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CONTENTS.

Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 22nd July, 1902.

COMPLETE specifications relating to the undermentioned 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. 14015.—19th September, 1901.—ARTHUR CONSTANT AUCHER, late of McDonnell Street, Toowong, now of Bank Street, South Brisbane, Queensland, Bachelor of Arts. An improved burner and mantle for incandescent gas lighting.*

Claims.—(1.) An improved burner for use in incandescent gas lighting, consisting of a gas-inlet such as A, open basket such as B, adjusting screw or sleeve such as C, tube such as D, gauze cap E, and tapered sleeves such as F and H, substantially as described and explained, and as illustrated. (2.) An improved metallic mantle for incandescent gas lighting, or as an automatic igniter, consisting of a woven tissue composed of an alloy of polinium with molybdenum, tungsten, and antimony, or with one of the rare metals. (3.) An automatic igniter of gas, consisting of a refractory material, such as asbestos, plaster-of-paris, and animal black, impregnated with a solution of polinium, substantially as described. (4.) The combination with a burner such as that claimed in claim 1 with a mantle or igniter such as that claimed in claim 2, substantially as described.

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

No. 14036.—4th April, 1901.—WILLIAM GEORGE GIBBINS, of Argyll House, Kirkdale Road, Leytonstone, Essex, England, Furrier. Improvements in washing-machines.*

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

Claims.—(1.) A washing-machine of the kind referred to constructed with a partition which conforms more or less closely to one side of the oscillating vessel in which it is pivoted, so that goods placed between the partition and the other side of the vessel are allowed greater freedom whilst being turned by the oscillation of the vessel and the consequent movement of the cleansing-liquid, substantially as described. (2.) A washing-machine of the kind constructed with a partition and means whereby said partition is caused to oscillate with the vessel in which it is mounted during one oscillation, or two or more consecutive oscillations, thereof, and is given a tendency to maintain an upright attitude, or to oscillate reversely to the vessel during the next oscillation of the vessel, and so on, so as to squeeze the goods only once during two or other given greater number of complete oscillations of the vessel, substantially as described. (3.) A washing-machine constructed, arranged, and operating substantially as described with reference to and illustrated in the drawings.

(Specification, 5s.; drawings, 4s.)

No. 14123.—10th October, 1901.—ADAM JONES, of Queen Street, Onehunga, New Zealand, Builder. An improved combined verandah-roof, window-shutter, and sunshade.*

Extract from Specification.—The method of constructing my improved combined verandah-roof, window shutter, and sunshade is as follows: Strips of metal—say, galvanised iron—the length of the width of the window (hereinafter called "laths") and, say, 7 in. wide are provided, and the sides are throughout their length curved into circles of, say, ¾ in. in diameter, the upper edge being curved upwards as shown at F and the lower edge being curved downwards as shown at

F[1] in Fig. 5 The lower or downward curve is then slipped over the upper or upward curve in such a manner that a hinged joint is formed. A sufficient number of laths are joined together in this manner to provide the length required for the shutter. The spindle I is passed through the hollow tube formed by the curves and riveted to the inner and upward curve of the lath. The links G are provided to carry the weight of the shutter and prevent strain being applied to the curves of the laths, which would be liable to straighten out if such support were not provided. These links work freely upon the spindle I between the ends of the laths K and the rollers E. The mechanism for raising or lowering the shutter consists of the lifting-wheel W, having upon its periphery indentations R which engage the ends of the spindles I shown at O, Fig. 2. As the wheel W revolves the indentations R engage the spindles and lift them one by one and pass the shutter along the guides provided for the purpose, namely, the grooves or channels D in the rafter A along which the rollers E travel. The endless sprocket chain L conveys the power applied by any suitable device to the sprocket wheel M attached to or forming a part of the lifting-wheel W. A suitable device for applying or providing the power to lift the shutter is a bevel gearing operated by a crank. The act of raising the shutter causes it to assume the function of a verandah-roof. Reversing the action reverses the position and turns the verandah-roof into a window-shutter. If desired the verandah may be half-roofed and the upper part of the window covered at the same time.

Claim.—The combination of the several parts and devices described in this specification, the whole forming a combined verandah-roof, window-shutter, and sunshade, substantially as described and illustrated.

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

No. 14160.—24th October, 1901.—EDWIN PHILLIPS, of 533, Collins Street, Melbourne, Victoria, Australia, Certified Patent Agent (nominee of Everard Steele, residing at Mill Valley, Marin, California, United States of America, Manufacturer of Explosives). Explosives, and the methods of making the same.

Claims.—(1.) An explosive consisting of a mechanical mixture of nitrated phthalic acid and an oxidizing agent, substantially as described. (2.) An explosive comprising nitrated phthalic acid and chlorate of potash, substantially in the proportions specified. (3.) An explosive consisting of grains each of which comprise a main-body portion and a complete coating, said body portion consisting exclusively of chlorate of potash and said coating consisting exclusively of an ingredient reacting explosively with the chlorate of potash, said ingredient being insoluble in water but soluble in a volatile liquid, whereby the grains of chlorate of potash are entirely protected from the action of moisture by a hardened coating of the ingredient, substantially as described. (4.) An explosive consisting of grains each of which comprises a body portion consisting exclusively of an oxidizing agent, and a complete coating consisting exclusively of an ingredient reacting explosively with the oxidizing agent, and insoluble in water but soluble in a volatile liquid, so forming a hardened coating around the grains of the oxidizing agent, substantially as described. (5.) An explosive consisting of grains each comprising a body portion and a complete coating, the body portion consisting exclusively of one ingredient and the coating exclusively of the other ingredient, said ingredients reacting chemically with violence, the latter being insoluble in water but soluble in a volatile liquid, substantially as described. (6.) A process of making an explosive, consisting of two ingredients which react chemically with violence, one of said ingredients being a substance insoluble in water but soluble in a volatile liquid, which consists in forming the other ingredient into grains or small particles, dissolving in a volatile liquid the ingredient which is insoluble in water, coating the particles of the other ingredient with the latter ingredient so dissolved, and then evaporating the volatile liquid to leave a hardened coating of the latter ingredient on the other ingredient, substantially as described.

(Specification, 3s. 6d.)

No. 14219.—14th November, 1901.—WILLIAM THOMAS RILEY, of Victoria Place, off George Street, Sydney, New South Wales, Australia, Furniture-manufacturer. Improvements in woven-wire mattresses and related structures.*

Claims.—(1.) The combination with longitudinals or side bars such as 4, adapted to be kept apart by stretchers such as 5, and having grooves such as 3 therein, of woven wire fixed with its helices running between to side rods such as 2, adapted to fit and be fastened in said grooves such as 3, altogether forming a flat mattress, substantially as described and explained, and as illustrated in the drawing. (2.) The combination with longitudinals or side bars such as 4, adapted to be kept apart by stretchers such as 5, and having grooves such as 3 therein, of woven wire fixed with its helices running between to side rods such as 2, adapted to fit and be fastened in said grooves such as 3, and curved cheeks such as 11 having curved rods such as 12 similarly carrying curved woven wire, and having similar stretchers such as 5, substantially as described and explained, and as illustrated in the drawing. (3.) The combination with longitudinals or side bars such as 4, adapted to be kept apart by stretchers such as 5, and having grooves such as 3 therein, of woven wire fixed with its helices running between to side rods such as 2, adapted to fit and be fastened in said grooves such as 3, curved cheeks such as 11 having curved rods such as 12 similarly carrying curved woven wire, and having similar stretchers such as 5, and legs such as 13 affixed to the frame by said stretchers such as 5, substantially as described and explained, and as illustrated in the drawing. (4.) The combination with longitudinals or side bars such as 4, adapted to be kept apart by stretchers such as 5, and having grooves such as 3 therein, of woven wire fixed with its helices running between to side rods such as 2, adapted to fit and be fastened in said grooves such as 3, curved cheeks such as 11 having curved rods such as 12 similarly carrying curved woven wire, and having similar stretchers such as 5, and legs such as 13 and back such as 15 affixed to the frame by said stretchers such as 5, substantially as described and explained, and as illustrated in the drawings.

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

No. 14264.—21st November, 1901.—WILLIAM HENRY LAWRENCE, of Fowke Street, Richmond, Christchurch, New Zealand, Gardener. An improved bench or tray for the reception and watering of pot plants in greenhouses and elsewhere.*

Claims.—(1.) The combination for the purpose indicated of a tray in the top of the surrounding walls of which is a channel, a discharge-pipe from the tray and a discharge-passage from the channel, and means for closing said pipes, substantially as specified. (2.) An improved bench or tray for the reception and watering of pot plants in greenhouses and elsewhere, constructed, arranged, and operating substantially as and for the purpose described and illustrated.

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

No. 14442.—17th January, 1902.—WILLIAM MARRIOTT and EDWARD BENHAM, of Wanganui, New Zealand, Journeymen Tailors. An improved match-striker.*

Claims.—(1.) An improved match-striker, constructed, arranged, and operating as specified and illustrated. (2.) A match-striker consisting of a flat metal plate roughened upon one surface, and having pins by which it may be secured to a garment.

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

No. 14583.—6th March, 1902.—CHARLES EDWARD NICHOLAS, of Matlock, Victoria, Australia, Manager New Loch Fyne Gold-mining Company. An improved steam-condenser.*

Claims.—(1.) In a steam-condenser, constructing the sides thereof of corrugated metal secured to the straight edges of division or baffle plates in order to utilise the corrugated openings between said parts as passage-ways for the steam, and so cause it to impinge upon the metal sides, substantially as and for the purpose described. (2.) A steam-condenser comprising a marginal frame A provided with inlet-branch D and outlet-branch E, division or baffle plates C within said frame, and the corrugated metal sides B, all arranged and secured substantially as described and shown. (3.) A steam-condenser consisting of a narrow enclosed chamber having its side walls formed of corrugated metal, and within the chamber transverse division or baffle plates upon the straight edges of which and a marginal frame the corrugated sides bear, and with inlet and outlet branches communicating with the chamber, substantially as described and shown.

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

No. 14629.—15th March, 1902.—JAMES MORONEY, of Hastings, Hawke's Bay, New Zealand, Cab-driver. A combined girth and surcingle.*

Claims.—(1.) The combination and arrangement of straps and buckles (or their equivalent bands of webbing straps and buckles) described and illustrated in Fig. 1 of the drawings, that is to say, four straps and buckles, and D's or rings, so arranged relatively to each other and to the saddle and its straps or tabs as to constitute a combined girth and surcingle, which can be readily tightened as required by pulling

upon and buckling either end of the strap which passes over the saddle. (2.) The combination and arrangement of straps and buckles (or their equivalent bands of webbing straps and buckles) and a ring described and illustrated in Fig. 2 of the drawings, that is to say, two straps and buckles and a ring so arranged relatively to each other and to the saddle and and its straps or tabs as to constitute a combined girth and surcingle, which can be readily tightened as required by pulling upon and buckling the free end of the strap which passes over the saddle. (3.) The combination and arrangement of straps and buckles (or their equivalent bands of webbing straps and buckles) and a ring described and illustrated in Fig. 3 of the drawings, that is to say, three straps and buckles and a ring so arranged relatively to each other and to the saddle and its straps or tabs as to constitute a combined girth and surcingle, which can be readily tightened as required by pulling upon and buckling either end of the strap which passes over the saddle. (4.) The combination and arrangement of straps and buckles (or their equivalent bands of webbing straps and buckles) described and illustrated in Figs. 4 and 5 of the drawings, that is to say, two straps and buckles, one end of each of which is buckled to one of the saddle straps or tabs, the free end of the first strap passing through a slit in the second strap (or through a ring attached thereto), and thence over the saddle to a buckle on the outer end of the second strap, the said straps and buckles being so arranged relatively to each other and to the saddle and its straps or tabs as to constitute a combined girth and surcingle, which can be readily tightened as required by pulling upon and buckling the free end of the first strap.

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

No. 14776.—18th April, 1902.—DOUGLAS STUART SPENS STEUART, of 31, South Street, Thurloe Square, London, England, Mining Engineer. Improvements in machines for pulverising, crushing, and grinding.

Claims.—(1.) A machine for pulverising, crushing, and grinding, constructed substantially as and for the purposes described. (2.) In a machine for pulverising, crushing, and grinding, the pivoted hammers so mounted that they are capable of only a partial rotation on their axes, substantially as described. (3.) In a machine for pulverising, crushing, and grinding, the flanged drum *l*, the spindles *m*, *m*, and the pivoted hammers *n*, *n*, capable of only a partial rotation on their axes, substantially as described with reference to the drawings. (4.) In a machine for pulverising, crushing, and grinding, the double-headed reversible hammer as shown in Fig. 4, as and for the purpose indicated. (5.) In a machine for pulverising, crushing, and grinding, the perforated roof-plate *c*, the separating-box *d*, the changeable screens *f*, and the shoots *g*, *g*, combined and operating substantially as and for the purposes described. (6.) In a machine for pulverising, crushing, and grinding, the separating-box *h*, the horizontal sliding screens *i*, *i*, and the shoots *k*, *k*, combined and operating substantially as and for the purposes described. (7.) In a machine for pulverising, crushing, and grinding, the shutter *v*, the pipe *w*, and valve *y*, combined and operating substantially as and for the purposes described.

(Specification, 7s.; drawings, 2s.)

No. 14825.—29th April, 1902.—FRANCIS PEGLER, of Greymouth, New Zealand, School-teacher. Improvements in blackboard-easels.*

Claims.—(1.) In an easel, a sliding bar having shelves extending over the side of the easel, and a cord attached to the side shelves and passing over pulleys fixed to the top of the easel and secured to a cleat upon the frame of the easel, substantially as and for the purposes set forth. (2.) The combination and arrangement of parts comprising my improvements in easels, substantially as and for the purposes set forth and illustrated.

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

No. 14884.—14th May, 1902.—HENRY ISMAY MORALEE ROSS, of Dunedin, New Zealand, Engraver. Improved double-current ventilator.*

Claims.—(1.) In ventilators, the combination of passages for a downtake and an uptake of air, said air entering at the same opening for working both currents, all substantially as described, and as shown on the drawing. (2.) In combination, in a ventilator, trumpet-shaped openings B, and diaphragms C, arranged to make an upward and downward current with balanced doors A^5 to prevent a return current when same is forced to a distance, through pipes D, D, all substantially as set forth. (3.) In combination, in a ventilator, openings curved on plan B^1, B^1, with diaphragms C for producing an upward and a downward current simultaneously, substantially as set forth, and as shown on the drawing. (4.) Louvres applied to the lower portion of ventilator-openings in a double-current ventilator, substantially as set forth, and for the purposes indicated.

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

No. 15032.—19th June, 1902.—THOMAS HERBERT, of Brighton Road, Remuera, Auckland, New Zealand, Manufacturer. An improvement in pingpong-bats.

Claims.—(1.) In a pingpong-bat, the blade thereof having its surfaces or faces formed into regular evenly-spaced and parallel corrugations made to run either lengthwise, crosswise, diagonally, or at any other angle, for the purpose set forth, substantially as described. (2.) In combination, in a pingpong-bat, the blade thereof having its surfaces or faces formed into regular evenly-spaced and parallel corrugations made to run either lengthwise, crosswise, diagonally, or at any other angle, and the handle suitably secured thereto, for the purpose set forth, substantially as described.

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

No. 15035.—24th June, 1902.—CHARLES DAHL, of Palmerston North, New Zealand, Importer and Manufacturer (assignee of George Shailer, of Palmerston North aforesaid, Settler). An improved butter-mould.

Extract from Specification.—The object of my invention is to provide a cheap and handy machine for the purpose of turning out in one act as nearly as practicable butter when manufactured into the shape or form and of the weight desired. For such purpose I use a mould the body of which is made in two parts intended to act as scoops. These scoops are in form both alike, with this variation: that one of them is open at both ends, while the other has a fixed bottom or side attached to the near end thereof, and is open at the other end only. The interior of these scoops (which is intended to hold and convert the butter into shape) may be of any shape in ordinary use, but for preference and descriptive purposes is herein referred to as of rectangular form, and is expressly designed so as to hold and measure the quantity of butter required. In order to connect the scoops with each other a hinge is attached to the under side of the off and open ends of each scoop, and for the purpose of opening and closing the said scoops by means of such attachment a handle is affixed to the upper side and near end of each scoop. While not limiting myself to the use of any particular metal or substance in the construction of the said mould, for preference I use wood for the whole of the said mould except the hinge, which I make of iron.

Claim.—In moulds for shaping and measuring butter in one act, an improved combination of parts constructed and attached substantially as above described.

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

No. 15052.—25th June, 1902.—CHARLES COWAN KIDD, of Spring Hills, Southland, New Zealand, Farmer. Improvements in ditch-ploughs.

Extract from Specification.—In this invention there are two beams C, the front ends of which are supported by a sledge or wheels such as E, which may be pivoted so as to turn corners. Each beam is connected at the rear end to blades I, I, hereinafter described. Said beams C are stayed to a frame A by two rods D, which work in loose eyes at each end so as to be self-adjusting as the beams C are raised or lowered. The frame A is mounted on sledges or wheels such as H, as shown in Fig. 3, and is provided with suitable lowering and raising gear such as B for regulating the depth of the blades and consequently the depth of the drain. The blades I, I, are secured to beams C by means of pins or bolts passing through holes S in said beams, and have serrated teeth J, J, which are so shaped that the upper teeth are in advance of the lower ones, which recede in steps, so that when the machine is in operation the top teeth cut the ground ahead of the lower ones, thus easing the ground above and making the cutting-work of the lower ones easier than if the blades were all in line. The two blades I, I, taper slightly downwards towards each other, thus making draught easier, and helping to raise the cut sods upwards. Socks K are placed between the blades I, I, at the long point of each serrated tooth and cut horizontally, decreasing the size and weight of the sods, and make it more easy to remove them from the ditch. An elevator O, Q, is attached to the back of the bottom sock, its two halves O and Q being hinged at P as shown to enable it to be easily used rounding corners. The front of the elevator is pointed, and it gradually rises backwards until it is sufficiently high to throw the sods clear of the ditch when the machine is in operation, as in Fig. 1. One or two mouldboards R help to throw off the sods. When

it is desired to cut a ditch the machine is placed in position, the blades are lowered to the ground M, N, and the depth regulated by the gear before mentioned, and the elevator attached behind. As soon as the hauling-power is applied to move the machine forward the blades gradually enter the ground to the depth previously regulated, and as the machine moves forward the ditch is cut on both sides and horizontally, the cut sods L rising up the elevator O, Q, when used and being thrown off at the top as before explained. When the ditch is completed the pins or bolts may be taken out of the two foremost of the holes S, and the remaining two pins or bolts act as pivots on which the blades hinge, and by means of which they may be raised out of the ground together with the elevator, and on the beams C being raised the machine is ready for transport. Means such as chains G are provided to connect the machine to the haulage-gear, and a pin F may be provided mounted on wheel E, revolving if desired in a socket-hole in beams C, and may be used for altering the elevation of said beams. As grass or roots may gather against the blades during cutting operations and so hinder the progress of the machine, holes are provided in the teeth I, I. A slot leads from the face of each blade to each hole, through which the grass or roots pass up the elevator with the cut sods. When the elevator is not used, a drain similar to that formed by drain-ploughs would be formed, excepting that the sides are cut in two places instead of one as in the usual case, and the sods being lifted clearer from the bottom and remaining so, so that a channel is formed beneath the sods.

Claim.— The general construction, arrangement, and combination of parts composing my "improvements in ditch-ploughs," all substantially as and for the purposes described with reference to the drawings.

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

No. 15076.—3rd July, 1902.—ERNEST BOHM, of 5, Boxworth Grove, Richmond Road, Barnsbury, London, England, Lamp-manufacturer. Improvements in and relating to globes and the like for illuminating purposes, and means for manufacturing same.

Claims.—(1.) In globes or the like used for illuminating purposes, the formation of a lens around the periphery thereof and integrally therewith, substantially as described and illustrated. (2.) In globes or the like used for illuminating purposes, the formation of a spiral lens integrally therewith either on the outer or inner surface thereof, substantially as described and illustrated. (3.) In globes or the like used for illuminating purposes, and manufacture thereof, a glass spiral of desired section inserted into tube before the blowing thereof into the desired shape, said spiral then forming an integral part of said globe, substantially as described and illustrated. (4.) In globes or the like used for illuminating purposes, and manufacture thereof, a glass rod of desired section, which is wound around the tube prior to the blowing thereof into the desired shape, said rod then forming an integral part of said globe, substantially as described and illustrated.

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

No. 15078.—3rd July, 1902.—JOHN MOGINIE CHAMBERS, of Auckland, New Zealand, Engineer (nominee of West's Patent Tire-setter Company, Limited, of Sydney, New South Wales—the assignees of Jonathan Burns West, of Rochester, New York, United States of America). Improvements in apparatus for compressing wheel-tires and other articles.

Claims.—(1.) In apparatus for pressing wheel-tires and the like, a circular abutment-ring secured upon the top face of a bed-plate, a number of cylinders radially secured to the bed-plate with their outer ends against the abutment-ring, pistons or rams fitting within such cylinders, means for conveying motive power to the cylinders, and means whereby the whole of the pistons or rams shall be caused to simultaneously move radially inwards and outwards upon the bed-plate, as specified. (2.) A number of radially arranged rams or pistons, the outer ends of which fit within cylinders secured upon a bed-plate, while their inner ends are formed with arc faces, and with dependent vertical rods that fit within slots formed in the bed-plate, and are provided with cross pieces on their lower ends, engaging with the bottom edges of such slots, as and for the purposes set forth. (3.) A number of pistons or rams mounted radially upon a bed-plate, with their outer ends working in cylinders secured to such bed-plate, rods depending from the inner ends of the pistons or rams and passing through slots in the bed-plate, and cross pieces attached to the bottoms of the rods, in combination with radial bars secured to the bed-plate midway between and alternately with the cylinders, movable cross pieces upon the outer ends of such radial bars, links connecting the adjacent ends of the cross pieces on the radial bars and dependent from the pistons, and helical springs surrounding the radial bars with means for adjusting the tension thereof, all as and for the purposes set forth and explained. (4.) The general arrangement, construction, and combination of parts in my improvements in apparatus for compressing wheel-tires and other articles as described and explained, as illustrated in the drawings, and for the several purposes set forth.

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

No. 15079.—3rd July, 1902.—EMILE MASLIN, of 6, Bonneveine, Marseilles, France, Engineer. Improvements in and relating to steam-boiler and other furnaces and heat-generating apparatus.

Claims.—(1.) An apparatus intended for the heating of steam-boilers and the like, characterized by a furnace with a closed stove or fuel-chamber of refractory material and without a grate, acting with an artificial draft, the air-supply being first heated at the expense of the waste gases by being made to traverse a suitable regenerator, such apparatus having for its object the complete utilisation of the heat of the fuel and the attainment of a very high economy, substantially as described. (2.) An apparatus of the kind above claimed, consisting of a closed stove or fire-chamber without a grate, into which the fuel is fed automatically in very small charges and at regular and very frequent intervals, the air for the combustion being delivered into the furnace in excess and artifically (either by a fan or an injector) in a quantity proportionate to the amount of fuel to be burnt, in order to insure complete combustion without smoke, this air being previously heated in its passage by traversing a suitable regenerator at the expense of the heat of the waste gases, the ash being liquefied and discharged in the form of liquid, the products of combustion being filtered by means of superposed beds of refractory or incombustible material; the said apparatus having for its object to discharge into the atmosphere only cold gases free from fumes, carbonic oxide, and small unburnt particles of coal, and to utilise completely the heat of any kind of fuel, substantially as described. (3.) The employment of an outer casing or jacket for the regeneration of the heat, designed for the purpose of collecting and absorbing the heat lost by radiation and enclosing all the parts of the plant, the furnace and its flues being surrounded by a primary isolating casing, substantially as described. (4.) The improved arrangement of heat-generating apparatus substantially as described with reference to Fig. 1 or to Figs. 2 to 4 of the drawings, for the purpose specified.

(Specification, 9s. 6d.; drawings, 2s.)

No. 15092.—10th July, 1902.—THOMAS HAMMILL HICKS, of 218, Brackenridge Street, Fort Wayne, Indiana, United States of America, Physician. Improvements in apparatus for separating mercury and amalgam from ore-pulp.

Claims.—(1.) A horizontal annular pan adapted to contain a flowable body of mercury over its entire bottom and mounted to oscillate about its vertical centre, an agitator arranged therein, and means to rotatively oscillate said pan. (2.) An annular pan adapted to contain a flowable body of mercury over its entire bottom and afford passage for flowable bodies over the same and mounted to oscillate about its vertical centre, an amalgamable lining arranged on the bottom of said pan, an agitator arranged therein, and means to rotatively oscillate the same. (3.) A horizontal annular pan adapted to contain a flowable body of mercury over its entire bottom and afford passage for flowable bodies over the same and mounted to oscillate about its vertical centre, an annular agitator mounted on said pan and having pins depending therein, and means to rotatively oscillate said pan. (4.) An annular pan adapted to contain a flowable body of mercury over its entire bottom and afford passage for flowable bodies over the same, a trap arranged in connection with the pan to draw off automatically surplus mercury therefrom, and means to rotatively oscillate said pan. (5.) A vertical series of annular pans, each having an amalgamable lining on its bottom and adapted to contain a flowable body of mercury over said entire lining and afford passage for flowable bodies over the same, and means to rotatively oscillate said series. (6.) A vertical series of annular pans, each adapted to contain a flowable body of mercury over its entire bottom and afford passage for fluid bodies over the same and fitted to discharge such fluid bodies into the next below, an agitator arranged in each pan, and means to rotatively oscillate said series.

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

No. 15093.—10th July, 1902.—THOMAS HAMMILL HICKS, of 218, Brackenridge Street, Fort Wayne, Indiana, United States of America, Physician. Improvements in processes for recovering gold from refractory ores in the form of amalgam.

Claims.—(1.) The process of recovering gold as amalgam from pulverised sulphides (commonly called "concentrates") which consists in subjecting such sulphides when dry to the action of heat and of hot mercury-vapour, as shown in the specification, and then collecting the freed gold, whether in particles of amalgam or not, by any effective liquid-mercury amalgamating or mercury-massing apparatus. (2.) The process of recovering gold as amalgam from pulverised sulphides (commonly called "concentrates") which consists in subjecting such sulphides when dry to the action of heat and to the action of hot mercury-vapour while their resultant temperature is between 350° Fahr. and the boiling-point of mercury, and then collecting the thereby freed gold and amalgam therein contained by means of apparatus suitable for massing finely divided mercury and amalgam or for liquid-mercury amalgamation. (3.) The process of recovering gold as amalgam from pulverised refractory ores which consists in first collecting the free gold therein contained by liquid-mercury amalgamation, and then subjecting, when dry, that part of the residue of such ore containing gold, after separating therefrom as much of the barren ore-gangue as practicable, to the action of heat and to the action of hot mercury-vapour while the resultant temperature thereof is between 350° Fahr. and the boiling-point of mercury, and then collecting the thereby freed gold and amalgam therein contained by any apparatus suitable for liquid-mercury amalgamation or for the massing of fine particles of mercury and amalgam.

(Specification, 18s. 6d.; drawings 2s.)

No. 15094.—10th July, 1902.—THOMAS HAMMILL HICKS, of 218, Brackenridge Street, Fort Wayne, Indiana, United States of America, Physician. Improvements in apparatus for separating mercury from amalgam.

Claims.—(1.) In a rotatable vessel, a cylindrical chamber and an annular chamber, each adapted to contain mercury, and both arranged concentrically to the axis of said vessel's revolution, and connected only by one or more joints so closely fitted as to prevent the passage of mercury therethrough except under pressure. (2.) A rotatable vessel having two concentric chambers connected only by one or more joints so closely fitted as to prevent the passage of mercury except under pressure, and an annular dam at the top of each chamber extending from its outer wall inward. (3.) In a rotatable vessel, two concentric chambers 10 and 11 connected only by one or more joints so closely fitted as to prevent the passage of mercury except under pressure, in combination with openings 12 for escape of water.

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

No. 15095.—10th July, 1902.—THOMAS HAMMILL HICKS, of 218, Brackenridge Street, Fort Wayne, Indiana, United States of America, Physician. Improvements in ore-concentrators.

Claims.—(1.) In an ore-concentrator, a spirally descending annular concentrating-trough adapted to rotatively oscillate, a series of riffles arranged downward and inward on the bottom, and means to oscillate said trough rotatively. (2.) In an ore-concentrator, a spirally descending annular concentrating-trough having a series of riffles arranged upon its bottom which converge downward from the outer wall toward the inner wall thereof, a series of diverting septa arranged upon the tops of said riffles downward and outward from said inner wall, and means to rotatively oscillate said trough. (3.) In an ore-concentrator, a spirally descending concentrating-trough, a free passage-way for concentrates along the inner wall of said trough, a series of riffles arranged upon the bottom of the trough converging from the outer wall toward said passage-way, and means to rotatively oscillate said trough. (4.) In an ore-concentrator, the spirally descending trough 1, the riffles 2 arranged downward and inward on the bottom of such trough, the septa 3 arranged downward and outward upon said riffles, the passage-ways 23 and 24 arranged respectively next the inner and outer walls of said trough, and means to rotatively oscillate said trough. (5.) In an ore-concentrator, the spirally descending trough 1, the riffles 2 arranged downward and inward on the bottom of such trough, the passage-way 23, the mercury-collecting trap 4 arranged in the passage-way 23, and means to rotatively oscillate the same. (6.) In an ore-concentrator, two spirally descending troughs rigidly mounted upon a hollow cylinder one above the other, and each provided with a series of riffles on the bottom converging downward and inward from the outer wall, and a series of septa on said riffles diverging downward and outward from the inner wall, and means to rotatively oscillate the same. (7.) In an ore-concentrator, riffles 2 arranged as a series annularly round a cylindrical form and individually so as to be convergent inwardly and diagonal to the intercepted radii of such form, in combination with means to differentially oscillate such concentrator about such form.

(Specification, 8s. 6d.; drawings, 2s.)

No. 15096.—10th July, 1902.—THOMAS HAMMILL HICKS, of 218, Brackenridge Street, Fort Wayne, Indiana, United States of America, Physician. Improvements in rotatable single-ball ore-pulverising apparatus.

Claims.—(1.) In ore-pulverising apparatus, a single pulverising sphere or ball 4, a ring 1 whose inner surface is concaved for most of its length to conform to the surface of said sphere and whose inner diameter is barely sufficient to admit the passage of 4 therethrough, two heads 2 and 3 fitted to engage opposite ends of 1 and support it so that its tread 26 shall be constantly equidistant at all similar points from the axis of revolution, and bolts 17 outside of 1 fitted to clamp and hold said flanges tightly against the ends of 1. (2.) In ore-pulverising apparatus, a ring having a tread on its inner surface conforming to the pulverising-sphere to roll thereon, and two heads arranged to hold and support said ring equidistant at all similar points from the axis of revolution, each having a centrally projecting trunnion containing a central opening, of which the one serves as an inlet and the other as an outlet for ore and water, the inlet-opening tapering outwardly and receiving a feed pipe which enters through a stuffing-box. (3.) In ore-pulverising apparatus, a ring having a concave tread upon its inner surface, arranged between heads having shouldered flanges and centrally projecting trunnions mounted in supporting bearings, and a solitary sphere adapted to roll upon said tread, the concavity of the tread conforming with the said sphere. (4.) In ore-pulverising apparatus, a ring having a concave tread upon its inner surface, arranged between heads having centrally projecting trunnions mounted in supporting bearings, and a solitary sphere of a size to conform to the opening of said ring.

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

No. 15100.—10th July, 1902.—GEORGE LEWIS GOWLLAND, of Peterborough, Ontario, Canada, Inventor. Improvements in combined prepayment and recording current-meters.

Claims.—(1.) A current-meter in which a magnetic flux is employed for giving movement to the indicating-parts, characterized by the arrangement that means are provided (such as the flux-plate 21 extending laterally from the magnet 17 and adjacent to a revoluble disc 16) whereby the flux is transferred to a distance from the magnet. (2.) In a current-meter such as defined in claim 1, the improvement characterized by the provision of means for producing eddy currents for driving a revoluble member of the indicating-mechanism. (3.) A current-meter, such as defined in claim 1, characterized by the arrangement that the meter and its indicating-mechanism (such as is shown in the upper portion of Fig. 6) are governed by a coin-controlled disc 74 in such a manner that upon the release of the said disc 74 by a coin the meter and its indicating-mechanism will function to a predetermined extent and then be positively arrested. (4.) A current-meter characterized by the arrangement that the indicating-parts (such as are shown in the upper portion of Fig. 6) are propelled by an electric current, whereof the circuit is closed by the weight of a coin depressing an electrode 65 into a vessel 67 containing mercury. (5.) A current-meter in which a magnetic flux is employed for giving movement to the indicating-parts, characterized by the arrangement that a solenoid 28 is disposed immediately opposite a certain advantageous point G upon a flux-plate 21, whereby a disc 16 rotates between the point G and the plate 21 through a double field of flux-lines. (6.) A current-meter in which a magnetic flux is employed for giving movement to the indicating-parts, characterized by the arrangement that a flux-plate 32 is adjustable relatively to the solenoid 28 and to the revoluble disc 16, which arrangement diminishes or increases the flux as per the adjustment. (7.) A current-meter in which a coin is employed for functioning the indicating-parts, characterized by the arrangement that the pointer 76 indicates any unexpended quantity of current due the consumer for a coin already deposited. (8.) A current-meter in which a coin is employed for functioning the indicating-parts, characterized by the arrangement that the disc 74 must make exactly the same number of revolutions as the number of coins deposited. (9.) A current-meter in which a coin is employed for functioning the indicating-parts, characterized by the arrangement that immediately after a coin is deposited means such as the rod 60 are provided whereby a second coin is prevented from being deposited before the meter finishes functioning for the coin first deposited. (10.) A current-meter in which a magnetic flux is employed for giving movement to the indicating-parts, characterized by the arrangement that the flux-plate 21 consists of thin laminæ 23 of conducting material insulated from each other. (11.) A current-meter in which a magnetic flux is employed for giving movement to the indicating-parts, characterized by the arrangement that the magnet 45 has a divided core of magnetic material, whereby the flux is divided into two parts, one for making the disc 16 sensitive, and the other to rotate the disc. (12.) A current-

meter in which a magnetic flux is employed for giving movement to the indicating-parts, characterized by the arrangement that the plates 43, 37, 44, are in alignment with each other, whereby the rotative effect upon the disc is increased. (13.) A current-meter in which a magnetic flux is employed for giving movement to the indicating-parts, characterized by the arrangement that the coil 36 has a central plate 37 of conducting but non-magnetic material, whereby it transfers its flux more readily to the flux-plate 21.

(Specification, 12s. 6d.; drawings, 3s.)

No. 15102.—10th July, 1902.—LOUIS CARNEGY AULDJO, of Equitable Building, George Street, Sydney, New South Wales, Australia, Consulting Engineer. Improvements in steam-boilers.

Claims.—(1.) In a steam-boiler, an insulated jacket in the water-space, as and for the purpose set forth. (2.) In a steam-boiler, an insulated jacket for isolating a confined water-space, as and for the purpose set forth. (3.) In a steam-boiler, an insulated jacket for isolating an enclosed space which has an inlet at or near the bottom and an outlet at or near the water-level, substantially as described and shown on the drawings, and for the purpose set forth. (4.) In a steam-boiler, an insulated jacket enclosing and isolating a space in which the water surrounding the furnace is confined. (5.) In a steam-boiler fitted with Galloway tubes, an inner insulated tube in combination with an insulated jacket which encloses a space in which the water surrounding the furnace is confined, such space having an inlet near the bottom of the boiler and an outlet at or near the water-level, as and for the purpose set forth. (6.) In a steam-boiler having Field tubes, the insulation of the inner circulating tubes, in combination with an insulated jacket to which they are secured, as and for the purpose set forth. (7.) In a water-tube boiler constructed with concentric tubes, the insulating of the inner tubes and the central dividing-plate to which they are secured, as and for the purpose set forth. (8.) In an externally-fired boiler, an insulated jacket confining the water which surrounds the furnace, in combination with insulated tubes which extend to or near the water-level, substantially as and for the purpose set forth. (9.) In a steam-boiler, an insulated jacket enclosing a space having an inlet near the bottom of the boiler and an outlet at or near the water-level, in combination with a baffle-plate, as and for the purpose set forth. (10.) In a steam-boiler, in combination with the furnace *b*, the insulated jacket *c* enclosing space *m* about said furnace, the inlet *j* and outlet *e*, substantially as described, and shown on the drawings, and for the purpose set forth. (11.) In a steam-boiler, in combination with the furnace *b*, the insulated jacket *c* enclosing space *m* about said furnace, the inlet *j*, outlet *e*, and baffle-plate *d*, substantially as described, and shown on the drawings, and for the purpose set forth.

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

No. 15110.—11th July, 1902.—ALEXANDER RATTRAY AYSON, of Mosgiel, near Dunedin, New Zealand, Insurance Agent. Improvements in and relating to adjustable handles for receptacles.

Claims.—(1.) The combination in apparatus for the purpose indicated of a clip comprising two metal plates, one of which has a projecting lip, a screw passing through said plates, a nut upon the screw whereby the plates may be drawn together to clamp the wall of a receptacle between them, and a handle pivotally connected to the clip. (2.) The combination in apparatus for the purpose indicated of a clip comprising two metal plates, one of which has a projecting lip, a screw passing through said plates, a wing nut upon the screw whereby the plates may be drawn together to clamp the wall of a receptacle between them, a cylindrical extension from said wing nut, and an eye upon the end of a handle threaded upon said extension. (3.) The combination in apparatus for the purpose indicated of a clip comprising two metal plates each having a recess, the recesses adapted to come into correspondence when the clip is in use, a screw passing through the plates, a nut upon the screw whereby the plates may be drawn together to clamp the wall of a receptacle between them with the beaded edge of the receptacle in said recesses, and a handle pivotally connected to the clip. (4.) The combination in apparatus for the purpose indicated of a clip comprising two metal plates each having a recess, the recesses adapted to come into correspondence when the clip is in use, a screw passing through the plates, a nut upon the screw whereby the plates may be drawn together to clamp the wall of a receptacle between them with the beaded edge of the receptacle in said recesses, and a handle pivotally connected to the clip, a cylindrical extension from said wing nut, and an eye upon the end of a handle threaded upon said extension. (5.) The combination, in means for securing a handle upon a receptacle, of a wing nut having a cylindrical extension, an eye at the extremity of a handle pivoted thereon, a screw to fit the wing nut, and means whereby the screw is carried by the wall of the receptacle.

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

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

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

The date of acceptance of each application is given, and the number.

F. WALDEGRAVE,
Registrar

Provisional Specifications.

Patent Office,
Wellington, 23rd July, 1902.

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

No. 14812.—1st May, 1902.—JOHN THOMAS MOATE, of 75, King William Street, Adelaide, South Australia, Engineer. An improved method of and means for advertising, circulating advertisements, and for checking or assessing commissions due on trade or business introduced through such advertisements, and for identifying the persons entitled to commissions in connection therewith.

No. 14860.—9th May, 1902.—WILLIAM JAMES MCLEAN, of Waihi, New Zealand, Gold-miner. A pot-stick and washing-tongs.

No. 14928.—24th May, 1902.—HENRY WILLIAM LOVEGROVE, of Balgay, Glen-iti, Timaru, New Zealand, Government Insurance Agent, Accident Branch. An improved wagon or stand for carrying buckets or other vessels during floor-washing and similar operations.

No. 15029.—23rd June, 1902.—ARTHUR CECIL WHITNEY, of Auckland, New Zealand, Company-manager (nominee of Major Frederick Mondelet Gaudet, of the Royal Canadian Artillery, Quebec, Canada). Improvements in or relating to rifle-shooting at short range.

No. 15075.—3rd July, 1902.—THOMAS FENNESSY, of 104, Ross Street, Port Melbourne, Victoria, Australia, Inventor. Machine or appliance for rolling swampy, mallee, and other lands, and usable for other purposes.

No. 15081.—30th June, 1902.—JOHN HENRY PLEDGER, of Littlebourne, Dunedin, New Zealand, Painter. Window-sash adjuster.

No. 15082.—2nd July, 1902.—JAMES FREDERICK MCIVOR, of Dunedin, New Zealand, Carpenter. Means for checking the descent of dredge-buckets down a dredge-ladder on the breaking of a connection.

No. 15085.—5th July, 1902.—THOMAS CURRIE MCLENNAN, of Belfast, New Zealand, Engineer, and JOHN WILLIAM PEPPERELL, of Belfast aforesaid, Photographer. An improved non-refillable bottle.

No. 15087.—3rd July, 1902.—JOHN POMEROY, of North Invercargill, New Zealand, Fish-curer. An improved fountain pen.

No. 15088.—7th July, 1902.—JOHN PHILEMON BROWN, of 171, High Street, Christchurch, New Zealand, Importer. Improvements in and relating to buttons.

No. 15090.—10th July, 1902.—CARL EMIL THIES, of 21, Fletcher Street, Auburn, near Melbourne, Victoria, Australia, Gentleman, and LEWIS ELLIOTT LOWREY, of 86, Rathmines Road, Auburn aforesaid, Mechanic. An improved revoluble attachment for incandescent gas and other lamps, specially applicable for advertising purposes.

No. 15098.—10th July, 1902.—JOHN THOMAS METTERS and CHARLES HENRY METTERS, both of 356, Post Office Place, Little Bourke Street, Melbourne, Victoria, Australia, Range-manufacturers. Improvements in open household fire-grates.

No. 15101.—10th July, 1902.—ELIAS DIMANT, of Watson's Chambers, Flinders Lane, Melbourne, Victoria, Australia, Warehouseman. Improved divided tread or sole for boots and shoes.

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

No. 15104.—10th July, 1902.—JAMES THOMAS WOODS, of 454, Collins Street, Melbourne, Victoria, Australia, Sawmiller. Appliance to be used in coupling railway-trucks.

No. 15105.—10th July, 1902.—WILLIAM LEGERTWOOD DAVIDSON, of McKenzie, Cheviot, New Zealand, Carpenter and Joiner. Improved means for preventing the extraction of letters from letter-boxes.

No. 15106.—9th July, 1902.—THOMAS CURRIE MCLENNAN, Engineer, and JOHN WILLIAM PEPPERELL, Photographer, both of Belfast, New Zealand. An improved non-refillable bottle.

No. 15107.—11th July, 1902.—ALFRED JAMES MASSEY, of Gisborne, New Zealand, Music-teacher. A new indoor pastime or game.

No. 15109.—11th July, 1902.—CHARLES WRIGHT STEPHENSON, of 11½, Lorne Street, Wellington, New Zealand, India-rubber Dealer. Improvements in repairing patches for bicycle-tires and the like.

No. 15111.—8th July, 1902.—KATE RAYMOND, Wife of Frank Victor Raymond, of Invercargill, New Zealand, Solicitor. Improvements in hair-curlers.

No. 15112.—8th July, 1902.—CHARLES RILLSTONE, of Dunedin, New Zealand, Mine-manager. Improved draught-producer and spark-preventer.

F. WALDEGRAVE,
Registrar.

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

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

Letters Patent sealed.

LIST of Letters Patent sealed from the 10th to the 23rd July, 1902, inclusive:—

No. 13650.—A. C. Atkin, axle-nut and oil-cap for vehicles.
No. 14058.—E. Langer, drafting patterns for garments.
No. 14518.—A. S. Elmore, separating minerals.
No. 14533.—W. Over, dressing for wounds, &c.
No. 14540.—N. Bidstrup, fluid-register (J. Marchbank).
No. 14587.—J. Couston and W. Porritt, jointing iron plates.
No. 14614.—M. B. L. Ehrmann and the Queensland Meat Export and Agency Company, Limited, tin-joints.
No. 14648.—H. Smith, decorating.
No. 14698.—United Shoe Machinery Company, pulling-over machine (R. F. McFeely).
No. 14728.—C. E. Billin, stamp mill (W. S. McKinney).
No. 14729.—C. A. Keller, electric blast furnace.
No. 14730.—A. T. de Bary, rod for wire fencing.
No. 14731.—R. Oxlade and W. J. W. Richardson, electric telegraphy.
No. 14733.—W. E. Hughes, packing cigarettes, &c. (the Baron Cigarette Machine Company, Limited—L. B. Baron and E. T. Pollard).
No. 14734.—J. Vorbach, potato-digger.
No. 14739.—Federal Refining Company, treatment of sugar (C. A. Spreckles and C. A. Kern).
No. 14753.—L. C. Auldjo, air or gas compressor.
No. 14758.—H. Grass, dropper for pasty material.
No. 14762.—H. Peck, can-washing machine (J. M. K. Letson and F. W. Burpee).
No. 14763.—H. Peck, can-capping machine (J. M. K. Letson and F. W. Burpee).
No. 14764.—H. Peck, die for forming can-end (J. M. K. Letson and F. W. Burpee).

F. WALDEGRAVE,
Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 10513.—E. B. Parnell, treatment of ores. 14th July, 1902.
No. 10775.—H. R. and H. L. Hancock, rock-drill. 10th July, 1902.
No. 10809.—W. S. Lockhart, hydraulic separators. 17th July, 1902.
No. 10824.—M. F. Donaldson, cure for rheumatism. 22nd July, 1902.

THIRD-TERM FEES.

No. 7568.—C. H. Palmer, J. W. Denmead, and J. A. Baughman, machine for filling match-boxes. 22nd July, 1902.
No. 7781.—J. Durward, H. J. Topliss, and C. Topliss, governor. 18th July, 1902.

F. WALDEGRAVE,
Registrar.

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

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

NO. 14430.—The British Westinghouse Electric and Manufacturing Company, Limited, having their registered office at Westinghouse Building, Norfolk Street, in the City of Westminster, England, Manufacturers, system of electrical distribution. [W. T. L. Travers—J. S. Peck.] 14th July, 1902.

No. 14620.—The British Westinghouse Electric and Manufacturing Company, Limited, having their registered office at Westinghouse Building, Norfolk Street, in the City of Westminster, England, Manufacturers, collector rings for electrical machines. [W. T. L. Travers—R. Siegfried.] 14th July, 1902.

No. 14644.—The British Westinghouse Electric and Manufacturing Company, Limited, having their registered office at Westinghouse Building, Norfolk Street, in the City of Westminster, England, Manufacturers, dynamo-electric generator. [J. P. Campbell—B. G. Lamme.] 14th July, 1902.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent abandoned.

LIST of Applications for Letters Patent (with which provisional specifications only have been received) abandoned from the 10th to the 23rd July, 1902, inclusive:—

No. 13988.—C. Hill, fire-proof shutter for lift-openings.
No. 13989.—M. T. West, milk-can lid.
No. 13997.—D. Jones, propulsion of vessels.
No. 14000.—T. Poynter, unpuncturable pneumatic tire.
No. 14002.—J. Foster, cleaning boots, &c.
No. 14003.—M. Kennedy, washing-fluid.
No. 14004.—R. W. de Montalk, an asphalt.
No. 14006.—A. Walsh, material for tobacco-pouches, &c.
No. 14007.—H. Donkin, tooth-powder.
No. 14017.—W. Hinchey, steam-generator.
No. 14020.—G. T. Allnutt and W. E. Lake, butter weigher and moulder.
No. 14021.—W. T. Widdowson, drawing off kerosene.
No. 14022.—P. G. Kelly, billiard-cue tip.
No. 14024.—S. Edwards, wood punches.
No. 14028.—C. Lashlie, pneumatic tires.
No. 14029.—C. B. Smith, salemen's check-book.
No. 14030.—T. McKenzie, milk-bucket rest.
No. 14031.—J. R. Brunt and R. C. Pitt, pneumatic tires.
No. 14032.—E. Smethurst, defrosting frozen meat.
No. 14033.—J. E. Friend, turbine motor.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent lapsed.

LIST of Applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 10th to the 23rd July, 1902, inclusive:—

No. 13295.—H. W. Acton-Adams, shoe-tree.
No. 13326.—A. Storrie, lime and manure distributer.
No. 13344.—J. S. Kirkpatrick, electro-starting semaphore.

F. WALDEGRAVE,
Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of renewal fees from the 10th to the 23rd July, 1902, inclusive:—

No. 10484.—T. E. Kilworth, Cambridge roller.
No. 10492.—H. Valder, overweight-indicator.
No. 10493.—J. Wright and J. W. Mitchell, hat-fastener.
No. 10502.—D. M. Seaton, thread-carriers for looms.
No. 10504.—F. W. Vickery, self-feeder for printing-machines, &c.
No. 10506.—The Daylight Incandescent Mantle Company, Limited, incandescent fluid for impregnating fabric (G. B. Puchmüller).
No. 10507.—G. J. Betts and F. T. Bower, tire-mending composition (E. Thurlow and P. N. Hignett).
No. 10508.—E. T. Gilliland, mouth-piece cigarettes.
No. 10509.—T. J. Denny, treating slimes and tailings (J. C. Clancy).
No. 10511.—J. Alders, sheep-shearing machine.
No. 10512.—D. M. Seaton, looms.
No. 10525.—A. H. Cotton, mustard-pot.
No. 10526.—H. G. Williams, A. Broad, and C. G. Crolly, scrubbing-brushes, &c.

F. WALDEGRAVE,
Registrar.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, 23rd July, 1902.

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

No. of application: 3296.
Date: 7th February, 1901.

TRADE MARK.

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

NAME.

PEEK, FREAN, AND COMPANY, of 154–198, Drummond Road, Bermondsey, London, England, Biscuit-manufacturers.

No. of class: 42.

Description of goods: Butter and other substances used as food or as ingredients in food, excepting tea.

No. of application: 3722.
Date: 21st March, 1902.

TRADE MARK.

The essential particulars of the trade mark are the combination of devices and the word "Challenge"; and the applicants disclaim any right to the exclusive use of the added matter, except in so far as it consists of their own name and address.

NAME.

ANDERSON AND SHAW, of 53, Morrison Street, Southside, Glasgow, Scotland, Merchants.

No. of class: 43.

Description of goods: Whisky.

No. of application: 3790.
Date: 22nd May, 1902.

TRADE MARK.

NAME.

W. F. LUCAS AND COMPANY, of No. 129A, London Wall, in the City of London, England, Manufacturers of Underclothing and Clothing for Women and Children.

No. of class: 38.

Description of goods: Underwear for adult men and women, and children.

No. of application: 3793.
Date: 22nd May, 1902.

TRADE MARK.

The essential particulars of this trade mark are the combination of the devices and the word "Erup"; and the applicants disclaim any right to the exclusive use of the added matter, save and except their name and address.

NAME.

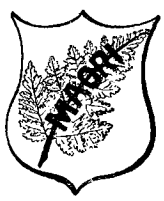
GEORGE HAMILTON GRAPES AND COMPANY, of The Orchards, Paraparaumu, New Zealand, Fruit-growers and Horticultural Merchants.

No. of class: 42.

Description of goods: Jams, jellies, and fruits.

No. of application: 3818.
Date: 10th June, 1902.

TRADE MARK.



NAME.

JAMES WISEMAN AND SON, of Auckland, in the Colony of New Zealand, Saddlers.

No. of class: 37.

Description of goods: Leather goods in this class, such as saddlery.

No. of application: 3819.
Date: 10th June, 1902.

TRADE MARK.

NAME.

JAMES WISEMAN AND SON, of Auckland, in the Colony of New Zealand, Saddlers.

No. of class: 37.

Description of goods: Leather goods in this class, such as saddlery.

No. of application: 3820.
Date: 10th June, 1902.

TRADE MARK.

NAME.

JAMES WISEMAN AND SON, of Auckland, in the Colony of New Zealand, Saddlers.

No. of class: 37.

Description of goods: Leather goods in this class, such as saddlery.

No. of application: 3836.
Date: 24th June, 1902.

TRADE MARK.

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

NAME.

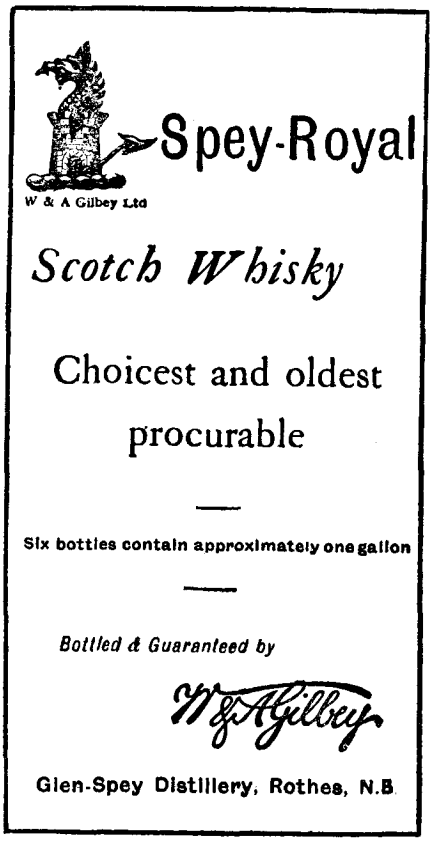
THE UNITED FARMERS' CO OPERATIVE ASSOCIATION, of Palmerston North, New Zealand, Merchants.

No. of class: 42.

Description of goods: Tea.

No. of application: 3838.
Date: 27th June, 1902.

TRADE MARK.



The essential particulars of this trade mark are the device fac-simile signature, and the words "Spey-Royal"; and any right to the exclusive use of the added matter, except the name and address, is disclaimed.

NAME.

W. AND A. GILBEY, LIMITED, of "Pantheon," Oxford Street, London, W., England.

No. of class: 43.

Description of goods: Whisky.

No. of application: 3848.
Date: 8th July, 1902.

TRADE MARK.

NAME.

HENRY DRIVER, of Pollen Street, Thames, New Zealand, Fruit and Provision Preserver, Thames Canning and Preserving Works.

No. of class: 42.

Description of goods: Canned provisions, fruit, chicken, meat, fish, jam.

No. of application: 3855.
Date: 17th July, 1902.

TRADE MARK.

The word

PRAM.

NAME.

PETER DUTTON, of South Dunedin, New Zealand, Chemist and Dentist.

No. of class: 3.

Description of goods: Ointment and other medicinal remedies.

Trade Marks registered.

LIST of Trade Marks registered from the 10th to the 23rd July, 1902, inclusive:—

No. 2928; 3692.—Alexander and Co. Class 44. (*Gazette* No. 34, of the 1st May, 1902.)

No. 2929; 3725.—The Union Bag and Paper Company. Class 43. (*Gazette* No. 34, of the 1st May, 1902.)

No. 2930; 3726.—The Union Bag and Paper Company. Class 43. (*Gazette* No. 34, of the 1st May, 1902.)

No. 2931; 3763.—Hayward Bros., Limited. Class 42. (*Gazette* No. 34, of the 1st May, 1902.)

No. 2932; 3769.—Hayward Bros., Limited. Class 42. (*Gazette* No. 34, of the 1st May, 1902.)

No. 2933; 3731.—J. and J. M. Worrall, Limited. Class 24. (*Gazette* No. 34, of the 1st May, 1902.)

No. 2934; 3732.—J. Watson and Co., Limited. Class 43. (*Gazette* No. 34, of the 1st May, 1902.)

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F. WALDEGRAVE,
Registrar.

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