Soft-goods Merchants.

No. of class: 40. Description of goods: Waterproof carriage-rugs.

No. of application: 4097. Date: 19th February, 1903.

TRADE MARK.



The essential particular of this trade mark is the word "Aceandes," with the distinctive device of a Viking ship.

NAME.

ARCHIBALD CLARK AND SONS, LIMITED, of Shortland Street, Auckland, New Zealand, Soft-goods Merchants.

No. of class: 38. Description of goods: Aprons, blouses, skirts, underclothing, corsets, and gloves.

No. of application: 4098. Date: 19th February, 1903.

The word

TRADE MARK.



NAME.

BOOTH'S DISTILLERY, LIMITED, of 55, Cow Cross Street, London, England, Distillers.

No. of class: 43. Description of goods: Fermented liquors and spirits.

No. of application : 4100. Date: 20th February, 1903.

The words

TRADE MARK.

NAME.

REGINALD ALBERT DUTTON, View Road, Mount Eden, Auckland, New Zealand.

No. of class: 3. Description of goods: Medicinal preparations.

No. of application : 4101. Date : 20th February, 1903.

The words

TRADE MARK.

GLO. ΖO

NAME.

EMILY DUTTON, View Road, Mount Eden, Auckland, New Zealand.

No. of class: 47. Description of goods: Starch.

No. of application : 4104. Date : 23rd February, 1903.

TRADE MARK.

FONO.

NAME.

SIR ISAAC PITMAN AND SONS, LIMITED, of the Phonetic Institute, Bath, in the County of Somerset, England, Shorthand and General Publishers and Printers.

No. of class: 39.

The word

Description of goods: Paper (except paper-hangings), stationery, and bookbinding.

No. of application : 4105. Date: 23rd February, 1903.



NAME.

CONTINENTAL-CAOUTCHOUC-UND GUTTA-PERCHA-COMPAGNIE, of No. 100, Vahrenwalderstrasse, Hanover, in the German Empire.

No. of class: 40.

Description of goods: Outer covers, air-tubes, and com-plete tires, both with thickened or wired edges.

# F. WALDEGRAVE, Registrar.

Subsequent Proprietors of Trade Mark registered.

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

N OS. 868/710 and 869/711.—The Craigellachie Glen-livet Distillery Company, Limited, of 175, St. Vincent Street, Glasgow, Scotland. [The Sterling Bonding Company.] 20th February, 1903.

F. WALDEGRAVE,

Registrar.

# Trade Marks registered.

Limited. ber, 1902.)

No. 3136; 4021.-J. A. Subritzky. Class 3. (Gasette No. 102, of the 11th December, 1902.)

No. 3137; 4023.—John Ferguson and Co. Class 43. (Gazette No. 102, of the 11th December, 1902.) No. 3138; 4017.—J. McK. Geddes. Class 42. (Gazette No. 102, of the 11th December, 1902.)

F. WALDEGRAVE, Registrar.

# Trade Mark Renewal Fees paid.

FIEES paid for renewal of undermentioned Trade Marks for fourteen years from the 1st January, 1904 :--No. 78/1303.--S. R. van Duzer, trading as Van Duzer and

Richards, of London, England (two trade marks). 27th Feb-ruary, 1903. No. 79/357.-S. R. van Duzer, trading as Van Duzer and Richards, of London, England (two trade marks). 27th February, 1903.
No. 79/357.-S. R. van Duzer, trading as Van Duzer and Richards, of London, England. 27th February, 1903.
No. 81/4456.-Reeve and Co., of Middlesex, England.
27th February, 1903.
No. 82/2904.-Bickford, Smith, and Co., of Tuckingmill, Cornwall, England. 20th February, 1903.
No. 82/4757.-Maltine Manufacturing Company, Limited, of Bloomsbury, Middlesex, England. 27th February, 1903.
No. 82/4757.-Maltine Manufacturing Company, Limited, of Bloomsbury, Middlesex, England. 27th February, 1903.
No. 83/750.-Reed and Carnrick, of New York, United States of America. 27th February, 1903.
No. 83/5365.-Bickford, Smith, and Co., of Tuckingmill, Cornwall, England. 20th February, 1903.
No. 86/520.-The Sanitas Company, Limited, of London, England. 20th February, 1903.
No. 86/3918.-S. Clarke, of London, England. 27th February, 1903.
No. 88/4029.-J. Harris and Sons, of Cockermouth, England. 18th February, 1903.
No. 89/1248.-Price's Patent Candle Company, Limited, of London, & c., England (eleven trade marks). 27th February, 1903.

of London, &c., England (eleven trade marks). ruary, 1903.

F. WALDEGRAVE, Registrar.

By Authority: JOHN MACKAY, Government Printer, Wellington.