

## SUPPLEMENT

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#### OFFICIAL NOTICES.

Copies of Drawings.

C<sup>OPIES</sup>, by the helio. process, of drawings accompanying applications for Letters Patent may be obtained from the Patent Office at 1s. a sheet.

#### Library.

THE library attached to the Patent Office is open free to the public during office hours. It contains, amongst others, the following publications, viz.:-

Specifications and Drawings of Inventions patented in the United Kingdom, to June, 1899. Classified Abridgments of such Inventions, to 1896, i

clusive. The English Illustrated Official Journal (Datanta) to the

- The English Illustrated Official Journal (Patents), to the 16th January, 1901. The English Trade Mark Journal, to the 28th November,
- 1900. The Official Gazette of the United States Patent Office, to

the 5th February, 1901. The Canadian Patent Office Record,\* to the 31st October, 1900.

The Patent Gazettes of the States of the Austra ian Commonwealth (received weekly).

The Propriété Industrielle, to the 31st December, 1900. \* This periodical may also be seen at the Free Public Libraries at Auckland and Christchurch. THE following publications can be obtained from the Government Printer, viz.:-

- Printed Specifications to the end of the year 1879.
- Annual Lists of Letters Patent and Letters of Registration applied for, and Particulars of Applications lapsed and Patents lapsed, from 1880 to 1888, inclusive.
- Annual Reports of the Registrar, containing Alphabetical Lists of Applicants for Letters Patent and of Inventions patented from 1889 to 1899, inclusive.

Notice of Acceptance of Complete Specifications.

#### Patent Office,

Wellington, 6th [March, 1901. OMPLETE specifications relating to the under mentioned applications for Letters Patent have been accepted, and are open to public inspection at this office. Any person may, at any time within two months from the date of this *Gazette*, give me notice in writing of opposition to the grant of any such patent. Such notice must set forth the particular grounds of objection, and be in duplicate. A fee of 10s. is payable thereon.

No. 12642.—23rd May, 1900.—CHARLES SUTTIE, of Onehunga, New Zealand, Tanner. An improved roller crushingor grinding-mill for crushing or grinding mineral or other substances.\*

Claims.—(1.) In the apparatus described, in combination, a fixed cylindrical chamber, having an opening at the top of the circumference for feeding in the material to be operated on, and having openings for shaft of centre roller, and for reception of discharge-gratings, in the side plates, and also, if so required, an opening for the reception of dischargegratings in the portion of the circumference opposite the grinding side of mill, and also having placed within such chamber—(a) a centre roller, with a shaft thereto attached potruding through the openings provided in the side plates and weighted to suit requirements, and (b) a number of loose rollers surrounding such centre roller in the manner and operating substantially as set forth. (2.) An apparatus or mill for crushing or grinding mineral or other material, and for similar cperations, consisting of parts constructed, 'arranged, and operating substantially as set forth. (3.) The combination and arrangement of parts comprising my improved mill substantially as and for the purposes set forth, (Specification, 5s.; drawings, 4s.)

No. 12643.—29rd Ma anga, New Zealand, -23rd May, 1900.—CHARLES SUTTIE, of One-Zealand, Tanner. Improvements in solehunga. leather rolling machines.\*

Claim.--A device comprising one or more springs, of a strength sufficient to raise the hanging weight of a double-roller sole-leather-rolling machine, so placed with stays and connections as to connect and exert tension between the most convenient part of the framework or fixed portion of the machine and either (a) the bushes that carry the shaft of the uppermost roller or (b) the arms supporting such bushes, so as to take up all "slack" caused by wear and the superstructure carrying such uppermost roller, in h3 manner and operating substantially as described. (Specification, 3s. 3d.; drawings, 2s.)

No. 12647.-23rd May, 1900.-SIDNEY CHAYTOR ROSSE TREVOR, of Mangawhare, Auckland, New Zealand, Chemist. process for the extraction and manufacture of spirits and oils from kauri soil and refuse."

Claims. -- [1.] The described process of manufacturing spirits and oils from kauri refuse or kauri-gum soils as defined, consisting in retorting such kauri refuse or kauri-gum soils -- firstly, at a temperature of 212° to 220° Fahr., getting rid of and discarding the distillates flowing off at such temperatures; secondly, at a temperature of 280° to 300° Fahr., collecting and saving the entire dis-tillates flowing off at such temperatures and the inter-mediate temperatures from 220° Fahr.; thirdly, at a tem-perature of 700° to 900° Fahr., collecting and saving the entire distillates flowing at such temperatures and the inter-mediate temperatures from 300°. mixing the collected and entire distillates flowing at such temperatures and the inter-mediate temperatures from 300°, mixing the collected and saved distillates as aforesaid, and clarifying such collected and saved distillates by decanting and agitating with sand, substantially as described. (2.) In the described manufac-ture of epirits and oils from such kauri refuse or kauri gum soils, retorting the same at the temperatures and in manner substantially as described. (3.) In the described manufac-ture of spirits and oils from such kauri refuse or kauri gum soils decenting the supernatant linuor of the settled distilsoils, decanting the supernatant liquor of the settled disti-lates, and treating the same by contact with sand, substan-tially as described.

(Specification, 3s. 3d.)

No. 12659.—80th May, 1900.—ROBERT ALEXANDER MC-LEOD, of Kaihu, Auckland, New Zealand, Contrastor. An improved hauling, lifting, and lowering winch.\*

Claims.-(1.) In a winch, a circular guide-way, a winch barrel mounted to move around said guide way in a horizontal plane, looking-device for holding the winch-barrel as adjusted, a horizontal gear-wheel, a driving shaft for said horizontal gear-wheel, a vertical gear-wheel meshing with said hori-tontal gear-wheel, a gear carried by the winch-barrel and engaging the said vertical gear-wheel, a shaft extending verti-cally from the horizontal gear-wheel, and a capstan on the upper end of said shaft, substantially as specified and illus-trated. (2.) In a winch, a supporting frame, a winch-barrel supported by said frame, a circular guide on which the frame is adjustable on a horizontal plane, means for securing the said frame and winch as adjusted on said horizontal plane, a is adjustable on a borizontal plane, means for securing the said frame and winch as adjusted on said horizontal plane, a horizontal gear wheel, means for rotating said gear wheel, a vertical gear-wheel loosely mounted on a shaft and engaging with the horizontal gear wheel, a gearing connection between the shaft of the said vertical gear and the winch barrel, a capstan on the outer end of said shaft, and a drum mounted on the shaft with said vertical gear and operated from the said horizontal gear-wheel, substantially as specified and illustrated. (3.) In a device of the character described, a circular guide, a winch-barrel rotating on a horizontal axis, a platform or base upon which said winch-barrel is supported, clutch devices carried by said platform for engaging with re-cesses in the guide, a horizontal gear-wheel, a driving-shaft, clutch devices carried by said platform for engaging with re-cesses in the guide, a horizontal gear-wheel, a driving-shaft, a pinion loosely mounted on the driving-shaft and adapted for engagement with the gear-wheel, a clutch-connection between said pinion and the shaft, and a gear connection between the said gear-wheel and the winch-barrel, substan-tially as specified and illustrated. (4.) In a device of the character described, a circular guide, a platform mounted to rotate on said guide, means for securing the platform as adjusted on the guide, a vertical shaft, a capstan on the upper end of said shaft, a gear-wheel at the lower end of said shaft, end of said shaft, a gear-wheel at the lower end of said shaft, a driving shaft having a pinion-connection with said gear-wheel, a spindle, a pinion lossely mounted on said spindle and adapted for engagement with the gear-wheel, means for locking said pinion in connection with the spindle, a gipsy on the outer end of said spindle, a gear-connection between the spindle and the winch-cylinder, and a drum having gear-connection with said spindle, substantially as specified and

illustrated. (5.) In a device of the character described, a winch-barrel mounted to rotate on a horizontal axis and also to turn for adjustment about a vertical axis, clutch-con-trolled gearing for causing the movement of the winch-barrel, and means for securing the winch as adjusted, substantially as specified and illustrated. (Specification, 4s. 6d.; drawings, 2s.)

No. 12873.—12th June, 1900.—AUGUSTINE JOHN MADDEN, of 187, Little Collins Street, Melbourne, Victoria, Metal-worker. Improved automatically cleansing filter.\*

Claims.—(1.) In combination, a cylinder connected with water-supply pipe, a tubular body of filtering-substance set within same and having its inside communicating with outlet-duct for filtered water at end of cylinder, a branch pipe paneeted with the cylinder and having a household tap, a triel carrying scrapers, brushes, and wipers encircling the final having means connected with the house

4 ring-body and having means connected with the house-hold tap whereby it is rotated on the turning on or off of the hold tap whereby it is rotated on the turning on or off of the tap, substantially as and for the purposes set forth. (2.) In combination, a cylinder connected at one end to water-supply pipe and having filtered-water outlet at other end, a gauze tube or strainer set in the supply-pipe, a hollow shaft communicating with same and opening into cylinder, a tubular filtering-body attached to cylinder-end, a branch pipe from main cylinder, a barrel carrying scrapers, brushes, and wirers and means for actuating set by turning on or pipe from main cylinder, a barrel carrying scrapers, brushes, and wipers, and means for actuating same by turning on or off a tap on the branch pipe, substantially as and for the purposes set forth. (3.) In combination, a cylinder con-nected at one end with water-service pipe and having outlet for filtered water at other end, a gauze tube or strainer extending into the supply-pipe and set in hollow shaft which opens into cylinder, a cover 6 carrying tubular filtering-body 9, a barrel carrying scrapers, brushes, and wipers encircling the filtering-bcdy and having bearing at one end in the cylinder-cover and at the other end being connected with bevel gear. a branch pipe form main cylinder, a tap in In the cylinder-cover and at the other end being connected with bevel gear, a branch pipe from main cylinder, a tap in same arranged so that bevel gear is actuated and barrel is rotated on the turning on or off of said tap, substantially as and for the purposes set forth. (4.) In combination, a cylinder connected with water-service pipe at one end and having outlet for filtered water at other end, a tubular filtering-body connected with one end of cylinder, a barrel filtering-body connected with one end of cylinder, a barrel carrying scrapers, brushes, and wipers encircling same, a hollow shaft supported by cylinder, a locse bavel pinion 30 on same connected with barrel carrying scrapers, brushes, and wipers, a branch pipe 21 (with extensions) connected with cylinder, a sleeve 32 on hollow shaft, a pin 36 pro-jected from the sleeve, a bavel pinion 35 on the pin, a sleeve 40 connected with bevel pinion 35, and having square porticn 41, a rod 42 having square end entering sleeve, a valve on the rod 42 and a handle for actuating it whereby the bevel gcar is actuated and the barrel rotated while the valve will rise or fall on turning of screw-rod, substantially as and for the purposes set forth. (5.) In combination, a cylinder connected with water-service pipe at one end and having outlet for filtered water at other end, a tubular filter-ing-body connected with one end of cylinder, a barrel encircling the porous tube and constructed with scraper-plates 61, wire-gauze brushes 62, and wipers 63 which impinge encircling the porous tube and constructed with scraper-plates 61, wire-gauze brushes 62, and wipers 63 which impinge on surface of filtering body, a branch pipe, and means con-nected with household tap on branch pipe for actuating the barrel, substantially as and for the purposes set forth. (6.) In combination, a cylinder connected with water-service pipe at one end and having outlet for filtered water at other end, a tubular filtering-body connected with one and of cylinder, a barrel encircling the porous tube constructed with hollow end 52 having perforations 53, 54, at front, and holes 55, 56, at back (to receive hollow shaft 22 and pins 33 of bevel binion respectively), and having rim 57 and bearing of bevel pinion respectively), and having rim 57 and bearing-ring 60, with connecting bars 59, scrapers 61, brushes 62, and wipers 63 attached to bars and arranged to impinge on periphery of filtering-body, a spring plate 65 connected to a bar and carrying rubber strip impinging on end outer face of filtering-body, a branch pipe and means connected with household tap on branch pipe for actuating the barrel, subhousehold tap on branch pipe for actuating the barrel, sub-stantially as and for the purposes set forth. (7.) In combi-nation, a cylinder 4 attached at one end to socket of tap 1, its other end having cover 6 which carries tubular filtering-body 9, a water-channel through the cover, an outlet-cylin-der 12, a pipe 50 communicating with same, a valve 16 actuated by screw rod 14 in the cylinder 12, a barrel having scrapers, brushes, and wipers set within the cylinder and en-circume the tubular filtering hold a branch supe of which a scrapers, brushes, and wipers set within the cylinder and en-circing the tubular filtering body, a branch pipe 21 with tap, and means whereby barrel is rotated on turning of tap, sub-stantially as and for the purposes set forth. (8.) In combi-nation, a cylinder connected at one end to tap and having cover 6 at other end carrying tubular filtering-body 9, a barrel 8 having scrapers, brushes, and wipers impinging on filtering-body and bearing at one end on the cover 6, an outlet-passage and tap connected with the cover 6, a gauze

strainer supported on a valve-tube 24 at entrance to filter, a strainer supported on a valve-tube 24 at entrance to niter, a hollow shaft 22 connected with same and carrying loose bevel pinion connected with barrel carrying scrapers, brushes, and wipers, a branch pipe 21 (with extensions) connected with cylinder, a sleeve 32 on hollow shaft, a pin 36 projected from the sleeve, a bevel pinion 35 on the pin, a sleeve 40 connected with bevel pinion 35, and having square portion 41, a red 42, beving scourse and aptoring slow a value on the connected with bevel pinion 35, and having square portion 41, a rod 42 having square end entering sleeve, a valve on the rod 42 and a handle for actuating it whereby the bevel gear is actuated and the barrel rotated, while the valve will rise or fall, on turning of screw-rod, substantially as and for the purposes set forth. (9.) The combination and arrangement of the parts substantially as described with reference to and illustrated in Figs. 1, 2, and 3 of the drawings. (10.) The alternative combination and arrangement of the parts sub-stantially as described with reference to and illustrated in Fig. 10 of the drawings. (Specification, 8s.; drawings, 3s.)

(Specification, 8s.; drawings, 3s.)

No. 13030 .- 27th September, 1900 .- LAMBERT VAN LAAK, No. 13030.—27th September, 1900.—LAMERT VAN LAAK, of 3178, 17th Street, San Francisco, California, United States of America, Manufacturer; and HUGH CRAIG, of 210, Sangome Street, San Francisco aforesaid, Merchant; and WILLIAM SWINTON LAURIE, of Auckland, New Zealand, Mer-chant. The manufacturing and production of brooms, brush-ware, and scrubbers, of each and every kind and description, from the leaves and fibre of the *Phormium tenax* (New Zea-land flax).\* land flax).

Claims.-(1.) A process of preparing the Phormium tenax Claums.-(1.) A process of preparing the Phormium tenax for manufacture into brushes or brooms, consisting in first splitting the leaves into strips or fibres, separating them into epproximately equal sizes, then bleaching the strips. (2.) A material for the manufacture of brushes and brooms as a new article of manufacture, consisting of the Phormium tenax split into narrow strips of graded sizes, and bleached. (Specification, 1s. 3d.)

No. 13212.-5th December, 1900.-JOHN WILLISON, of 83, Becker Street, Derby, England, Pattern-maker. Im-provements in couplers and buffers for railway cars.

provements in couplers and buffers for railway cars. Claims.—(1.) In a coupler for railway-carriages, the combi-mation with a knuckle, of a knuckle-opening piece without fixed pivot moving in a substantially vertical plane within the coupler-head behind the knuckle, and means of moving back the lower end of the piece and of tipping its upper end forwards against the knuckle, substantially as de-scribed. (2.) In a coupler having a knuckle-lock, an opening-lever made with a shoulder engaging and raising the lock, and with a nose engaging and moving the knuckle, this lever having no fixed pivot, but having guides leading it towards an upright position and per-mitting it to be tipped, substantially as described. (3.) In combination with the coupler-head and coupler-knuckle, a lock carried by the tail and having a head, a stop-shoulder in the coupler-head engaged by the other end of the lock, substantially as described. (4.) The con-struction of the coupler-head with an inclined surface and stop-shoulders so arranged that on the return of the knuckle the lock is raised by the incline above the stop-shoulders, substantially as described. (5.) For working the coupler, a lever at the side of the car, having its fulcrum connected to the coupler-head and mounted on a laterally movable hanger, a rod extending from the other end of the lever to a hanger at the other side of the car, substantially as de-scribed. (6.) A coupler for railway-cariages constructed and operating substantially as described with reference to scribed. (6.) A coupler for railway-carriages constructed and operating substantially as described with reference to Figs. 1 to 18, inclusive. (7.) In combination with the buff-ing draw-head of a railway vehicle, a spring arranged to be compressed by the forward movement of the draw-head, and The order of the spring p on the spring p and here p of the draw-head, and a second spring which, as well as the first, is compressed by the rearward movement of the draw-head, substantially as described. (8.) In combination with or in substitution for the ordinary draw-bar and buffers of a railway vehicle, a coupler b constructed to act also as a central buffer, a spring c for it, and a pair of levers k connecting this spring with either the ordinary draw-spring g or with an equivalent spring f in such a manner that the buffer-motion is partly taken on the compression of the spring c and partly in the movement of that spring f, so that a large buffing-stroke is effected with moderate action on the springs, substantially as described. (9.) In combination with the coupler-head b, a pair of springs p arranged to act on lateral arms of the coupler when it is moved to either side, and to restore it to middle position, substantially as described. (Specification, 12s.; drawings, 10s.)

No. 13221. — 3rd December, 1900. — ALFRED GEORGE OCKENDEN, of Auckland, New Zealand, Music-instrument Music sheet or book holder and carrier. Dealer.

Claim.—In a sheet music holder or bag, the folding of the lower part over the upper part, with the flap secured over the lower part by straps, for the purpose set forth, sub-stantially as described and illustrated. (Specification, 1s. 3d.; drawing, 1s.)

No. 13267. — 21st February, 1901. — ANDREW CHARLES POCOCK, of Dannevirke, New Zealand, Plumber, and EDWIN TOMS, of Palmerston North, New Zealand, Commercial Traveller. Improvements in acetylene-gas generators.

Claims.-(1.) Exhaust-pipe CC, connected to trap-screw C, and working in combination with holder B. (2.) The levers D and valve DD, working in combination with holder B and water supply pipe E. (3.) Revolving carbide-cells H with pivots attached, supported by rods J in the slits JJ. (4.) Shield I and check valve II, working in combination with water-supply pipe E. (5.) Revolving fastenings N with thumb-screw attached, working in com-bination with cover-lids of chambers G. (Specification, 1s. 6d.; drawings, 1s.)

No. 13331. — 24th January, 1901. — John Jamison, of Princes Street, Dunedin, New Zealand, Draper. An im-proved tidal-power motor.

Claims.-(1.) A tidal-power motor consisting of two or more reservoirs and two or more water wheels, constructed and operating continuously, as substantially set forth in the drawings and specifications. (2.) In retaining a sufficient quantity of water at flood-tide, and in providing mears for the disposal of same, whilst it operates on the motors at adverse stages of the tide when it would otherwise be impos-sible to do so, as described and set forth. (3.) In a plurality of reservoirs and motors, in which all the water-power is utilized during both increase and corner and in which it is utilised during both ingress and egress, and in which it is made to perform from two- to seven fold duty in the interval, as set forth in the drawings and specifications. (Specification, 18. 9d.; drawings, 1s.)

No. 13336.-21st May, 1900.-CHARLES ALBERT KELLER, of 88, Rue du Rocher, Paris, France, Engineer. Improvements in electrical furnaces.

[NorE.-This is an application under section 106 of the Act, the date given being the official date of the application in France.]

Claims.- (1.) An improved electric furnace in which two sole-plates are combined to form electrodes in a single sole-plates are combined to form electrodes in a single furnace, each of said sole-plates being respectively connected to one of the terminals of the source of electricity, in such a manner that the electric current flowing from one sole-plate to the other through the material to be treated can heat the same to incandescence and fusion, substantially as set forth. (2.) In an electric furnace of the type set forth, the arrange-ment upon the two sole-plates of movable carbons supported by the fixed carbons, the said movable carbons heavy the only by the fixed carbons, the said movable carbons being the only replaceable electrodes, and preferably composed of the freg-ments of electrodes otherwise useless for the industry, subments of electrodes otherwise useless for the industry, sub-stantially as set forth. (3.) In an electric furnace of the type set forth, a sole-plate formed of a plurality of fixed carbons receiving the electric current by contact on their faces by means of thin copper conductors in the manner set forth, and transmitting the same to small electrodes placed loosely upon them, the melting-bed of this sole-plate b-ing separated from the chamber containing the electric contacts separated from the chamber containing the electric contacts by means of a floor of refractory material preventing the heating of the contacts by conduction, and permitting the said contacts to be accessible and capable of refrigeration, if requisite, substantially as set forth. (4.) In an electric fur-nace of the type set forth, the arrangement of a melting-bed between two mobile sole-plates in such a manner as to admit of the resistance of the furnace being regulated by the mov-ing towards or from one another of the said mobile sole-plates, and the avoidance, if necessary, of contact of the material treated with the carbons of the sole-plates; said sole-plates having metallic contact-pieces passing through sole-plates having metallic contact-pieces passing through channels formed in the brickwork of the furnace bed in such a manner as to prevent the falling-down of the conducting body or of the material treated, substantially as set forth. (5.) The improved electric furnace with or without hermeti-cally sealed fusion-chamber, constructed as described and illustrated, with reference to the drawings. (Specification, 9s.; drawings, 2s.)

No. 13389.—7th February, 1901.—JOHN ALWENT CHAPMAN, of 49, Moray Place, Dunedin, New Zealand, Legal Manager (Mining). Improvements in working dredges on running water.

Claims.—(1.) In dredging for gold in rivers having cur-rents strong enough for the purpose, the combination of a boat, punt, or pontoon carrying current-wheels which drive electric motors or dynamos by gearing for the purpose of generating a current of electricity, with an ordinary dredge having a motor capable of receiving and being driven by the current generated on the first pontoon, and thus working as a dredge for gold-dredging, substantially as described and shown, and as illustrated in the drawing. (2.) In gold-dredging, in combination, pontoons A, carrying current-wheels C, having water from the current guided to the said wheels by bell-mouthed guides D, and stopped off by doors E geared to and capable of driving a motor F, with any ordinary dredge B, capable of being driven by electricity so generated, substantially as shown and described, and as illustrated in the drawing. (Specification, Ss.; drawings, 1s.)

No. 13390.—7th February, 1901.—ALEXANDER HAMILTON CHAPMAN, of Kurow, Oamaru, New Zealand, Sheep-farmer. An improved means for treating frozen meat of all kinds, or chilled meat, while the same is being thawed.

Claim.—In the process of defrosting meat, the use of coverings or envelopments of a material which is water-proof and airproof, or semi-airproof, substantially as and for the purposes set forth. (Specification, 1-. 3d.)

No. 13392.—12th February, 1901.—JOHN MONTGOMERY, of Wellington, New Zealand, Commercial Traveller. An improved fastening for the straps of animal-covers, and other analogous purposes.

Claim.--In fastenings for the straps of horse- and animal-Cotarm.—In fastenings for the straps of horse- and animal-covers, and for other analogous purposes, an appliance containing a series of steps secured to the cover, in com-bination with a hock-shaped appliance, one member of which is provided with a returning projection, and the other end with a loop, to which the strap to be secured is fastened, as specified, and as illustrated in the sheet of drawings, and for the nurvess set forth and for the purposes set forth. (Specification, 2s. 3d.; drawings, 1s.)

No. 13396.-18th February, 1901.-THE CLYDE CHEMICAL COMPANY (LIMITED), of 133, Pitt Street, Sydney, New South Wales (assignees of George Cox, of Burnett Street, Parra-matta, New South Wales aforesaid, Manufacturing Chemist). Improvements in the means employed for the extraction of oxide of obromium from its ores, and its subsequent treatment to obtain soluble salts.

Claims.—(1:) The process of obtaining the soluble salts of oxide of chromium from ores containing oxide of chromium, by the decomposition of the said ore by the admixture of lime or hydrate of lime, in the manner de-scribed and for the purposes set forth. (2.) In the conversion of oxide of chromium into soluble chromates of potash or soda, the moulding of the pulverised ore, subsequent to its admixture with lime or hydrate of lime, into blocks, bricks, or briquettes, and the stacking of same into suitable kilns for treatment by fire in the same manner as for burning ordinary bricks, as and for the purposes set forth. (3.) In the manufacture of chromates and bichromates of potash or soda, the train of operations embracing the pulverisation of the manufacture of chromates and bionromates or potasn or sode, the train of operations embracing the pulverisation of the crude ore, its admixture with lime-hydrate or carbonate of lime, and suchlike alkaline earths in equal proportions, and rendering the same plastic by the addition of water or a solution of sulphates or carbonates of potash or soda, and their conversion into moulded blocks, bricks, or briquettes, cal-cining the same at a sufficiently high temperature to produce decompation of the subscience. decomposition, then the subsequent pulverisation of the calcined mixture and its incorporation with a suitable per-centage of sulphates or carbonates of potash or soda, the proportions being ascertained by analysis, the conversion of the said mixture into blocks, bricks, or briquettes, and subjecting the same within a kiln to a low temperature sufficient to oxidize the oxide of chromium, and, finally, the further treatment by crushing and lixiviation with water to extract the soluble chromates, and the subsequent treatment by evaporation of the solution or liquor thus obtained, whereby evaporation of the solution of induor this obtained, whereby the resultant product obtained is chromate and bichromate of potash or soda, as and for the purposes set forth. (4.) The process described, both of mixture and admixture, in combination with the system of treating the material by fire in the form of blocks, bricks, or briquettes in large quantities, in kilns suitable therefor.

(Specification, 4s.)

No. 13397. — 13th February, 1901. — ASKIN MORRISON NICHOLAS, of Peak Hill, Western Australia, Mining Man-ager. An improved rotating filtering apparatus, principally for the separation of gold and silver-bearing solutions from slimes and the like.

Claims. — (1.) The described rotating filtering apparatus principally for the separation of gold- and silver-bearing solutions from slimes and the like, consisting essentially of a comparatively large annular horizontally rotating trough provided with a filter-bed of sand preferably resting upon filter-cloth, the lower part of said trough being connected with a vacuum pump, substantially as and for the purposes described and explained, and as illustrated in the drawings. (2.) In a rotating filtering apparatus, principally for the separation of gold- and silver-bearing solutions from slimes and the like, an annular horizontally rotating trough pro-vided with a filtering material such as sand, and connected vided with a filtering material such as sand, and connected with a vacuum pump, substantially as and for the purposes described and explained, and as illustrated in the drawings. described and explained, and as illustrated in the drawings. (3:) In a rotating filtering apparatus, principally for the separation of gold- and silver-bearing solutions from slimes and the like, a horizontally rotating filter-bed of sand resting upon a layer of filter-cloth or other support, the lower part of the trough containing such sand connected with a vacuum pump, together with means for feeding slimes on to said filter bed and subsequently removing them therefrom, substantially as and for the purposes described and explained, and as illustrated in the drawings. (4.) In a rotating filtering any rotating filter bed and subsequently removing them gold and silver-bearing solutions from slimes and the like, an annular horizontally rotating trough containing a bed of filter-sand in combination with a vertical hollow shaft with which the bottom or lower part of said trough is connected by a series of radial pipes, said hollow shaft being connected with a vacuum pump, substantially as and for the purposes described and explained, and as illustrated in the drawings. de-oribed and explained, and as illustrated in the drawings. (5.) In a rotating filtering apparatus, principally for the separation of gold- and silver-bearing solutions from slimes and the like, a slimes supply launder delivering into a feed-hopper discharging on to an inclined adjustable platform whereby the slimes are conducted on to the surface of the filter-bed, substantially as and for the purposes described and explained, and as illustrated in the drawings. (6.) In a rota ing filtering apparatus, principally for the separation of gold and silver bearing solutions from slimes and the like, an inclined adjustable slimes supply platform in combina-tion with a curved baffle-plate on to which the slimes are discharged by said platform for delivery on to the surface of the filter bed, substantially as and for the purposes described and explained, and as illustrated in the drawings. (7.) In a and explained, and as illustrated in the drawings. (7.) In a rotating filtering apparatus, principally for the separation of gold- and silver bearing solutions from slimes and the like, an inclined adjustable scraper for the removal of the slimes from the filter bed after the gold- and silver-bearing solutions have been withdrawn, in combination with a screw or other conveyer, substantially as and for the purposes described and explained, and as illustrated in the drawings. (8.) In a matrixe filtering apparentiation principally for the separation of explained, and as illustrated in the drawings. (8.) In a rotating filtering apparatus, principally for the separation of gold- and silver-bearing solutions from slimes and the like, a sand-hopper having an adjustably sliding door situated im-mediately behind the apparatus used for removing the slimes from the filter-bed, for the purpose of replenishing the sand removed by the scraper, substantially as and for the pur-poses described and explained, and as illustrated in the drawings. (Specification, Ss.: drawings, 28.)

(Specification, 8s.; drawings, 2s.)

No. 13399.—13th February, 1901.—FREDERICK EDWARD NEWTH, of Palmerston North, New Zealand, Printer. An improved handle for meat dishes and the like.

-An improved handle for meat-dishes, sauce-pans, Claim.rying-pans, and other such cooking-utensils, consisting of a slot or catch fixed to said utensil, upon which is fitted or adjusted a removable handle, substantially as illustrated and described.

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

No. 13404.—14th February, 1901.—JOSEPH WILKINSON, of Glen Mill, Burton-in-Lonsdale, York, England, Photo-grapher. Improvements in producing mixtures of vaporised oil and air for heating, lighting, and motor purposes.

-The method of obtaining a self-burning mixture Claim.of vaporised oil and air by driving or drawing air through the described apparatus, in which apparatus is introduced a mixture of benzoline and parafin oil, substantially as and in the proportions described. (Specification, 8s.; drawings, 3s.)

No. 13406.---14th February, 1901.---THE AMERICAN TO-BACCO COMPANY, a corporation organized and existing under the laws of the State of New Jersey, and having its place of business at 111, Fithh Avenue, New York, United States of America (assignee of Rufus Lenoir Patterson, of Manhattan, New York aforesaid, Mechanical Engineer). Improvements in containing versels.

Claims.—(1.) The combination with a metallic containingvessel, having a shoulder which is substantially parallel to the wall of the vessel, of a cover having a fixible securingtongue which is adapted to be seamed between its ends beneath the shoulder of the vessel, said tongue having an outwardly turned end to form a finger-hold, substantially as described. (2.) The combination with a containing-vessel, having a shoulder, of a cover having a flaxible weakened tongue which is adapted to be seamed beneath the shoulder of the vessel, so as to provide an extension beyond the line of seaming, substantially as described. (3.) The combination with a containing-vessel having a shoulder of a cover having a flaxible securing-tongue connected thereto, the tongue being weakened at the line of juncture with the cover, and being adapted to be seamed between its ends beneath the shoulder of the vessel, so as to provide an extension beyond the line of seaming, substantially as described. (4.) The combination with a containing-vessel having a shoulder of the tongue having a line of weakness which is substantially coincident with the line of juncture between the cover and the tongue having a line of orm a finger-hold, substantially as described. (5.) The combination with a containingvessel having a shoulder of a cover provided with flaxible securing tongues adapted to be seamed between its ends beneath the shoulder of a cover provided with flaxible securing tongues adapted to be seamed between the cover and the line of seaming, substantially as described. (6.) The combination with a metallic containing-vessel having its edge turned downward and then upward to form a shoulder, the outer wall of said shoulder being flattened, of a cover having a flange which extends substantially to the lower edge of the shoulder, said flange having flattened, of a cover having a flange which extends substantially as described. (8.) The combination with a metallic containing-vessel having its edge turned downward and then upward to form a sh

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

No. 13407.—14th February, 1901.—LUCIEN IRA BLAKE, of Lawrence, Kansas, United States of America, Professor, and LAWRENCE NORTON MORSCHER, of Neodesha, Kansas aforesaid, Student. Process of and mechanism for separation of conductors from non-conductors.

Claims. -(1.) The described process of effecting the separation of the electric conducting particles of a mass from the non-conducting particles of the same, which consists in electrically charging the particles of such a mass by submitting the same to an electrostatic field or charge of one potential, and then subjecting such mass to an electrostatic field or charge of opposite potential, whereby the conducting and quickly electrified particles are repelled from the non-conducting particles of slow electrification. (2.) The described process of separating conducting particles from a mass of non-conducting particles, which consists in conducting a stream of the combined particles or grains through an electrostatic field of one potential, and then through an electrostatic field of another potential. (3.) An apparatus for effecting the separation of the conducting particles of a mixed mass from the non-conducting particles of the same, composed of an electrically charged repelling-surface of different potential from that of the mass, and means for conveying said mass into contact with said repelling surface. (4.) An apparatus for effecting the separation of the conducting particles of a mixed mass from the non-conducting particles of the same, composed of a conveying surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric charge, and a repellingsurface electrically charged at an opprisite potential from that of the mass, and arranged to receive the charged mass.

(5.) An apparatus for effecting the separation of the conduct-ing particles of a mixed mass from the non-conducting particles of the same, composed of a conveying surface, a source of electrostatic energy arranged relatively thereto for particles of the same, composed of a conveying surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric charge, and a repelling-sur-face electrically charged at an opposite potential from that of the mass, and arranged to receive the charged mass. (6.) An apparatus for the purpose above described, consisting of a conveying-surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric charge, and a moving repelling-surface electrically charged at a different potential from that of the mass, and arranged to receive the charged mass. (7.) An apparatus for the pur-pose described, consisting of a conveying surface, a source of electrostatic energy arranged relatively thereto for im-parting to the mass an electric charge, and a moving repelling-surface electrically charged at a noying repelling-surface electrically charged at a noying repelling surface electrically charged at an opposite poten-tial from that of the mass, and arranged to receive the charged mass. (8.) An apparatus for the purpose described, consisting of a conveying-surface, a source of electro-static energy arranged relatively thereto for imparting to the mass an electric charge, a repelling-surface electri-cally charged at a different potential from that of the mass, and arranged to receive the charged mass, and opposite said repelling-surface an electrically charged sur-face of opposite potential to that of the repelling-surface. (9.) An apparatus for the purpose described, consisting of a conveying-surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric potential to that of the repelling-surface. (9.) An apparatus for the purpose described, consisting of a conveying-surface an electrically charged sur-face of opposite potential to that of the repelling-surface. (9.) An apparatus for the purpose described, consisting of a conveying-surface for imparting to the mass an electric charge, a repe consisting of a conveying-surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric oharge, a repelling-surface electrically oharged at a different potential from that of the mass, and arranged to receive the charged mass, and opposite said repelling-surface an inclined surface electrically charged at an opposite poten-tial to that of the repelling-surface. (10.) An apparatus for the purpose above described, comprising a conveying surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric charge, a repelling-surface electrically charged at a different potential from that of the mass. and arranged to receive the charged mass, and oppoelectrically charged at a different potential from that of the mass, and arranged to receive the charged mass, and oppo-site said repelling-surface a series of inclined shutters elec-trically charged at an opposite potential to that of the repelling-surface. (11.) An apparatus for the purpose de-scribed, comprising a conveying-surface, a source of electro-static energy arranged relatively thereto for imparting to the mass an electric charge, an electrically charged plate of the mass an electric charge, an electrically charged plate of the same sign as the charge of the repelling-surface, and arranged above the lower end of the conveying-surface and between it and the repelling-surface, whereby the particles of the mass are attracted and lifted part of the way between the con-veying-surface and said plate, and deposited on the repelling-surface in a scattered condition, and a repelling-surface electrically charged at a different potential from that of the mass, and arranged to receive the charged mass. (12.) An annaratus for the nurse described comprising a conapparatus for the purpose described, comprising a con-veying-surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric apparatus for the purpose described, comprising a con-veying-surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric charge, a moving repelling-surface electrically charged at an opposite potential from that of the mass and arranged to receive the charged mass, an electrically charged inclined surface of opposite potential to that of the repelling-surface and arranged opposite thereto, and an electrically charged plate of the same sign as the charge of the repelling-surface arranged above the lower end of the conveying-surface and between it and the repelling-surface, substantially as and for the purpose above described. (13.) An apparatus for the purpose described, comprising a conveying-surface, a source of electrostatic energy arranged relatively thereto for imparting to the mass an electric charge, a revolving repel-ling-surface electrically charged at an opposite potential from that of the mass and arranged to receive the charged mass, an electrically charged inclined surface of opposite mass, an electrically charged inclined surface of opposite potential to that of the repelling surface and arranged oppo-site thereto, an electrically charged plate of the same sign as the charge of the repelling-surface arranged above the lower end of the conveying surface and between it and the repelend of the conveying surface and between it and the repel-ling-surface, and a scraper arranged to remove from the revolving repelling-surface any non-conducting particles which may adhere thereto. (14.) An apparatus for the pur-pose described, comprising a conveying-surface, a source of electrostatic energy arranged relatively thereto for im-parting to the mass an electric charge, a revolving repel-ling-surface electrically charged at an opposite potential from that of the mass and arranged to receive the charged mass, an electrically charged inclined surface of opposite potential to that of repelling-surface and arranged opposite potential to that of repelling-surface and arranged opposite thereto, an electrically charged plate of the same sign as the charge of the repelling-surface arranged above the lower end of the conveying surface and between it and the repelling surface, a scraper arranged to remove from the revolving repellingsurface any particles which may be adhering, and guiding-surfaces for receiving and guiding into proper receptacles the separated streams of conductors and non-conductors.

(Specification, 14s.; drawings, 1s.)

No. 13408.—14th February, 1901.—JOSEPH HENDERSON CAMPBELL, of Hotel St. George, Brooklyn, New York, United States of America, Chemist, and CHARLES HENDERSON CAMPBELL, of corner of Oak Lane and Ninth Street, Oak Lane, Philadelphia, Pennsylvania, United States of America, Manufacturer. Improved condensed or desiccated milk, and process and apparatus for preparing the same.

Manufacturer. Improved condensed or desiccated milk, and process and apparatus for preparing the same. Claims.—(1.) The described milk - product, being a con-densed milk, the solubility and peptogenic quality of the pro-teids of the milk being undiminished, substantially as set forth. (2.) The described milk product, being a desiccated milk containing the non-fatty solids of the milk, the solubility and peptogenic quality of the proteids of the milk being undiminished, substantially as set forth. (3.) The described milk-product, being a desiccated product containing the non-fatty solids of milk and a foreign alimentary ingredient intimately incorporated therewith, the solubility and pepto-genic quality of the proteids of the milk being undi-minished, substantially as set forth. (4.) The described process of treating milk, which consists in heating it to a temperature maintained below the coagulating point of albumen, whereby its proteids are preserved in soluble and peptogenic condition, and simultaneously concentrating it by exposure to a blast of air in such volume that it is con-centrated so rapidly as to prevent souring, substantially as set forth. (5.) The described process of treating milk, which consists in heating it to a temperature maintained below the coagulating-point of albumen, whereby its proteids are preserved in soluble and peptogenic condition, and simultaneously concentrating it by blowing air into it in such volume that it is concentrated so rapidly as to prevent souring, and whereby the entire body of milk is kept in constant motion, substantially as set forth. (6.) The de-soribed process of treating milk, which consists in heating it to a temperature maintained below the coagulating-point of albumen, whereby its proteids are preserved in soluble and peptogenic condition, and simultaneously concentrating it wold ar colding motion, whereby disengagement of the air-bubbles is facilitated and foaming reduced, substantially as set forth. (7.) The described process of treating milk, whic souring, the air being introduced in such direction as to scour the heated surfaces of the vessel and of any heating-coils therein, whereby to prevent the accumulation of a coating of milk-solids thereon, substantially as set forth. (8.) The described process of treating milk, which consists coating of milk-solids thereon, substantially as set forth. (8.) The described process of treating milk, which consists in heating it by a medium (as hot water) which may be of a temperature above the coagulating-point of albumen, and simultaneously concentrating it by blowing air into it, the volume of air introduced being such as to maintain the tem-perature of the milk below the coagulating-point of albumen and much below that of the heating-medium, whereby the milk is evaporated with great rapidity and souring is pre-vented, substantially as set forth. (9.) The described pro-cess of treating milk, which consists in heating it to a tem-perature maintained below the coagulating-point of albumen, whereby its proteids are preserved in soluble and peptogenic condition, and simultaneously concentrating it by blowing air into it in such volume that it is concentrated so rapidly as to prevent souring, and whereby the entire body of milk is kept in constant motion, the resultant temperature of the milk being gradually reduced as its water is evaporated and it becomes more dense, substantially as set forth. (10.) The described process of treating milk, which consists in heating it to a temperature maintained below the coagu-lating-point of albumen, whereby its proteids are preserved in soluble and peptogenic condition, and simultaneously concentrating it by blowing air into it in such volume that it is concentrated so rapidly as to prevent souring, and whereby the entire body of milk is kept in constant motion, and progressively reducing the area of the heated surfaces in contact with the milk as the latter diminishes in volume, so as to keep the heated surfaces below the level of the milk, substantially as set forth. (11.) The described process of in contact with the milk as the latter diminishes in volume, so as to keep the heated surfaces below the level of the milk, substantially as set forth. (11.) The described process of treating milk, which consists in removing the fatty matters and concentrating the remainder until it becomes viscous and solidifies, then subdividing the mass and exposing it to currents of air until desiccated, all being done so rapidly as to prevent souring and at a temperature below the coagulating-point of albumen, whereby the pro-teids are preserved in soluble and peptogenic condition, sub-stantially as set forth. (12.) The described process of treating milk, which consists in removing the fatty matters, and concentrating the remainder to the consistency of con-densed milk (from one-third to one-fifth its original volume),

then continuing the concentration until it becomes viscous then continuing the concentration until it becomes viscous by drawing it out to expose an extended surface, as by form-ing it into a thin coating on a supporting surface, or by causing it to fall in a shower, and blowing a current of heated air over it while thus extended, substantially as set forth. (13.) The described process of treating milk, which consists in drawing it out into a coating upon an upwardly moving surface, and blowing a current of heated air over it until it becomes so thick that it rolls down said surface, so that the viscous mass is exposed repeatedly to the drying moving surface, and blowing a current of heated air over it until it becomes so thick that it rolls down said surface, so that the viscous mass is exposed repeatedly to the drying action of the air-current until it is solidified or semi-solidi-fied, substantially as set forth. (14.) The described process of treating milk, which consists in removing the fatty matters and concentrating the remainder until it becomes viscous, mixing it with a dry powder (which may be the powdered desiccated milk or some other alimentary powder) to render it solid or semi-solid, then subdividing the mass and exposing it to currents of air until desiccated, all being done so rapidly as to prevent souring and at a temperature below the coagulating-point of albumen, whereby the pro-teids are preserved in soluble and peptogenic condition, sub-stantially as set forth. (15.) The described process of treating milk, which consists in removing the fatty matters and concentrating the remainder to the consistency of con-densed milk, then continuing the concentration by drawing it out to expose an extended surface, and blowing a current of heated air over it until it becomes a nearly dry mass, then granulating this mass, and rolling the particles thereof over and over while blowing heated air over the mass, until the material is desiccated, after which it may be ground to a flour, substantially as set forth. (16.) The desoribed appa-ratus for condensing milk comprising in combination a tank A, means for heating the milk in said tank by circula-tion of a heating-medium such as hot water, and comprising an outer jacket a or inner pipes b, or both, a blowar C and nozzles f arranged to blow a blast of air into said milk in such direction as to cause the milk to circulate in said tank with a rolling motion so as to facilitate the escape of air and nozzles f arranged to blow a blast of air into said milk in such direction as to cause the milk to circulate in said tank with a rolling motion so as to facilitate the escape of air and prevent foaming, substantially as set forth. (17.) The de-scribed apparatus for condensing milk, comprising, in com-bination, a tank A, means for heating the milk in said tank by circulation of a heating-medium such as hot water, and comprising an outer jacket a or inner pipes b, or both, a blower C and nozzles f arranged to blow a blast of air into said milk, said jacket and pipes being provided with a series of valves at different levels, whereby the level of the heating-medium may be lowered to keep it below the level of the milk as the latter decreases in volume, substantially as set forth. (18.) The described apparatus for treating milk, commilk as the latter decreases in volume, substantially as set forth. (18.) The described apparatus for treating milk, com-prising, in combination, a revolving cylinder B with partly closed ends for receiving the milk and carrying up a coating thereof on its inner surface, and a pipe for directing a blast of heated air within said cylinder to evaporate the mass, substantially as set forth. (19.) The described apparatus for use in the desiccation of milk, comprising, in combina-tion, means for reducing the milk to a granular mass, a final desiccating drum H having absorbent walls for taking up moisture from the mass and evaporating it, a pipe 14, having nozzles for discharging heated air upon the mass, and means for rotating said drum to expose all parts of the granular mass in turn to the desiccating action of the heated air. (20.) The described apparatus for the complete desice iton of milk, comprising, in combination, the tank A and appurtenances for condensing the milk, the revolving cylinappurtenances for condensing the milk, the revolving oylin-der B and appurtenances for receiving the condensed milk from the tank A and reducing it to a semi-solid condition, the breaker F and granulator G and appurtenances for receiving in turn the semi-solid mass from the cylinder B and reducing the same to a granular condition, and the drum H and ap-purtenances for receiving the granular mass from the granu-lator G and completely desiccating the same, substantially as set forth

(Specifications, 16s.; drawings, 2s.)

No. 18409.—14th February, 1901.—THOMAS DOUGLAS, of Baltic Wharf, London, England, Engineer. Improvements in apparatus for cooling air.

Claims.—(1.) An apparatus for cooling air, consisting of a tower containing broken pieces of coke or like material, and having an inlet for air at the bottom and an outlet at the top, in combination with a distributer for delivering cooling liquid on top of the coke and means for circulating such liquid, substantially as described. (2.) The construction of the said cooling-tower with an air distributing chamber beneath the grating which supports the coke, substantially as and for the purpose specified. (3.) The combination, with the cooling-tower herein described, of 'a reservoir for the cooling-liquid, constructed either separately from the tower (in which case a pipe such as o, furnished with a trap or seal, drains the tower), or constructed integrally with the tower, and forming in some cases the

evaporator-chamber of a refrigerating plant, substantially as described. (4.) An apparatus for cooling air, constructed substantially as described with reference to either of the forms or modifications illustrated in the drawings, and operating as specified.

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

No. 13410.—12th February, 1901.—MICHAEL IDVORSKY PUPIN, of 280, North Broadway, Yonkers, New York, United States of America, Adjunct Professor of Mechanics, Columbia University, in the City of New York. Improvements in the art of reducing attenuation of electrical waves, and apparatus therefor.

Claims.-(1.) The method of diminishing the attenuation nstant of a uniform wave-conductor which consists in constant of increasing the inductance of the conductor sufficiently to secure the required diminution of the attenuation constant, secure the required diminution of the attenuation constant, by distributing along it inductance sources at periodically recurring points, the distance between consecutive points being such as to preserve approximately its charactor as a uniform conductor with respect to the waves to be trans-mitted, substantially as described. (2.) In a system of electrical-wave transmission, a non-uniform wave conductor consisting of a conductor having reactance-sources distri-buted at points along its length in such manner that the resulting wave-conductor is equivalent, within proper limits, to its corresponding uniform conductor, but of increased effective inductance, substantially as described. (3.) In a system of electrical-wave transmission, a non-uniform wave-conductor consisting of a uniform conductor, along which conductor consisting of a uniform conductor, along which reactance sources are distributed, the total reactance and reactance sources are distributed, the total reactance and the distance between the reactance-sources being determined by the wave-lengths to be transmitted, and by the required degree of approximation to a uniform wave-conductor, sub-stantially as described. (4.) In a system of electrical-wave transmission, a non-uniform wave-conductor consisting of a uniform conductor and inductance-coils in series in it at near of our province points, the inductance resistance and periodically recurring points, the inductance, resistance, and capacity of the interposed inductance-coils being adjusted capacity of the interposed inductance-cons being adjusted in such a way as to give, with the inductance, resistance, and capacity of the uniform conductor, a predetermined in-ductance, resistance, and capacity per unit-length, and the distance between the interposed coils being adjusted in such a way as to equal a fractional part of one-half of the shortest wave-length which is to be transmitted, substantially as described (5) in a system of wave conductors the nomdescribed. (5.) In a system of wave conductors, the com-bination of a telephonic transmitter and a telephonic re-ceiver, a non-uniform wave-conductor consisting of uniform conductor and inductance-coils in series therein at periodically recurring points, the inductance, resistance, and capacity of the interposed inductance coils being adjusted in such a of the interposed inductance coils being adjusted in such a way as to give to the resulting conductor a predetermined in-ductance, resistance, and capacity per unit-length, and the distance between the interposed coils being adjusted in such a way as to be equal to a fractional part of one-half of the wave-length corresponding to the highest frequency essential to the transmission of speech, substantially as described. (6.) A wave-conductor consisting of a uniform conductor and (6.) A wave-conductor consisting of a uniform conductor and inductance sources interposed in series therein at periodically recurring points, substantially as described. (7.) A wave-con-ductor consisting of a uniform conductor having inductance-coils interposed therein in series at uniformly recurring points, substantially as described. (8.) In a system of electrical-wave transmission, a non-uniform wave-conductor consisting of a uniform conductor and inductance-coils in series with it at periodically recurring points, inductance resistance and uniform conductor and inductance-coils in series with it at periodically recurring points, the inductance, resistance, and capacity of the interposed inductance-coils being adjusted in such a way as to give with the inductance, resistance, and capacity of the uniform conductor a predetermined induct-ance, resistance, and capacity per unit-length, which is fixed by the required value of the attenuation-constant, and the distance between the interposed coils being adjusted in such a way as to be equal approximately to one-sixteenth part of the shortest wave-length which is to be transmitted, rendering thus the non-uniform conductor approximately equivalent to its corresponding uniform conductor, the degree of approximation being such that for the highest frequency which is to be employed and for all lower frequencies the wave length and the attenuation-constant on the non-uniform conductor will differ by less than 1 per cent. from the wave-length and the attenuation-constant on the corresponding uniform conductor. uniform conductor. (Specification, £1 11s.; drawings, 2s.)

No. 13412 — 16th February, 1901. — FREDERICK PAGE WOOD, of Auckland, New Zealand, Gunmaker. An im - FREDERICK PAGE proved indestructible tire.

Claim.—The adaptation of a tire, preferably of steel, of a tube-like construction, so that the upper portion may engage or interlock a bead or roll projection in the groove or bead

on the wheel or lower portion, and by the action of spring kept in position: the whole or part may be in segments or entire, and the same principle be made applicable to wheels of vehicles of all descriptions, as substantially set forth in drawings and specifications. (Specification, 2s.; drawings, 1s.)

No. 13414. — 14th February, 1901. — WILLIAM ERNEST RICHARDSON, of Outram, Otago, New Zealand, Miller. An automatic brake for steep grades.

Extract from Specification .- The object of the invention is to automatically apply brakes to any vehicle in the event of its speed or rate of travel exceeding a rate or speed previously decided upon. The invention consists of brake-blocks, which can be applied automatically to the wheels of a vehicle, in such a manner that the wheels will be lifted off the track or rails, and the weight of the vehicle thrown on the brakeblocks. The automatic application of the brake is accom-plished by means of an ordinary governor, such as is used for the regulation of steam and other engines, and consisting of weights attached to the axle or other revolving shaft in such a manner that the weights are free to fly out from the shaft as the speed increases.

Claim .- The combination and arrangement of parts for the purpose of securing the automatic application of the brake blocks in case of the speed of the car or other vehicle exceeding a fixed maximum, substantially as described. (Specification, 2s.; drawings, 1s.)

No. 13416.—20th February, 1901.—JOSEPH HALL, of the Burley Engine-works, Leeds, York, England, Engineer. Improvements in machinery for registering, measuring, counting, and weighing material.

Claims.-(1.) An arrangement substantially as shown and described, that will measure and record same on to a tape or any other material, substantially as described. (2.) A machine that will record the number of articles that pass through same, substantially as described. (3.) A machine that will print, emboss, or otherwise mark the material passing through the machine, substantially as described. (Specification, 4s. 6d.; drawings, 3s.)

No. 13417.—20th February, 1901.—JESSE HERBERT, of Hawkhurst, Opaki, Masterton, New Zealand, Farmer. An attachment to ploughs for removing obstructions from the path of the land-wheel.

Claim.-An attachment to ploughs, consisting of a bar the lower end of which is formed into a deflector-blade, such deflector-blade being secured in position upon the plough a short distance immediately in front of the land-wheel of the plough, as and for the purposes set forth. (Specification, 1s. 6d.; drawings, 1s.)

No. 13418.—20th February, 1901.—ROBERT OXLADE, of 177, George Street, Redforn, near Sydney, New South Wales, E'ectrical Eugineer, and WILLIAM JOSEPH WHITE RICHARD-SON, of 114, Annandale, near Sydney aforesaid, Clerk. Improvements in audible electric telegraphy.

Claims.—(1.) An improved system of electric telegraphy in which signals caused by the breaking of a closed primary local circuit are transmitted to a telephone by an induced ourrent flowing through the line-circuit, substantially as described and explained. (2.) In electric telegraphy, trans-mitting signals to a telephone by means of an induced current between stations by the arbitrary breaking of the primary current of a transformer, from which such induced primary current of a transformer, from which such induced current is derived, substantially as described and explained. (3.) In electric telegraphy, interposing a transformer between a sending key for opening a closed circuit at one station and a telephone receiver at the other, so as to transmit signals between such stations by a secondary or induced current in the line-wire, substantially as described and explained. (4.) In electric telegraphy, having an induced current in the line-wire conveying signals caused by the breaking or opening of a closed local primary circuit, and devices for short-circuiting the secondary coils of a trans-former, for inducing said current in the line-wire, sub-stantially as described and explained. (5.) The combination and arrangement with the line-wire of an audible electric-telegraph system, carrying an induced current of battery such as E1 and E3 and contact such as E2, a transformer or induction-coil such as B, a switch such as C having lever such as Cx and contacts such as C1, C2, C3, and C4, and a telephone-receiver such as A with or without a resonator, substantially as described and explained, and as illustrated in the drawing. (Specification Sector drawings 1s) current is derived, substantially as described and explained. in the drawing.

(Specification, 8s.; drawings, 1s.)

No. 13420.—20th February, 1901.—JAMES LUKE CURLINE, of Dunedin, New Zealand, Tinsmith. A shot-making machine.

chine. Claims.—(1.) In shot-making machinery, in combination, a wheel A, revolving on a suitable shaft A<sup>1</sup>, fitted with grooves to suit the required size of shot, with bands or a band C-shaped, fitted with corresponding grooves either deeper at the feeding-part or of equal depth, any of the grooves being roughened if required for rolling and forming cubes of lead or composition into balls from the cubes as cut from the sheet, all substantially as described and as explained, and as illustrated in the drawing. (2.) In com-bination, a revolving grooved wheel A, with a fixed grooved band B, or a number B<sup>5</sup> of such bands for rolling lead cubes into balls or shot, substantially as described, and for the purposes as set forth and as illustrated in the drawing. (Specification, 2s. 3d.; drawings, 1s.)

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

No. 13421.—21st February, 1901.—HENRY GLADE, of 4, Delbridge Street, North Fitzroy, Victoria, Mechanical Draughtsman. A new or improved velocipede or road-skate.

Claims.—(1.) A velocipede comprising two wheels, a frame supported by the wheels, the back or steering-wheel being set with its axle free to rotate and slide in bearing-slots formed in the frame, a foot-plate supported by springs from the frame, a crank operated by the rise and fall of foot-plate, the frame, a crank operated by the rise and fall of foot-plate, a sprocket wheel or the like on the crank-spindle, and means of communicating motion from the sprocket-wheel or like to the driving-wheel of velocipede, substantially as set forth. (2.) A velocipede comprising two wheels, a frame forming bearings for said wheels, the back or steering-wheel being set with its axle free to rotate and slide in bearing-slots in the frame, upright rods mounted on the frame, foot plate carrying sleeves encircling the upright rods, spiral springs encircling the rods and sleeves and supporting the foot-plate to the driving-wheel of velocipede, substantially as set plate to the driving-wheel of velocipede, substantially as set forth. (3.) A velocipede comprising two wheels, a frame forming bearings for said wheels, the back or steering-wheel being set with its axle free to rotate and slide in bearing-slots in the frame, upright rods mounted on the frame, footplate carrying sleeves encircling the upright rods, rollers set within the sleeves impinging on the rods, spiral springs within the sheeves impinging on the road, spiral springs encircling the rods and sleeves and supporting the foot-plate, and means of communicating motion from the foot-plate to the driving-wheel of velocipede, substantially as set forth. (4.) A velocipede comprising two wheels, a frame forming bearings for said wheels, the back or steering-wheel being set with its axle free to rotate and slide in bearing-slets in the frame, unright rods mounted on the frame foot forming beærings for said wheels, the back or steering-wheel being set with its axle free to rotate and slide in bearing-slots in the frame, upright rods mounted on the frame, foot-plate carrying sleeves encircling the upright rods, rollers set within the sleeves impinging on the rods, spiral springs encircling the rods and sleeves, and supporting the foot-plate, a cross-plate connecting the top of the forward uprights, means upon said cross-plate for obtaining a hand-pull upon the velocipede, and means of com-municating motion from the foot-plate to the driving-wheel of velocipede, substantially as set forth. (5.) A velocipede comprising a driving-wheel having ordinary bearings in frame, a steering-wheel set with its axle free to rotate and slide in bearing-slots in the frame, uprights sup-ported by frame, foot-plates having sleeves with internal rollers encircling the uprights, spiral springs encircling up-rights and sleeves and supporting foot-plate, rod articulated to foot-plate and connected to crank, spindle carrying crank and sprocket-wheel, sprocket-wheel on driving-wheel axle, endless chain between the two sprocket-wheels, and means connected with the velocipede for holding same securely in position against shoe of operator, substantially as set forth. (6.) A velocipede comprising two wheels, a frame forming bearings for said wheel, the axle of back or steering-wheel being provided with boxes with curved discs, said axle being set with the boxes free to slide in bearing-slots formed in the frame and with the discs forming limiting stops, upright rods mounted on the frame, foot-plate to the driving-wheel being motion from the foot-plate to the driving-wheel of velocipede, substantially as set forth. (7.) A velocipede comprising a driving-wheel having ordinary bearings in frame, a steering-wheel having ordinary bearings in frame, a steering-whe rights, spiral springs encircling unights and sleeves and supporting foot-plate, said sleeves and springs being enclosed in flexible protecting material, rod articulated to foot-plate and connected to cushion crank, spindle carrying crank and sprocket-wheel, sprocket-wheel on driving-wheel axle, endless chain between the two sprocket-wheels, and adjustable toe-and heel-clips and leg-strap connected with the velocipede

for holding same securely in position against shoe and leg of operator, substantially as set forth. (8.) The combination and arrangement of the several parts for the purposes de-scribed, and as illustrated on the drawings. (Specification, 8s. 6d.; drawings, 3s.)

No. 13422. - 21st February, 1901.-GOLDEN LINK CON-Solidated Gold-Mines (Limited), 1901. Golden Link Con-solidated Gold-Mines (Limited), of 20 and 21, Lawrence Lane, Cheapside, London, England (assignees of Henry Joshua Phillips, of 123, Palace Chambers, Westminster, England, Fellow of the Institute of Chemistry). Improvements in or relating to the extraction of precious metals from certain of their ores.

Claims.-(1.) The described method of extracting precious metals from refractory or rebellious ores of the character speci-fied, which consists in subjecting the powdered ore to the action of a weak (say 0.5 to 3 per cent.) solution of alkaline polysul-phides, the amount of polysulphide employed being insufficient to dissolve the gold itself, but proportioned as described so that it will dissolve the elements combined with the gold with-out dissolving the gold metropy the lattering discounted and that it will dissolve the elements combined with the gold with-out dissolving the gold, whereby the latter is dissociated, and can then be recovered by the well-known oyaniding or other suitable process for recovering free gold. (2.) The described method of extracting precious metals from refractory or re-bellious ores of the character specified, which consists in sub-jecting the powdered ore, under heat and pressure, to the action of a weak (say 0.5 to 3 per cent.) solution of alkaline polysulphides, the amount of polysulphides employed being insufficient to dissolve the gold itself, but proportioned as described, so that it will dissolve the elements combined with the gold without dissolving the gold, whereby the latter is disthe gold without dissolving the gold, whereby the latter is dis-sociated, and can then be recovered by the well-known ora-niding or other suitable process for recovering free gold. (3.) The described method of extracting precious metals from refractory sulphide or telluride ores without roasting, (3.) The described method of extracting precious metais from refractory sulphide or telluride ores without roasting, which consists in subjecting the ore in the form of a powder, and without roasting, to the action of alkaline polysulphides in solution of such weakness and so proportioned that same will have a selective action — namely, will dissolve the ele-ments which are combined with the gold and for which the polysulphides have a greater affinity than for gold, without dissolving the gold itself, which latter is thus dissociated, and can then be recovered by any known suitable process for re-covering free gold, substantially as set forth. (4.) The de-scribed method of extracting precious metals from refractory sulphide or telluride ores without roasting, which consists in subjecting the ore without roasting and in the form of a powder, under heat and pressure, to the action of alkaline polysulphides in solution of such weakness and so propor-tioned that same will have a selective action — namely, will dissolve the elements which are combined with the gold and for which the polysulphides have a greater affinity than for gold, without dissolving the gold itself, which latter is thus dissociated, and can then be recovered by any known suitable process for recovering free gold, substantially as set forth. (Specification, 6s.)

(Specification, 6s.)

No. 13435.—1st March, 1901.—John Anschau, of Glen Innes, New South Wales, Postmaster. An improved sealed buckle.

Claims.—(1.) In a sealing-buckle for use on mail-bags, despatch-boxes, and the like, a seal made of cardboard or other similar material provided with a metal strip adapted to engage a corresponding catch on the frame of the buckle, substantially as described and as illustrated. (2.) In a buckle-seal, the combination of a strip of cardboard or other similar material with a metal strip adapted to engage a corre-sponding catch on the frame of the buckle, substantially as described, and as illustrated in the drawings. (3.) A sealing-buckle internally slotted and provided with a suitable catch to receive and retain a cardboard seal provided with metal-spring attachment to engage the said catch, substantially as described, and as illustrated in the drawings. (4.) The combination of a sealing-buckle internally slotted and pro-vided with a suitable catch, with a seal made of cardboard or other suitable material provided with a metal strip adapted to engage the aforesaid catch, substantially as described and as illustrated. (Specification, 3s. 8d.; drawings, 1s.)

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

No. 13437 .- 1st March, 1901 .- ALFRED GEORGE JACKSON, of George Street, Brisbane, Queensland, Electrician. An improved attachment for bicycles for securing thereto rifles, sporting-guns, and other articles.

Claim.--In an improved attachment for bicycles for securing thereto rifles, sporting guns, and other articles, the combination of a metal band such as A, with link such as B, eccentric chock such as C, clips such as D and E, as de-scribed, and illustrated by drawings. (Specification, 1s. 6d.; drawings, 1s.)

No. 13438.—28th February, 1901.—ERNEST APPLETON, of Hokitika, New Zealand, Boring and Prospecting Expert. Improved method of and means for removing obstructions met with when boring for prospecting purposes.

Claims.--(1.) The described improved method of removing Claims.-(1.) The described improved method of removing obstructions met with when boring for prospecting purposes, consisting in the employment of dynamite and fuse attached to a suitable rod lowered within a temporary tube inside the main boring-pipe, said temporary tube and boring-pipe being withdrawn a suitable distance out of the way when the charge is exploded, substantially as described, and illustrated in the drawings. (2.) In appliances for boring for prospect-ing purposes, the employment of a temporary tube B lowered within the main boring-rine A within which tube a rod C. within the main boring-pipe A, within which tube a rod C, with fuse and dynamite attached, may be lowered on to the obstacle to be removed, substantially as set forth. (Specification, 2s.; drawings, 1s.)

#### F. WALDEGRAVE Registrar.

Note.—The cost of transcribing the specification, and an estimate of the amount required for copying the drawings, have been inserted after the notice of each application. An order for a copy or copies should be accompanied by a post-office order or postal notes for the cost of copying. An asterisk (\*) denotes the complete specification of an in-vention for which a provisional specification has been already

lodged.

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

#### Provisional Specifications.

#### Patent Office.

Wellington, 6th March, 1901. A PPLICATIONS for Letters Patent, with provisional specifications, have been accepted as under:--

No. 13356.—30th January, 1901.—DONALD WOOD MACKAY, Sawmiller, and ALEXANDER HUTTON, Engineer, both of Ma-taura, New Zealand. Improvements in spark-arresters and the like.

No. 13368. — 5th February, 1901. — MALCOLM DANIEL MCLEOD, of General Post Office, Wellington, New Zealand (nominee of Hector Norman McLeod, of Wellington afore-

unminee of Hector Norman McLeod, of Weilington afore-said, Clerk). Improved dredging apparatus. No. 13995.—13th February, 1901.— ROBERT BENJAMIN WILLIAMS, of 12, Havelock Street, St. Kilda, Victoria, Engineer. An improved method and means for coastal, sea, and other dredging.

and other areaging. No. 13398.—13th February, 1901.—PETER POWER JOSEPH CLINTON, of Nelligen, New South Wales, Shipping Agent. Improvements in brakes for two-wheeled vehicles. No. 13400. — 13th February, 1901. — JOSEPH GAUT, of 63, Renwick Street, Leichhardt, Sydney, New South Wales, Artist Improvements in firearms

Artist. Improvements in frearms. No. 13401. — 13th February, 1901. — JOSEPH GAUT, of 63, Renwick Street, Leichhardt, Sydney, New South Wales, Artist. Improvements in small arms. of

No. 13413.—15th February, 1901.—WALTER SCARF, Black-smith, and THOMAS EDWARD TAYLOR, Auctioneer, both of Christohurch, New Zealand. A soythe-brace for bracing a

soythe blade to the scythe handle. No. 13415.—18th February, 1901.—JOHN MONTGOMERY, of Wellington, New Zealand, Commercial Traveller. Improvements in railways.

Ments in railways. No. 18423.—21st February, 1901. — WILLIAM MATTHEW MCILWRICK, of 436, Chancery Lane, Melbourne, Victoria, Barrister and Solicitor. Improvements in and relating to export crates for rabbits and similar animals. No. 18425.—22nd February, 1901.—WALTER PECK, of Dunedin, New Zealand, Engineer. Centrifugal tailings-elevator.

elevator.

elevator. No. 13427. — 26th February, 1901. — FRANK MARRYAT NORRIS, of Hunterville, New Zealand, Settler. A bottle insuring the genuineness of its initial contents. No. 13431. — 27th February, 1901. — WILLIAM MUNRO WHISHAW, of Palmerston North, New Zealand, Farmer. An improved saucepan. No. 13432.—26th February, 1901.—FRANK KETTLE, of High Street, Roslyn, New Zealand, Wool-buyer. Im-provements in machines for scouring wool or other fibres. No. 13433.—1st March, 1901.—WALTER EDWIN DOUGLAS, of Bloomfield Square, Gunnedah, New South Wales, Car-penter, and THOMAS GEORGE GREEDY, of Barber Street, Gunnedah aforesaid, Blacksmith. An improved combined hand-barrow or truck and elevator.

hand-barrow or truck and elevator.

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No. 13434.—1st March, 1901.—HENRY EVANS, of Narrawa, New South Wales, Miner. An improved gold-saving appliance.

#### 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 21st February. 1901, to the 6th March, 1901, inclusive:

1901, to the 6th March, 1901, inclusive :-No. 11930.-A. E. King, rabbit-trap.
No. 12082.-W. M. Ashton, sheep-holder.
No. 12083.-W. N. E. Mason and J. Wright, milk-jug.
No. 12153.-J. C. Fraser, recovering gold.
No. 12163.-W. H. Cutten, dredge-bucket.
No. 12163.-W. H. Cutten, dredge-bucket.
No. 12180.-C. Tandy, horse-shoe.
No. 12234.-J. M. Taylor and H. Oakley, closet-cistern.
No. 12414.-B. Kershaw, meat-covering fabric.
No. 12415.-T. Burrell, tire.
No. 12437.-W. Healev, slop-bucket and commode.

- No. 12413.—W. Healey, slop-bucket and commode. No. 12492.—W. Chapman, electric railway.

No. 12492.-W. Chapman, electric railway.
No. 12632.-E. R. Hill, electro pneumatic controller.
No. 12717.-H. Rose and W. Hockin, automatic wheel.
No. 12722.-The New Taite Howard Pneumatic Tool Company, Limited, pneumatic hammer (J. Boyer).
No. 12787.-J. and J. Rapson, wire-strainer.
No. 12849.-J. S. Morton, pump.
No. 12884.-The British Westinghouse Electric and Manufecturing Company. Limited. electric railway (R. C. Par-Isosa (Conserved)
 Isosa (Conserved)<

No. 13033,---D. Marks, apparatus for creating difference wash (R. Gregory).
No. 13060.--F. G. Hughes, bandolier (J. Hylard).
No. 13061.--Electric Lighting Boards, Limited, electric-lamp conductors (J. A. Halford).
No. 13062.--W. J. Linton, air-compressor.
No. 13063.--A. Tropenas, manufacturing steel.
No. 13064.--J. Darling window for railway-carriages, &c.

- No. 13064.-J. Darling, window for railway-carriages, &c. No. 13070.-J. Quinn, J. H. Turland, and W. G. Archer, sen., harvester. No. 13073. — A. F. Thompson, sealing-buckle for mail-

No. 13094.—F. W. Bright, cooling and rinsing cans of cooked food.

-Hon. W. Rothschild, G. D. Smith, and J. A. No. 13095.-Wilding, ammunition-box. No. 13097.— Marconi's Wireless Telegraph Company, Li-

mited, electrical receiver (G. Marconi).

No. 13098.—A. S. Hartrick, boot-sole. No. 13099.—J. H. Lee, treating ores. No. 13100. — The British Westinghouse Electric and

Manufacturing Company, Limited, electric-conductor sup-port (G. Wright and C. Aalborg). No. 13101. — The British Westinghouse Electric and Manufacturing Company, Limited, protecting electrical apparatus (P. H. Thomas). No. 13102. — The British Westinghouse Electric and Manufacturing Company, Limited induction motor (B. G.

Manufacturing Company, Limited, induction motor (B. G.

Manufacturing Company, Limited, induction motor (B. G. Lamme).
No. 13103. — The British Westinghouse Electric and Manufacturing Company, Limited, electric distribution (N. W. Storer).
No. 13120. — W. Anderson, sheep-truck.
No. 13121. — J. H. Cooke and J. S. H. Hammond, tire.
No. 13123. — W. Bradley, acetylene-generator.
No. 13124. — C. Stanley, air-ship.
No. 13128. — C. Pritohard and H. Smith, draught-excluder for door.

for door No. 13141.-S. R. Bellingham, D. Fell, and N. P. Richards,

container No. 13142.-W. L. Corson, exhaust mechanism for ex-

plosive engine.

No. 13143.-J. Woodhead, oramp. No. 13156.-F. Gale and J. Hemphill, ploughing and

sowing. No. 13159.—J. E. Thornton and C. F. S. Rothwell, photographic film.

No. 13160.—H. F. Kirkpatrick-Picard, treating ores. No. 13161.—C. E. Manton and J. W. Rayfield, smelting process

No. 13162.-J. Aitken, pump. No. 13165.-A. C. and L. S. Andersen, producing airpressure in tires.

No. 13181.-The Spink Liquor Company, treating liquors

(E. A. Spink).
No. 13182.—E. Waters, jun., semaphore (F. L. Dodgson).
No. 13192.—The Ampere Electro Chemical Company, producing camphor (N. Thurlow).
No. 13196.—J. C. Clancy and L. W. Marsland, treating

ores.

F. WALDEGRAVE, Registrar.

#### Letters Patent on which Fees have been paid.

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

No. 9394.--M. Scott, filter. 23rd February, 1901. No. 9344.--W. Madder, E. M. Fleming, and G. W. Basley, vehicle-brake. 12th February, 1901. No. 9394.--A. H. Brownley, door-check. 13th February, 1901

1901. No. 9402.—A. Etard, treating gold. 27th February, 1901.
No. 9419.—D. Cameron, F. J. Commin, and A. J. Martin, treating sewage. 21st February, 1901.
No. 9420.—D. Cameron, F. J. Commin, and A. J. Martin,

treating sewage. 21st February, 1901. No. 9541.—A. C. Crehore and G. O. Squier, electric-current controller. 28th February, 1901.

No. 11909.—G. Woolbouse, feed-regulator for gold-saving bles. 4th March, 1901. tables.

THIRD-TERM FEES.

Nil.

F. WALDEGRAVE,

Registrar.

Subsequent Proprietors of Letters Patent registered.

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

N O. 11609. - The Snowflake Refrigerator Company, Limited, whose registered office is situate at No. 38, Pirie Chambers, Pirie Street, Adelaide, South Australia, refrigerator. [J. J. Drage and E. T. Bridgland.] 27th

Pirie Unamous, and F. T. Bridghaud, and F. T. Bridghaud, and February, 1901.
No. 11892.—John Manson, of Grey Lynn, Auckland, New Zealand, Builder, setting out rails, &c., for windows, &c.
[G. H. and D. Little.] 1st March, 1901.
F. WALDEGRAVE, Registrar.

Registrar.

Applications for Letters Patent abandoned.

LIST of applications for Letters Patent (with which provisional specifications only have been lodged) aban-doned from the 21st February, 1901, to the 6th March, 1901, inclusive:

301, inclusive:—
No. 12558.—J. D. P. Morgan, making charcoal.
No. 12559.—G. S. Pearson, wire-strainer.
No. 12564.—W. J. Venables, bicycle-muff.
No. 12566.—C. Bristow, can.
No. 12568\*.—B. J. F. Bentley, fork cleaner and polisher.
No. 12569.—G. E. Adlard, apple-core extractor.
No. 12570.—J. Hutchinson, preventing "racing" of

steamer screws.

eamer sorews. No. 12571.--R. Brown, drain-pipe socket. No. 12573.--S. S. Sörensen, golf club. No. 12581.--A. J. Park, gold-dredge. No. 12582.--A. Anderson, W. Ross, and H. Walton, goldsaving mat.

\* Omitted from last Gazette.

F. WALDEGRAVE, Registrar.

#### Applications for Letters Patent lapsed.

IST of applications for Letters Patent (with which com-IST of applications for Letters Fatent (with which com-plete specifications have been lodged) lapsed from the 21st February, 1901, to the 6th March, 1901, inclusive :-No. 11923.-G. Hansen, propeller steering apparatus. No. 11937.-A. Taylor, tin opener. No. 11942.-A. Potter, mustard-cup. No. 11945.-D. Whitburn, fruit and vegetable cutter and

grater. No. 11968.-H. August and R. C. Miller, prospecting implement.

F. WALDEGRAVE, Registrar.

#### Letters Patent void.

IST of Letters Patent void through non-payment of fees from the 21st February, 1901, to the 6th March, 1 1901, inclusive :-

THBOUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 9066.—W. B. Parsons, cyclists' valise. No. 9067.—R. Taylor, concentrator and amalgamator. No. 9068.—J. Gaut, photographic race recording and

No. 9068.—J. Gaut, photographic race recording and timing apparatus.
No. 9070.—J. C. Naismith, seed-sower.
No. 9072.—H. Morrison, chain driving wheel.
No. 9073.—H. Morrison, vehicle-brake.
No. 9075.—J. E. Friend, steam boiler.
No. 9077.—W. Chalmers, lime-spreader.
No. 9077.—W. Chalmers, lime-spreader.
No. 9077.—W. Chalmers, line-spreader.
No. 9085.—J. Henderson, breeching.
No. 9085.—J. Henderson, breeching.
No. 9085.—J. Henderson, breeching.
No. 9089.—A. W. Goyder, ore-feeder shoot.
No. 9090.—Schroeder's Ball-bearing Company, Limited, ball-bearing (F. W. Schroeder).
No. 9091.—J. A. Walker, sprocket-wheel for cycle.
No. 9093.—R. W. Wyett, tire.
No. 9093.—R. W. Wyett, tire.
No. 9097.—J. Richardson, attachment to scarifiers.
No. 9097.—J. Manttan, venetian-blind lath.
No. 9105.—H. Gibson, branding-composition.

No. 9105.—H. Gibson, branding-composition.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

No. 6556.-H. de C. Hudson, medical belt (H. J. Purbrook). No. 6559.—G. Eastwood, stereotype-mould. No. 6560.—C. C. Lance, milk strainer and sampler.

F. WALDEGRAVE, Registrar.

#### Applications for Registration of Trade Marks.

Patent Office,

Wellington, 6th March, 1901. PPLICATIONS for registration of the following trade A marks have been received. Notice of opposition to the registration of any of these applications may be lodged at this office within two months of the date of this Gazette. Such notice must be in duplicate, and accompanied by a fee of £1.

No. of application : 3305. Date: 20th February, 1901.

The word

TRADE MARK.

**ULSINE** 

#### NAME.

VACUUM OLL COMPANY, incorporated under the laws of the State of New York, having its principal office at Rochester, New York, United States of America; 47, Victoria Street, Westminster, London, England; 21, Queen Street, Mel-bourne, Victoria; Colonial Mutual Chambers, Wellington, New Zealand; Oil and Grease Manufacturers.

#### No. of class: 4.

Description of goods: Oils, dyes, tanning substances, and fat-liquor preparations for use in chrome and other tannage.

MAR. 7.]

No. of application : 3307. Date : 21st February, 1901.

The word

## STOGIE

TRADE MARK.

NAME.

FEBNAND LEVIC (trading as Frossard, Levic, and Co.), of York Street, Sydney, New South Wales, Importer.

No. of class: 45. Description of goods: Cigars, cigarettes, and tobacco. No. of application : 3310. Date : 22nd February, 1901.

The word

TRADE MARK.

## STARLIGHT.

NAME.

LEVER BROTHERS, LIMITED, of Balmain, near Sydney, New South Wales, Soap-manufacturers.

No. of class: 48. Description of goods: Perfumed soap.

No. of application: 3312.

No. of application : 3308. Date : 21st February, 1901.

#### TRADE MARK.



The essential particulars of this trade mark are the words "Bull Dog," the figure of a bull-dog, and the fac-simile of the signature "Root. Porter & Co."; and any right to the exclusive use of the added matter is disclaimed.

NAME. ROBERT PORTER AND Co., LIMITED, of 39 to 47, Pancras Road, N.W., London, England.

No. of class: 44. Description of goods: Mineral and aerated waters, natural and artificial, including ginger-beer.

No. of application : 3309. Date: 22nd February, 1901.

The word

TRADE MARK.

### STARLIGHT.

NAME. LEVER BROTHERS, LIMITED, of Balmain, near Sydney, New South Wales, Soap-manufacturers.

No. of class: 47. Description of goods: Laundry soap. Date : 27th February, 1901. TRADE MARK. OETZES & GERRITSEN LONDON NICOLL BROS ASHBURTON

NAME.

NICOLL BROTHERS AND OETZES AND GERRITSEN, of Ashburton, Canterbury, New Zealand, and London, England, Produce Merchants.

No. of class: 42. Description of goods: Frozen mutton.

No. of application : 3316. Date: 4th March, 1901.

The word

TRADE MARK.

## KHAKI.

NAME. MARIA WALKER, of 72, Leith Street, Dunedin, New Zealand.

No. of class: 47. Description of goods: A rapid linen-glaze.

> F. WALDEGRAVE, Registrar.

#### Trade Marks registered.

L IST of Trade Marks registered from the 21st February, 1901, to the 6th March, 1901, inclusive :--

1901, to the 6th March, 1901, inclusive :-No. 2545; 2957.-C. and R. McLeod; Class 47. (Gazette
No. 2546; 3246.-Adams Star Cycle Company; Class 22. (Gazette No. 105, of the 20th December, 1900.)
No. 2547; 3101.-W. Scoular and Co.; Class 42. (Gazette
No. 77, of the 36th August, 1900.)
No. 2548; 3237.-Veuve Pommery, Fils, and Co.; Class 43. (Gazette No. 105, of the 20th December, 1900.)
No. 2549; 3239.-Vinolia Company, Limited; Class 47. (Gazette No. 105, of the 20th December, 1900.)
No. 2550; 3241.-A. Usher and Co.; Class 43. (Gazette
No. 105, of the 20th December, 1900.)
No. 2551; 3244.-W. T. Glover and Co., Limited; Class 50. (Gazette No. 105, of the 20th December, 1900.)

No. 2552; 3249.—The American Tobacco Company of New Zealand, Limited; Class 45. (*Gazette* No. 105, of the 20th December, 1900.) No. 2553; 3250.—J. Nathan and Co., Limited; Class 42. (*Gazette* No. 105, of the 20th December, 1900.)

F. WALDEGRAVE,

Registrar.

#### Entry of Trade Mark on Register cancelled.

O. 1498/1185.—J. Schischka. (Advertised in Supple-ment to New Zealand Gazette, No. 67, of the 5th N September, 1895.) F. WALDEGRAVE,

Registrar.

By Authority: JOHN MACKAY Government Printer, Wellington.