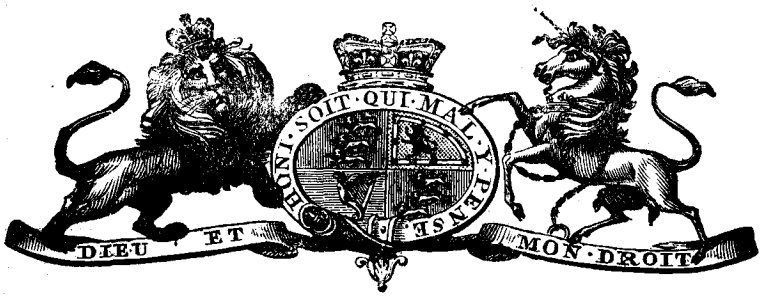

SUPPLEMENT

TO THE

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CONTENTS.

Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 11th June, 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. 13853.—24th July, 1901.—KENNETH BOYD, of St. George's Bay Road, Parnell, Auckland, New Zealand, Sail-maker. An improved fire-escape.*

Claim.—An appliance for escaping from burning buildings and the like, the same consisting of a chute composed of a number of sections of canvas or the like material jointed together in such a manner that when the chute is suspended each section shall form an obtuse angle with the next, as specified.

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

No. 13890.—19th August, 1901.—THOMAS HOLDEN, of Braemore, Hunterville, New Zealand, Station-holder. Improved means for securing fencing-droppers to the wires of the fence.*

Claim.—In means for securing fencing-droppers to the wires of the fence, a clip composed of an elongated wire link or staple that is bent round into the form of a loop, and which is placed upon the dropper and wires of the fence in the manner set forth, in combination with a wedge piece for inserting between the loop and the wires so as to bind the dropper firmly thereto, as specified.

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

No. 13914.—19th August, 1901.—JOHN MICHAEL TREGONING, Saddler and Horse-cover Maker, and DAVID ANDREW TAYLOR, Storeman, both of Waimate, South Canterbury, New Zealand. An improved means of attaching a horse-cover.*

Claims.—(1.) The improved means of attaching a horse-cover, consisting of, in duplicate, a strap provided with a buckle adapted therewith to encircle each hind leg of a horse, a smaller strap attached to the rear thereof provided with a buckle at its free end, said buckle being adapted to receive the end of a third strap attached to the inside of the cover near the bottom of the rear end thereof, a fourth strap attached by one end to the inside of the cover forward of the third strap, having its other end adapted to be looped by means of a buckle thereon, said loop being adapted to receive therethrough the first-mentioned strap, substantially as described. (2.) The general construction, arrangement, and combination of parts composing our improved means of attaching a horse-cover, all substantially as and for the purposes described with reference to the drawings.

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

No. 13936.—27th August, 1901.—JOHN WOOD JONES, of Sumner, New Zealand, Accountant. New or improved apparatus whereby the game of rackets can be played upon a table.*

Claims.—(1.) Apparatus whereby the game of rackets and fives can be played upon a table, substantially as specified. (2.) Apparatus for the purpose indicated, consisting of a collapsible or foldable frame covered with resilient material, and comprising a back portion and two wings, one upon each side of the back, and adjustable at a fixed angle thereto, substantially as specified and illustrated. (3.) Apparatus for playing rackets and fives on a table, consisting of a collapsible frame composed of four uprights, having upper and lower rails hinged to them, each rail being made in two parts, hinged together so that they can be folded inwardly, netting or the like secured to the uprights and to the upper and lower rails, and hooks and eyes and hasps whereby the frame is held in position when open, substantially as set forth.

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

No. 13944.—28th August, 1901.—WILLIAM HINCHEY, Inventor; WILLIAM HAGERTY, Mechanical Engineer; and JOHN HAGERTY, Mechanical Engineer; all of Winton, Southland, New Zealand. Improved means for operating pump and other plungers.*

Claims.—(1.) In means for producing differential reciprocatory motion, a shaft to which rotary motion is conveyed, two wheels of different diameters rigidly mounted upon the shaft and each provided with teeth upon a portion of its periphery, the teeth of the smaller wheel being adapted to engage with the teeth of a rack that forms part of or is connected to the appliance to be reciprocated, while the larger wheel is adapted to engage with a small pinion when the teeth of the smaller wheel have passed over the rack, such pinion being secured upon a shaft loosely mounted in bearings, a spur wheel also secured upon such shaft, and engaging with the teeth of the rack, as specified. (2.) The improved means for operating pump-plungers and the like consisting of the different parts constructed and arranged in the manner described, and illustrated in the drawings, whereby a slow motion in one direction and a quick return motion is obtained without reversing the rotation of the main driving-shaft, as specified.

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

No. 13967.—4th September, 1901.—GEORGE EDWARD RHODES, of Ellerslie, Auckland, New Zealand, Builder. An improved device for starting horse and other races.*

Claims.—(1.) A pair of poles placed one on each side of a racing-track and formed with vertical slots therein, sliding-pieces fitting within the slots, a tape stretched across the track and secured at its ends to the sliding-pieces, and means whereby the sliding-pieces and tape may be retained in their lowest position and be caused to travel upwards when released, as specified. (2.) A pair of poles placed one on each side of a racing-track and formed with vertical slots therein, sliding-pieces fitting within the slots, a tape stretched across the track and secured at its ends to the sliding-pieces, a cord one end of which is secured to a sliding-piece on one side and passes over pulleys on the tops of the poles to the sliding-piece on the other side (to which it is connected) downwards and round a pulley mounted upon the pole on that side and again upwards over other pulleys on the tops of the posts, a long helical spring one end of which is secured to the free end of the cord while the other end is secured to the ground, and means whereby the spring and cord may be held in tension and released therefrom, as and for the purposes specified. (3.) The general arrangement, construction, and combination of parts in my improved device for starting horse and other races, as described and explained, as illustrated in the drawings, and for the several purposes set forth.

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

No. 13970.—5th September, 1901.—REUBEN SPARROW, of Richardson Street, South Melbourne, Victoria, Engineer, and NICOLAY FAHRENHOLTZ JENSEN, of 21, High Street, Malvern, near Melbourne aforesaid, Nurseryman. An improved hub-brake for cycles, automobiles, and other road vehicles.*

Claims.—(1.) An improved hub-brake for cycles, automobiles, and other road vehicles characterized by an adjustable grooved brake-wheel, a downwardly extending bracket and clip to which the lower end of a spring brake-band is clamped, a wire having a short shouldered sleeve fitting between lugs on the upper end of said brake-band, said wire having a mushroom-headed stud, all combined and arranged substantially as set forth. (2.) In a hub-brake for cycles, automobiles, and other road vehicles, a grooved friction brake-wheel having radially sliding screws or studs fitting into inwardly projecting sockets, said screws having grooved heads and fitted with rotating nuts bearing against the face of said sockets, substantially as set forth. (3.) In a hub-brake for cycles, automobiles, and other road vehicles, a spring brake-brand secured at its lower end to a bolt passing through and clamped to a downwardly extending bracket or arm and clip, the other end of said bracket or arm fitting over the spindle of the drive wheel, and clamped between the back fork and adjustable cup or cone. (4.) In a hub-brake for cycles, automobiles, and other road vehicles, a spring brake-band mounted on a bolt, passing through the lower end of a downwardly extending bracket or arm and clip and secured by a nut, and an idle pulley on said bolt under which the actuating wire passes, substantially as set forth. (5.) In a hub-brake for cycles, automobiles, and other road vehicles, a wire connected to a spring brake-band and having short lengths of adjustment-chain and a mushroom-headed stud or pin with outwardly bent lugs on the lower end adapted to engage the looped ends of a double link, substantially as set forth.

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

No. 14208.—11th November, 1901.—CHARLES AUSTIN BRIGGS, of Wellington, New Zealand, Accountant. Improvements in fire-escapes.*

Claim.—A fire-escape ladder composed of a number of treads of metal or other material, formed with flat surfaces on their sides, and of chains passing upon each side of each tread at both ends thereof, such treads being secured firmly to the chains by means of bolts passing through the sides of the treads and through the links of the chains on each side, as specified.

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

No. 14226.—14th November, 1901.—MURRAY CORRINGTON, of 40, Wall Street, New York, United States of America, Engineer. Improvements in automatic fluid-pressure brake-apparatus.

Claims.—(1.) In an automatic fluid-pressure brake-mechanism, the combination, with a train-pipe, an auxiliary reservoir, and a brake-cylinder, of a primary piston and valve controlling the release of air from said cylinder, and a means for causing said piston and valve to move to release-position, which consists of a valve-device for opening an exhaust-passage from one side of the primary piston and at the same time closing the passage by which fluid-pressure is normally supplied to the same side of the said piston. (2.) In an automatic fluid-pressure brake-mechanism, the combination, with a train-pipe, an auxiliary reservoir, a brake-cylinder, and a recharging-passage for charging air from the train-pipe to the reservoir while the brakes are applied, of a primary piston and a valve controlling the release of the brakes and a means for causing said piston and valve to move to release-position, which consists of a valve-device for opening an exhaust-passage from one side of said primary piston and at the same time preventing the pressure which flows through said recharging-passage from getting to the same side of said piston. (3.) In an automatic fluid-pressure brake-system, ports and passages in the triple valve adapted to register with ports and passages in a side plate bolted on to said triple-valve casing, or with ports and passages in a valve-mechanism attachment to be bolted on to the triple-valve casing in place of said side plate, so that with the side plate in position on the triple-valve casing the brakes may be operated in the usual way and released during the recharging of the auxiliary reservoirs; but when said valve-mechanism attachment is bolted to the triple-valve casing in place of the side plate, the auxiliary reservoirs may be recharged while the brakes are on, and the brakes may be positively released after the auxiliary reservoirs are so recharged, substantially as set forth. (4.) In an automatic brake-mechanism, means whereby the auxiliary reservoirs can be charged when the brakes are applied, and the brakes released after the reservoirs are charged, substantially as described with reference to the drawings.

(Specification, £1 16s.; drawings, 3s.)

No. 14567.—27th February, 1902.—JOHN FRANCIS MCNEILL, of 553, Flinders Street, Melbourne, Victoria, Commercial Traveller. An improved turnip and other small-seed sower for attachment to agricultural and other machines.*

Claims.—(1.) The improvements in a turnip and other small-seed sower for attachment to agricultural and other machines, consisting of, in combination, a receptacle containing seed, a vertical plate closing same, a feed-duct in said vertical plate, an extension or rim to said vertical plate, a ring of perforations through said rim, the whole mounted on and rotatable by a shaft, a stationary band fitting round

said perforated rim, a disc exteriorly closing in said stationary band, an opening in said stationary band, and a tube leading from said opening to the soil, substantially as and for the purposes set forth. (2.) The improvements in a turnip and other small-seed sower for attachment to agricultural and other machines, consisting of, in combination, a receptacle containing seed, a vertical plate closing same, a feed-duct in said vertical plate, a tapered extension or rim to said vertical plate, a plurality of rings of perforations through said rim, an incomplete circular spring band laterally slidable within said rim, the whole mounted on and rotatable by a shaft, a stationary band fitting partially round said perforated rim, a disc exteriorly closing in said stationary band, an opening in said stationary band, and a tube leading from said opening to the ground, substantially as and for the purposes set forth. (3.) The general construction, arrangement, and combination of parts composing my improved turnip and other small-seed sower for attachment to agricultural and other machines, all substantially as and for the purposes described with reference to the drawings.

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

No. 14618.—13th March, 1902.—MURRAY CORRINGTON, of 40, Wall Street, New York, United States of America, Attorney-at-Law, and FRANK LEMONT DODGSON, of Rochester, New York, United States of America, Engineer. Improvements in pneumatic railway signalling.

Claims.—(1.) A distributing-valve, a single source of fluid-pressure supply, which is to be distributed by the valve according to its position, a cylinder and piston for operating said distributing-valve, an operating-pipe for said valve, and means for connecting one side of said cylinder to the atmosphere when pressure is increased in the operating-pipe, and means for connecting the opposite side of the cylinder to the atmosphere when pressure is reduced in the operating-pipe, substantially as described. (2.) In a fluid-pressure distributing-valve, a single source of fluid-pressure supply which is to be distributed by said valve, a cylinder and piston acting upon said valve, a controlling or operating pipe for the valve, two diaphragms, and valves attached to said diaphragms, controlling the admission of air to and from the two ends of the cylinder, substantially as described. (3.) The combination with a motor-mechanism of a distributing-valve, a single source of fluid-pressure supply which is to be distributed by said valve to the motor-mechanism according to its position, a cylinder and piston for operating said distributing-valve, a single operating-pipe for said valve, means for causing increase of pressure above the normal in said pipe to operate the valve in one direction, means for causing decrease of pressure below the normal in said pipe to operate the valve in the other direction, and means for equalising the pressure to the normal after each operation, said latter means being inoperative until after the valve has completed its movement, substantially as described. (4.) In a fluid-pressure switch or signal mechanism, a manually operated lever in the tower, an indicator-cylinder to act upon the lever, a stop-roller carried by the piston of said indicator-cylinder, said lever having a slot in which the roller is guided, said slot having two parallel portions offset from each other and at right angles to the axis of the indicator-cylinder, thus forming two shoulders, against one of which the roller abuts when the piston in the cylinder is in one extreme position, and against the other one of which shoulders the roller abuts when the piston is in another position, substantially as described.

(Specification, 17s. 6d.; drawings, 6s.)

No. 14683.—25th March, 1902.—JAMES MURISON, of Dunedin, New Zealand, Engineer. Improved sleeve for employment on lower tumbler-shaft of a bucket dredge, and means for securing same to the tumbler and tumbler-shaft.*

[NOTE.—The title in this case has been altered. See List Provisional Specifications, *Gazette* No. 30, of the 17th April, 1902.]

Claims.—(1.) A sleeve or bush for employment upon the lower tumbler-shaft of a dredge, having projecting lugs adapted to take into corresponding recesses formed in the side of the tumbler, substantially as and for the purpose specified and illustrated. (2.) A sleeve or bush for employment upon the lower tumbler-shaft of a dredge, having lugs projecting from a flange at one end and a collar formed integral with its outer end, said collar having holes to receive a bolt securing the sleeve to the tumbler-shaft, substantially as specified and illustrated. (3.) The improved sleeve for employment upon the lower tumbler-shaft of a bucket dredge, and means for securing same to the tumbler and tumbler-shaft, substantially as specified and illustrated.

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

No. 14693.—3rd April, 1902.—THOMAS DOUGLAS KYLE, of Pile Street, Dulwich Hill, Sydney, New South Wales, Engineer. Improvements in the combustion of fuel in boiler and other furnaces, and in apparatus therefor.

Claims.—(1.) In boiler or other furnaces, the method of improving the combustion of fuel by returning hot gases mingled with superheated steam from the back of the fire-bridge to the furnace, substantially as specified. (2.) In boiler or other furnaces, means for returning hot gases intermingled with superheated steam from the back of the fire-bridge to the furnace in the direction of the fire-door, substantially as and for the purpose set forth. (3.) In boiler or other furnaces, in combination, means for returning hot gases mingled with superheated steam from the back of the fire-bridge to the furnace towards the fire-door, means for superheating steam, and means for preventing the burning of the pipe connections and coil, substantially as set forth.

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

No. 14761.—17th April, 1902.—WILLIAM HENRY GORDON, of 69, Lyons Street South, Ballarat, Victoria, Engineer and Blacksmith. An improved hub or boss for fastening to a shaft any part of a machine that causes or is caused by the shaft to revolve.

Claims.—(1.) With hubs or bosses, a more efficient hub or boss for fastening to a shaft any part of a machine that causes or is caused by the shaft to revolve as described, substantially in the manner set forth. (2.) With hubs or bosses, a hub or boss that can more easily be fixed or adjusted to a shaft that causes or is caused by the shaft to revolve as described, substantially in the manner set forth. (3.) With hubs or bosses, a hub or boss that requires that no keyway need be cut into the shaft to which it is to be attached, but that will grip firmly and securely the plain, smooth shaft which causes or is caused by any part of a machine to revolve as described, substantially in the manner set forth. (4.) With hubs or bosses, a hub or boss that distributes the strain over a much greater surface of the shaft to which it is to be attached, and which it causes or is caused by to revolve as described, substantially in the manner set forth. (5.) With hubs or bosses, a hub or boss that will hold as firmly, and also in as true a bed, as a shrunken-on hub or boss of any part of a machine that causes or is caused by the shaft to which it is attached to revolve as described, substantially in the manner set forth.

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

No. 14881.—13th May, 1902.—THOMAS SCOTT MULLAY, of Invercargill, New Zealand, Sawmiller, and WILLIAM SIEVWRIGHT, of Gisborne, New Zealand, Solicitor. An improved preserving and antifouling composition or coating particularly applicable to the bottoms of ships and to wharf-piles.

Description of Invention.—The essential ingredient in the composition is tannin or tannic acid, found in the bark of all trees and in many plants in any locality in the world, all of which contain it in greater or less proportion; or the tannic extract of such barks obtained by soaking or decoction in any suitable liquid. The extract may be applied, of any desired strength, to the surface to be protected or preserved, either by itself or mixed with a pigment; but the preferable and simplest method is to reduce the bark to a powder or very finely pulverized or ground state and to mix it, in any proportions, with ordinary paint or pigment to give it consistency, and then paint it with an ordinary paint-brush on the bottoms of ships or vessels, or on the surface to be protected from marine insects or fouling. The composition may also be made up in an effective form by mixing the powdered or ground bark with rosin, oil, and plaster-of-paris, in such proportions as suits the particular surface to be protected. The extract, or the bark in the ground form, mixed with pulp, and manufactured into a kind of felt, and attached to the bottoms of ships or vessels, or covering any timber, will protect the same from the attacks of marine parasites and from fouling. The powdered bark, or the extract, is an effective insecticide for blight or destructive insect pests on fruit and other trees and plants, or on wooden structures and buildings, and may be applied by dusting or (in a liquid state) by brush or spray. It will, so applied, prevent the ravages of ants.

Claim.—That the powdered bark, or extract, obtained and applied in the manner specified, is a novelty, and is effective for the purposes specified.

(Specification, 1s.)

No. 14905.—23rd May, 1902.—The Honourable CHARLES ALGERNON PARSONS, of Heaton Works, Newcastle-on-Tyne, Northumberland, England, Engineer. Improvements in and relating to steam-turbine blades.

Claims.—(1.) In steam-turbines, rings of blades formed by the staving-up of the blade-tops into heads which, in conjunction, produce the effect of a continuous shrouding adapted to prevent steam-leakage, substantially as described.

(2.) In steam-turbines, rings of blades, the combination of blades similarly headed, joggled to overlap, and coacting to produce a practically continuous shrouding on both sides of the blade-ring, substantially as described. (3.) In steam-turbines, rings of blades, the combination of blades similarly headed to project on one side, joggled to overlap, and coacting to produce a practically continuous shrouding on the inlet sides of the blade-ring, substantially as described. (4.) In steam-turbines, rings of blades, the combination of blades similarly headed to project on one side, joggled to overlap, and coacting to produce a practically continuous shrouding on the exit side of the blade-ring, substantially as described. (5.) In steam-turbines, in combination, a set of blades supported on a rotatable drum, and headed to form a shrouding ring, said ring coacting with rubbing rings formed by the root-stops of a fixed ring of blades, substantially as described. (6.) In steam-turbines, a process of forming rings of blades, consisting in milling out grooves to receive the individual blades, folding over the interleaving teeth, and then turning off the resulting irregular edge to produce a shrouding to prevent steam-leakage, substantially as described. (7.) In steam-turbines, a ring of blades having heads adapted to produce continuous shrouding, combined with a second ring of blades having their roots secured by means o a caulking-strip, adapted to give a continuous abutting surface to prevent steam-leakage, substantially as described. (8.) In steam-turbines, a ring of blades provided with a shrouding formed of a perforated strip secured to the blades, substantially as described. (9.) In steam-turbines, a ring of blades provided with a shrouding formed by a set of overlapping segments of perforated strip secured to the blades, substantially as described. (10.) In steam-turbines, a shroud-ring adapted to prevent steam-leakage, secured to the blades by notching and binding, substantially as described. (11.) A method of securing steam-turbine blades in the drum and casing grooves, consisting in employing two complementary notched rings between which the blades are fastened by caulking, substantially as described. (12.) A method of securing steam-turbine blades in the drum and casing grooves, consisting in slitting the blade-roots, and bending one or both of the parts at angles to correspond with those of grooves in the gripping-faces of two notched rings which clamp the blades in position when caulked up, substantially as described. (13.) A method of securing steam-turbine blades in the drum and casing grooves, consisting in employing a grooved strip within which the blades are packed and secured by means of dovetailing or locking, then securing this strip with its blades into the drum and casing grooves by caulking, as set forth. (14.) A method of securing steam-turbine blades consisting in employing one or more perforated strips, into which the blades project, said blades and strips being both fastened in position by caulking, substantially as described. (15.) A method of securing steam-turbine blades consisting in employing one or more perforated strips into which the blades project, said blades and strips being both fastened by means of a caulking-strip, substantially as described.

(Specification, 12s. 6d.; drawings, 13s.)

No. 14916.—21st May, 1902.—JAMES ARCHER, of 17, Linwood Street, Hulme, Manchester, England, Cycle Engineer. Improvements in variable gearing for velocipedes and road motor vehicles.

Claims.—(1.) In variable gearing for velocipedes and road motor vehicles, a hub having an inner clutch-ring, a driver having clutch-teeth, also holes or notches at one end, a gear-ring also having clutch-teeth adapted to engage the clutch-teeth on the driver and hub, and said gear-ring also having an inner internal ring of gear-teeth, a planet cage comprising a tubular part and a series of studs and pinions, means for loosely coupling the said cage and gear-ring, clutch-teeth on the said tubular part, a cup-bearing for the said hub, clutch-teeth on the said cup-bearing, a fixed central axle for the hub, a fixed pinion on the said axle with which and the said gear-ring the pinions of the planet cage gear, and means for moving the planet cage and gear-ring to and fro within the hub, substantially as set forth. (2.) In variable gearing for velocipedes and motor road vehicles, a hub having an inner clutch-ring, a driver having clutch-teeth pawls carried by such driver, a clutch-disc having ratchet and clutch teeth, also holes or notches, a gear-ring having clutch and gear teeth, a planet cage comprising a tubular part and a series of studs and pinions, and said tubular part also having clutch-teeth, means for loosely coupling the planet cage and gear-ring, a hub cup-bearing having clutch-teeth, a fixed central axle for the hub, a fixed pinion on the said axle with which and the said gear-ring the pinions of the planet cage gear, and means for moving the planet cage and gear-ring to and fro within the hub, substantially as set forth. (3.) In variable gearing for velocipedes and road motor vehicles, a hub having pawls on its interior, a driver having clutch-teeth on its periphery and holes or notches on one end, a gear-ring having clutch-teeth, gear-teeth, and ratchet-teeth, and adapted to engage the said pawls on the hub and the teeth on the driver, a planet cage comprising a tubular part and a series of studs and pinions, means for loosely coupling the planet cage and gear-ring, clutch-teeth on the said tubular part, a cup-bearing for the hub having clutch-teeth, a fixed central axle for the hub, a fixed pinion on the said axle with which and the gear-ring the pinions of the planet cage gear, and means for moving the said planet cage and gear-teeth to and fro within the hub, substantially as set forth. (4.) In variable gearing for velocipedes and road motor vehicles, a hub, pawls in such hub, a driver having ratchet-teeth and clutch-teeth on its periphery, also holes or notches on one end, a gear-ring having ratchet, clutch, and gear teeth, a planet cage comprising a tubular part and a series of studs and pinions, and the said tubular part having clutch-teeth, means for loosely coupling the planet cage and gear-ring, a hub cup-bearing having clutch-teeth, a fixed axle for the hub and a pinion thereon, with which and the gear-ring the pinions of the planet cage gear, and means for moving the planet cage to and fro within the hub, substantially as set forth. (5.) In variable gearing for velocipedes and road motor vehicles, a hub having an inner clutch-ring or a series of pawls, a driver having one or more rings of clutch or ratchet teeth, and means intermediate for imparting motion to the hub in one or both directions, substantially as set forth. (6.) In variable gearing for velocipedes and road motor vehicles, a hub, a cup-bearing therefor having clutch-teeth, a fixed axle having a fixed pinion, a driver having one or more rings of clutch or ratchet teeth, and means intermediate for imparting a reduced speed to the hub in one or both directions, substantially as set forth. (7.) In variable gearing for velocipedes and road motor vehicles, a hub having an inner clutch-ring or a series of pawls, a driver with rings of gear, ratchet, or [and] clutch teeth, and [or] pawls, and means intermediate for imparting an increased speed to the hub in one or both directions, substantially as set forth. (8.) In variable gearing for velocipedes and road motor vehicles, a hub having inner clutch-rings, as set forth. (9.) In variable gearing for velocipedes and road motor vehicles, a driver having clutch and [or] ratchet teeth, and holes or notches on one end thereof, as set forth. (10.) In variable gearing for velocipedes and road motor vehicles, a planet cage comprising a tubular part having clutch-teeth and a series of studs and pinions, a gear-ring having gear-teeth with which such pinions mesh, also clutch or ratchet teeth or pawls, means for loosely coupling the planet cage to the gear-ring, and means for moving the same to and fro within the hub and along a fixed pinion, substantially as set forth. (11.) A planet cage comprising a tubular part and a series of studs and pinions, clutch-teeth on one end, and means for moving it to and fro, substantially as and for the purposes set forth. (12.) A gear-ring having a ring of gear-teeth and rings of clutch-teeth, or ratchet-teeth and clutch-teeth only, or pawls and clutch-teeth, substantially as and for the purposes set forth. (13.) A driver having clutch-teeth only, or clutch and ratchet teeth or pawls, substantially as and for the purposes set forth. (14.) A driver having clutch-teeth and ratchet-teeth, a boss with recesses, pawls in such recesses, and a clutch-disc with ratchet-teeth mounted on the said boss, substantially as and for the purposes set forth. (15.) A fixed hollow and slotted axle with fixed pinion, a gear-ring gearing with the said axle, and capable of lateral movement along the said axle-pinion, substantially as and for the purposes set forth. (16.) A hub cup-bearing having clutch-teeth, substantially as and for the purposes set forth. (17.) Ball-race rings fitting into and removable from the end of a hub, as set forth. (18.) A hub clutch-ring with ball-race on one end, as set forth. (19.) A hub having pawls upon its interior, and a driver having ratchet-teeth, substantially as and for the purposes set forth. (20.) A hub having pawls upon its interior, a gear-ring having ratchet and clutch teeth or pawls, and means for rotating said ring, substantially as and for the purposes set forth. (21.) A quadrant plate having lateral recesses and lips, means for attaching such plate to the frame of a velocipede or motor vehicle, a lever-handle carried by said means and connected to a cord or chain, substantially as and for the purposes set forth.

(Specification, 9s. 6d.; drawings, 4s.)

No. 14917.—21st May, 1902.—WILLIAM HUCKS, Jun., of 22, Oval Road, Camden Town, London, England, Engineer. Improvements in apparatus for use in dispensing aerated liquid.

Claims.—(1.) In aerated-liquid-dispensing apparatus of the class wherein an intermediate receptacle is used, the combination with the closing and charging devices of a casing for receiving an intermediate receptacle, and a pressing-device such as the lever C, by means of

which the intermediate receptacle in the said casing is pressed against the closing-device and caused to operate the charging-device, substantially as described. (2.) In aerated-liquid-dispensing apparatus of the class wherein an intermediate receptacle is used as aforesaid, the combination with the closing and charging devices of a casing for receiving an intermediate receptacle, and a pressing-device such as the lever C, by means of which the intermediate receptacle in the casing is pressed against the closing-device and caused to operate the charging-device, the said casing being provided with means for catching expelled liquid and allowing it to run off clear of the operator and surroundings, substantially as described. (3.) In aerated-liquid-dispensing apparatus of the class wherein an intermediate receptacle is used as aforesaid, the combination with the closing and charging devices of a casing for receiving an intermediate receptacle, and a pressing-device such as the lever C, by means of which the intermediate receptacle in the casing is pressed against the closing-device and caused to operate the charging-device, the said lever being provided with a counterweight or a spring arrangement preventing the said intermediate receptacle from suddenly leaving the closing-device, substantially as described. (4.) In aerated-water-dispensing apparatus of the class wherein an intermediate receptacle is used as aforesaid, the combination with the closing and charging devices of a casing for receiving an intermediate receptacle, and a pressing-device such as a lever C, by means of which the intermediate receptacle in the casing is pressed against the closing-device and caused to operate the charging-device, the said casing being provided with means for catching a projection on the intermediate receptacle, so as to prevent the said receptacle leaving the closing-device suddenly, substantially as described. (5.) In aerated-water-dispensing apparatus of the class wherein an intermediate receptacle is used as aforesaid, the combination with the closing and charging devices of a casing for receiving an intermediate receptacle and a pressing-device such as a lever C, by means of which the intermediate receptacle in the casing is pressed against the closing-device and caused to operate the charging-device, the said casing being provided with a reversible elastic sleeve or funnel, by which liquid expelled is returned to the receptacle, substantially as described. (6.) In aerated-water-dispensing apparatus of the class wherein an intermediate receptacle is used as aforesaid, the combination with the closing and charging devices of a casing for receiving an intermediate receptacle, and a pressing-device such as a lever C, by means of which the intermediate receptacle in the casing is pressed against the closing-device and caused to operate the charging-device, the said casing being provided with a sliding funnel by which liquid expelled is returned to the receptacle, substantially as described.

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

No. 14920.—26th May, 1902.—ALFRED COOPER, of Adelaide Road, Wellington, New Zealand, Dairyman. An improved wheel-lock.*

Claims.—(1.) The wheel-lock consisting of the parts arranged, combined, and operating substantially as described, and illustrated in the drawing. (2.) Apparatus for locking two wheels of a vehicle simultaneously, consisting in the combination of a hand-lever fixed upon a rocking-shaft which carries an arm connected by a link with a sliding-rod, pivoted levers connecting said rod with bolts, which when said hand-lever is operated are projected between the spokes of the wheels, substantially as specified and illustrated. (3.) In apparatus for locking two wheels of a vehicle simultaneously, in combination, a sliding-rod to the end of which levers are pivotally attached, arranged to operate bolts projecting between spokes of the wheels of the vehicle, and means for operating said sliding-rod from a hand-lever, substantially as specified.

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

No. 14922.—26th May, 1902.—WILLIAM JOHN PROUSE, of Wellington, New Zealand, Timber-merchant. An improved bevelled rebated weatherboard.

Claim.—A tapering weatherboard having a single groove upon its outer face near the top edge and a corresponding tongue formed within a rebated recess at the bottom of its inner face, said recess being shaped to correspond with the outline of the upper part of the board, substantially as and for the purposes specified and illustrated.

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

No. 14925.—22nd May, 1902.—PIERCE LANIGAN, of Grey Lynn, Auckland, New Zealand, Contractor. An improved machine for cutting and shaping stone.

Claim.—In a stone-cutting machine of the kind specified, in combination, the outer and inner guides fixed to the under block and H-iron frame, upper block fitted to and working in and on said guides, upper knife or chisel shaped and adjusted to said upper block so as to be swung to suitable angles with its sharpened edge pointing downwards, under knife or chisel shaped and adjusted to said under block so as to be set to suitable angles with its sharpened edge pointing upwards, the edge of the upper knife directly over the edge of the under knife and in the same line, said under block holding said under knife and supporting said outer guide and H-iron frame carrying inner guide-pieces, cushioned buffer fitted between said guide-pieces and resting on said under block, table having its outer end stationary and its inner end loosely fitted close up to the under knife or altogether movable and with or without one or more knives thereon, compression springs and rod adjusted to under part of said inner end of table and to under block, and flat piece perforated and cut out fitted to side of said table, all in conjunction with any suitable form of power, for the purpose set forth, substantially as described and illustrated.

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

No. 14926.—27th May, 1902. — FRANCIS PEGLER, of Greymouth, New Zealand, School-teacher. An improved ruler.

Claims.—(1.) An improved ruler constructed substantially as described, and illustrated in the drawing. (2.) A ruler of approximately triangular section, having an edge to be used as a guide in ruling lines projecting from the angle which is uppermost when the ruler is in operative position, substantially as specified and illustrated.

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

No. 14929. — 27th May, 1902. — RICHARD NICHOLAS, of Christchurch, New Zealand, Engineer. Improvements in mechanism more particularly applicable to windmills.

Claims.—(1.) In mechanism of the class described, means for holding the connecting-rod pin, which consists of forming a boss or bosses upon the face or faces respectively of the forked end of the connecting-rod, and a rib through which a split-pin passes to pierce said connecting-rod pin, as described and illustrated. (2.) In mechanism of the class described, the specially constructed bearing for the connecting-rod pin, consisting of a casting as F that is adapted to nearly envelop said pin, and which is provided with a flat upon its rear part and a set-screw as *f*, as described and illustrated, and for the purposes set forth. (3.) In mechanism of the class described, mounting the vane of a windmill at a point not in the same straight line as the axis of the mill-wheel spindle, as shown, and inclining the vane-rod slightly outwards so as to make with such axis a slightly acute angle, as described, and for the purposes set forth.

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

No. 14931.—29th May, 1902.—ELLIOT'S PATENT LOCK ENVELOPE COMPANY (LIMITED), a company registered according to the laws of the State of New South Wales, having their office at 70, Pitt Street, Sydney, New South Wales (assignee of Robert Newton Elliot, of "Woodbrooke," Lindfield, near Sydney aforesaid, Financial Broker). Improvements in stationery-envelopes.

Claims.—(1.) A blank for stationery-envelopes having an extension or tongue on one flap with adhesive under-side, and orifices or slits in the other flaps adapted when said flaps are folded to form one combined orifice or slit for the insertion therethrough of said tongue, substantially as described and explained. (2.) A blank for stationery-envelopes having an extension or tongue on either end flap with adhesive under-side, and a set of orifices or slits in the other flaps adapted to form combined orifices or slits for each of the said tongues to pass therethrough, substantially as described and explained. (3.) Improved stationery-envelopes constructed in the manner and for the purposes substantially as described and explained, and as illustrated in Figs. 1, 2, and 3 of the drawings. (4.) Improved stationery-envelopes constructed in the manner and for the purposes substantially as described and explained, and as illustrated in Figs. 4, 5, 6, and 7 of the drawings.

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

No. 14933.—29th May, 1902.—GEORGE WILLIAM BERRY, of 99, Merton Street, Albert Park, near Melbourne, Victoria, Tinsmith. Improved apparatus for soldering or joining the seams of can-bodies.

Claims.—(1.) In apparatus for soldering or joining the seams of can-bodies, cylinders of the diameter of the can-bodies mounted on upright brackets on a horizontal bar, in

combination with movable curved spring clamps or grips, and means for causing same to grip and release the can-body, substantially as set forth. (2.) In apparatus for soldering or joining the seams of can-bodies, laterally adjustable and movable curved spring clamps or grips, substantially as set forth. (3.) In apparatus for soldering or joining the seams of can-bodies, curved spring clamps or grips mounted on a pair of transverse bars fitted with coiled springs, in combination with an operating bell-crank, substantially as set forth. (4.) In apparatus for soldering or joining the seams of can-bodies, a pair of reciprocating ejector-wires arranged one on each side of each cylinder, substantially as set forth. (5.) In apparatus for soldering or joining the seams of can-bodies, ejector-mechanism consisting of levers operating a reciprocating traveller, having a spring hook in combination with an inclined sliding block on a guide-rail, a releasing-lug, and a returning spring coiled round the guide-rail, substantially as set forth. (6.) In apparatus for soldering or joining the seams of can-bodies, a pair of ejector-wires mounted adjustably in short standards between a pair of transverse bars, blocks thereon, guide-rails for said blocks, and a coiled returning spring in combination with a lever-operated traveller, having a spring hook, guide-rails therefor, and a rigid releasing-lug, substantially as set forth. (7.) In apparatus for soldering or joining the seams of can-bodies, a pair of laterally adjustable and vertically moving inclined slate or aluminium guide-plates mounted on pillars on a horizontal bar connected to a vertically sliding rod, substantially as set forth. (8.) In apparatus for soldering or joining the seams of can-bodies, a cylinder having a pair of spring lugs or pins arranged in line and normally projecting through said cylinder, in combination with means for depressing same when the can-body is in position, substantially as set forth. (9.) In apparatus for soldering or joining the seams of can-bodies, a cylinder having stop-pins, against which the end of the can-body abuts, and a hook to temporarily keep them down until the guide-plates are lowered, substantially as set forth. (10.) In apparatus for soldering or joining the seams of can-bodies, a horizontally reciprocating carrier having a vertically moving parallel bar supporting the heating-irons, and means for guiding, depressing, and raising same, substantially as set forth. (11.) In apparatus for soldering or joining the seams of can-bodies, the combination with a horizontally reciprocating carrier of a parallel bar supporting the heating-irons and moving vertically upon upwardly projecting guide-pins thereon, adjustment bolts or stops to regulate the amount of vertical play, cams on a spindle operated by a crank to depress said parallel bar, and springs for raising same, substantially as set forth. (12.) In apparatus for soldering or joining the seams of can-bodies, the combination with an inclined tray at the rear, to contain bars of solder, of a cutter actuated by a lever-arm and connecting-rod when the guide-plates are depressed, and chutes leading thereto, substantially as set forth. (13.) In apparatus for soldering or joining the seams of can-bodies, a cylinder having a small strip of slate or aluminium let into the surface, substantially as described and illustrated. (14.) In apparatus for soldering or joining the seams of can-bodies, a cylinder having slightly curved ends and a hole at the top, substantially as set forth. (15.) In apparatus for soldering or joining the seams of can-bodies, a cylinder having a feathered lug fitting into a corresponding hole in an upright bracket and secured by a nut, substantially as set forth. (16.) In apparatus for soldering or joining the seams of can-bodies, the combination with vessels (corresponding in number with the irons) containing weak acid, of arms carrying said vessels, and operative hand-levers pivoted to brackets on the side supports of the machine, substantially as set forth.

(Specification, 9s.; drawings, 5s.)

No. 14934.—29th May, 1902.—WILLIAM RODIER, of Cobar, New South Wales, Grazier. An improved trap for rabbits and like animals.

Claim.—The combination in an animal-trap of a gate or body portion made of openwork, a vestibule portion therein made of sheet metal, a drop-gate in such vestibule portion, a chocking-piece such as F for holding up the drop-gate, a trigger or releasing-piece H for withdrawing the chocking-piece and releasing the drop-gate, and a releasing-door, substantially as described.

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

No. 14940.—28th May, 1902.—WILLIAM WYLIE, of Greymouth, New Zealand, Engineer. Improved picks or grab-hooks for dredges.

Claims.—(1.) In dredges having a line or chain of buckets, with some picks or grab-hooks in the chain, the combination of deeper links as part of the picks or hooks, and taper links to the depth of the other links of the chain, with the chain and buckets, all substantially as set forth, and as shown in the drawing. (2.) In combination, a pick or grab-hook in a line of dredge-buckets having deeper links than the ordinary links, for the purpose of pushing out the picks beyond the line of the bucket-points when passing a tumbler, and allowing the points of the picks to come into line with the points of the buckets when passing the delivery-plate, with taper links or the pick links being tapered to pass the ladder-rollers, all substantially as set forth, and illustrated in the drawing.

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

No. 14950.—30th May, 1902.—FRED LOBNITZ, of Clarence House, Renfrew, Scotland, Engineer and Shipbuilder. Improvements connected with rock-cutting apparatus.

Claims.—(1.) In rock-cutting apparatus, utilising the natural slackening or kinking of the hoisting-rope which occurs each time the cutter strikes the rock, to actuate mechanism whereby the clutch of the hoisting-winch is instantaneously and automatically applied, substantially as set forth. (2.) In a rock-cutting apparatus, the combination of a rock-cutter, a rope or its equivalent for raising the rock-cutter, a hoisting-winch, a clutch on the winch, and means (operated by the slackening or kinking of the rope each time the cutter strikes the rock) for automatically applying the clutch, substantially as set forth. (3.) The apparatus for automatically applying the clutch of the hoisting-winch, substantially as described and shown at Figs. 3, 4, 5, and 5*a* of the drawings. (4.) The apparatus for automatically applying the clutch of the hoisting-winch, substantially as described, and shown at Figs. 6 and 7 of the drawings.

(Specification, 4s. 6d.; drawings, 3s.)

No. 14951.—4th June, 1902.—GEORGE FELL HUTCHINSON, Carpenter, and GERALD WILLIAM SYMMANS, Carpenter, both of Kapuni, Taranaki, New Zealand. Improvements in or relating to kerosene-siphons.

Claims.—(1.) In kerosene-siphons and the like, a plate formed with a turned-down top edge, secured to the top end of the outer leg of the siphon, and a spring clip attached to the lower end of such leg, the turned-down edge of the plate and the spring clip being respectively adapted to grip and hold upon the top and bottom edges of the kerosene-receptacle so as to secure the siphon thereto, as specified. (2.) In kerosene-siphons and the like, a delivery-tube hinged to the lower end of the outer leg of the siphon so as to be free to move up and down in a vertical plane, such delivery-tube being provided with a nozzle at its top end, as specified. (3.) In kerosene-siphons and the like, a delivery-tube hinged to the lower end of the outer leg of the siphon so as to be free to move up and down in a vertical plane, such delivery-tube being provided with a nozzle at its top end, and a small tube opening into the top end of the delivery-tube, whereby the air within the siphon may be exhausted, as set forth. (4.) The general arrangement, construction, and combination of parts in our improvements in or relating to kerosene-siphons, as described and explained, as illustrated in the drawings, and for the several purposes set forth.

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

No. 14956.—5th June, 1902.—EDWIN RUTHVEN CAHOONE, of Newark, New Jersey, United States of America, Gentleman. Improvements in stoves.

Claims.—(1.) A stove, comprising a casing, a fire-pot, a magazine, and an independent adjustable packing connection. (2.) A stove, comprising a casing, a fire-pot, a fuel-magazine, a supporting ring in the upper end of said casing to support the magazine, and an independent adjustable connection. (3.) A stove, comprising a casing, a magazine, a fire-pot, one or more tubes for introducing air to the fuel in the fire-pot, means for supporting the tubes with heated air, and independent chambers formed above the upper end of each of the tubes and above the means for supporting the tubes. (4.) In a stove, tube or tubes, a support for the same, and means located above the support to prevent the heat rising therefrom deflecting air entering said tubes. (5.) A down-draught stove, comprising a casing, a fuel-magazine, a fire-pot, a support, tubes hung in the support, a cover, and independent auxiliary chambers located between the outer ends of the tubes and the cover. (6.) A stove, comprising a casing, a fire-pot, air-heating chambers arranged to receive the ascending heated air surrounding the stove, and means for delivering said heated air through the fuel. (7.) A stove, comprising a casing, a fire-pot, a flue, a space being formed between said casing and fire-pot, a fuel-support, a flue, an air-heating chamber in proximity to said fire-pot, auxiliary air-heating chamber, ducts connecting said latter air-heating chambers and the air-heating chamber in proximity to the fire-pot, said ducts being located be-

tween the casing and fire-pot in the path of the escaping gases. (8.) A stove, comprising a casing, a fire-pot, a fuel-support, an air-heating chamber in proximity to the fire-pot, auxiliary air-heating chambers, a second set of auxiliary air-heating chambers, and tubes depending therefrom toward the bed of fuel to direct currents of heated air therethrough. (9.) A stove, comprising a casing, a fire-pot, a fuel-support, an air-heating chamber in proximity to said fire-pot, auxiliary air-heating chambers, a deflector adapted to deflect the ascending heated air surrounding the stove to said chambers, and tubes depending from said chambers toward the fuel to direct currents of heated air through the fuel-bed. (10.) A heating-stove, comprising a casing, a fire-pot, a fuel-support, a flue, a perforated air-heating chamber in proximity to and surrounding the fire-pot, two sets of auxiliary air-heating chambers in the stove-top, deflectors arranged to deliver air to one set of said chambers, means connected to said chambers for delivering heated air-currents downwardly through the fuel, the second set of auxiliary chambers being supplied with air from the top, and ducts connecting said latter chambers with the air-heating chamber located in proximity to the fire-pot. (11.) In a stove, the combination with a fire-pot, a fuel-support, said fire-pot being constructed of a series of pendant portable weighted bars, and means for supporting said bars. (12.) In a stove, the combination with a fire-pot which consists of a plurality of bars having lugs, an air-heating chamber having air-exits, said bars being supported and locked in position by the air-heating chamber. (13.) A stove, comprising a casing, a fire-pot, said pot being constructed of a series of pendant portable bars, and a support on which the bars are hung, each bar being provided with means for engaging the support, and being held in position thereto by its lower weighted end. (14.) A down-draught stove, comprising a casing, a fire-pot, a magazine provided with a series of air-pockets, and slotted plates covering said pockets to prevent the fuel falling therein, and at the same time admit the free ingress and egress of air-currents to and around the fuel. (15.) A stove, comprising a casing, a fire-pot, and a series of combined air-introducers and sight openings communicating with said fire-pot at a point where the fuel becomes incandescent. (16.) A stove, comprising a casing, a fire-pot, a fuel-magazine, said magazine having one or more air-pockets, and a series of air-introducers in the fire-pot below said pockets. (17.) A stove, comprising a casing, a fire-pot, a magazine having air-pockets, tubes depending toward the bed of the fuel, and a series of air-introducers in the fire-pot at a point where the fuel is incandescent. (18.) A stove, comprising a casing, a fire-pot, said fire-pot being constructed in two sections, the upper section being grooved vertically, the grooves tapering from the top toward the bottom, and the lower section being made up of a series of portable bars, means for supporting the upper section, and means for supporting the pendant portable bars. (19.) A stove, comprising a casing, a fire-pot, a magazine, a space being formed between said fire-pot and magazine and the casing, a flue at the upper end of said space, tubes having individual air-heating chambers, said tubes directing currents of heated air downwardly through the fuel-bed, an air-heating chamber surrounding the fire-pot, air-heating chambers adapted to receive the ascending heat which surrounds the stove, ducts connecting the latter chambers and the air-heating chamber surrounding the fire-pot, an adjustable packing connection interposed between either the meeting edges of the fire-pot and magazine, or the two sections of the fire-pot, air-pockets in the magazine for delivering currents of heated air through the fuel, and means for introducing currents of heated air into the body of fuel where it is incandescent. (20.) In a stove, a fire-pot having its upper edge provided with a pocket, a magazine having a lug to fit said pocket, and an adjustable ring for packing the joints of said pocket. (21.) In a stove, a fire-pot, an air-heating chamber surrounding the same, air-exits being formed in said chambers, pendant bars supported by said chamber forming intermediate spaces between each other, baffle-plates in the chamber, and means for supplying the chamber with heated air. (22.) In a stove, a casing, a main exit-flue, a shield surrounding the casing to form an air-heating space, an auxiliary flue connecting the main flue, and located in said space, and a damper to direct the escaping gases either through the main flue or the auxiliary flue. (23.) In a stove, a fire-pot, and a device for introducing heated air thereto, said device consisting of two frames, a space being formed therebetween which is open at both ends, and a perforated sheet located in the interior casing to break the air.

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

No. 14957.—5th June, 1902.—WILLIAM JOSEPH DIBDIN and HERMAN CHARLES WOLTERECK, of Edinburgh Mansions, Howick Place, Victoria Street, London, S.W., England, Consulting Chemists. Process of manufacturing illuminating or heating gas.

Claims.—(1.) The continuous process of producing illuminating or heating gas which consists in passing a mixture of superheated steam and hydrocarbons over metal adapted to act as a carrier of oxygen by most intimate contact at a high temperature, as set forth and described. (2.) The process of producing illuminating or heating gas which consists in passing a mixture of superheated steam and hydrocarbons over metal continuously heated to a high temperature and adapted to act as a carrier of oxygen by most intimate contact, as shown and described. (3.) The process of producing illuminating or heating gas which consists in decomposing steam in the presence of hydrocarbon by most intimate contact with a suitable metal at a high temperature, producing hydrogen, methane, and carbonic acid, as set forth and described. (4.) The process of producing illuminating or heating gas which consists in decomposing steam and hydrocarbons by means of most intimate contact with metal adapted to act as a carrier of oxygen, and producing hydrogen, carbonic acid, and other products of decomposition of the higher hydrocarbons, both by oxidation and reduction, substantially as shown and described.

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

No. 14970.—7th June, 1902.—WILLIAM S. AYSON, of Wyndham, Southland, New Zealand, Farmer. Improvements in washing-boards.

Claim.—In washing-boards, a hollow frame upon the top end of the board, and divided into halves, each half being covered on alternate sides of the board by means of covering-pieces, so that receptacles for soap and the like will be formed upon each side of the board, as specified.

(Specification, 1s. 9d.; 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, 11th June, 1902.

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

No. 14842.—5th May, 1902.—CHARLES TANDY, of Taranaki Street, Wellington, New Zealand, Coachbuilder. Improved tire for vehicle-wheels.

No. 14882.—16th May, 1902.—UNITED SHOE MACHINERY COMPANY, of Paterson, New Jersey, United States of America, a corporation duly organized under the laws of the State of New Jersey, and having their principal place of business at 205, Lincoln Street, Boston, Massachusetts, United States of America (assignees of Edward Allin Stiggins, of Beverly, Massachusetts aforesaid, Inventor). Improvements in lasting-machines.

No. 14893.—16th May, 1902.—GEORGE GUBBINS, of Prince Edward Road, South Dunedin, New Zealand, Machinist, and THOMAS GUBBINS, of Vogel Street, South Dunedin aforesaid, Labourer. Improved bicycle-support.

No. 14901.—17th May, 1902.—CHARLES HENRY SHATTKY, of Hastings, Hawke's Bay, New Zealand, Settler. Improvement in fixing and securing spotting discs for canvas or paper targets.

No. 14913.—24th May, 1902.—FRED MATTHEWS, of 8, Rintoul Street, Wellington, New Zealand, Dairyman. An improved means of preventing horses running away with vehicles.

No. 14919.—21st May, 1902.—JULIUS FREDERIK STEENBERG, of 55, King Street, Dunedin, New Zealand, Dairy Expert. Improved butter-moulder.

No. 14921.—26th May, 1902.—THOMAS RUSSELL, of Carlyle Street, Sydenham, near Christchurch, New Zealand, Foreman of Works. Improved street-sweeping machine.

No. 14924.—26th May, 1902.—FREDRICK AUGUSTUS MILLER, of Ross Place, Lawrence, Otago, New Zealand, Builder. An improved knife-cleaner.

No. 14927.—23rd May, 1902.—JOHN ERNEST ARTHUR FROST, of Albany, near Auckland, New Zealand, Settler. An improved spindle or shank attachment for door-knobs and suchlike.

No. 14930.—29th May, 1902.—JOHN JAMES COLLINS and RICHARD DACRE HARMAN, both of 203, Gloucester Street, Christchurch, New Zealand, Architects. Composition for rendering brick and stone work impervious to water.

No. 14932.—29th May, 1902.—CORNELIUS JOHN SHIPWAY and HENRY MAY, both of Meningie, South Australia, Inventors. Improvements in sheep-shears.

No. 14936.—28th May, 1902.—HERBERT MCCLELLAND INGLIS, of Cheviot, New Zealand, Physician. An improved index file or clip for documents.

No. 14937.—28th May, 1902.—FRANK LINDSAY RYAN, of Christchurch, New Zealand, Manufacturer. Improved apparatus for use in playing table-tennis.

No. 14938.—26th May, 1902.—HENRY NICHOL, of Invercargill, New Zealand, Clerk. Improvements in shears.

No. 14939.—30th May, 1902.—THOMAS TAPLIN, of Dannevirke, Hawke's Bay, New Zealand, Surveyor. Improved apparatus in which compressed air is employed for raising liquids to a high level.

No. 14941.—28th May, 1902.—ROBERT CALDWELL, of Mount Roskill, near Auckland, New Zealand, Engineer. A flap attachment to vehicles for protecting the clothing of wearers from mud and dust on wheels.

No. 14943.—31st May, 1902.—WILLIAM GEORGE GEARY, of Weraroa, New Zealand, Butcher. An improvement in martingales.

No. 14944.—31st May, 1902.—ELIZABETH MILSOM, of King Street, Rangiora, New Zealand, Spinster, and JOHN STEWART, of High Street, Rangiora aforesaid, Gentleman. Improvements relating to venetian-blinds.

No. 14945.—31st May, 1902.—GEORGE FREDERICK DALE, of Lichfield Street, Christchurch, New Zealand, Lithographer. Improved scoring-apparatus for tennis, ping-pong, and similar games.

No. 14948.—30th May, 1902.—GEORGE ERNEST PRUDEN, of Christchurch, New Zealand, Carpenter. An improved cramp utilisable as a flooring-cramp and for other analogous purposes.

No. 14949.—30th May, 1902.—FRANK LINDSAY RYAN, of Christchurch, New Zealand, Manufacturer. Improvements in apparatus for use in playing table-tennis or ping-pong.

No. 14952.—4th June, 1902.—JOHN DOUGLAS KELLY, Engineer, and DAVID PERCIVAL FISHER, Engineer, and NOEL VIVIAN GIBSON WIX, Engineer, all of Wellington, New Zealand. An improved method of and means for ventilating halls, theatres, and other places of public resort.

No. 14953.—4th June, 1902.—FRED MATTHEWS, of 8, Rintoul Street, Wellington, New Zealand, Dairyman. Improved combined horse-stopper and lock for a wheel of a vehicle.

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

No. 14958.—5th June, 1902.—FRANCIS EDWARD ROGERS and EBENEZER HOSKING, both of Commercial Street, Mount Gambier, South Australia, Ironworkers. An improved spark-arrester.

No. 14959.—6th June, 1902.—THOMAS RICHARD PORTER, of 2, Oak Grove, Hankey Street, Wellington, New Zealand, Heliograph Instructor. Improved axe-head.

No. 14960.—6th June, 1902.—AUGUST LYELL, of Palmerston North, New Zealand, Inventor. A combined filter and butter-cooler.

No. 14961.—6th June, 1902.—AUGUST LYELL, of Palmerston North, New Zealand, Inventor. A candlestick, match-box, and striker combined.

No. 14962.—6th June, 1902.—AUGUST LYELL, of Palmerston North, New Zealand, Inventor. An improved portable race-starting gate.

No. 14963.—6th June, 1902.—AUGUST LYELL, of Palmerston North, New Zealand, Inventor. An improved egg-cup.

No. 14964.—6th June, 1902.—AUGUST LYELL, of Palmerston North, New Zealand, Inventor. An improved butter-dish.

No. 14965.—6th June, 1902.—SIDNEY SOFFE, of Russell Terrace, Wellington, New Zealand, Cabinetmaker. A new or improved reservoir attachment to washstands.

No. 14967.—4th June, 1902.—WILLIAM BORLASE, of Manders Road, North-east Valley, Dunedin, New Zealand, Cycle Mechanic. An improved hat-fastener.

No. 14968.—5th June, 1902.—MARIA LOUISA HUMM, of Waddington, New Zealand, Married Woman. An improved fastening-device for dress collars and for other similar purposes.

No. 14971.—7th June, 1902.—ALBERT HARDING PORTER, of Waihi, Auckland, New Zealand, Medical Practitioner, and CHARLES JAMES ADAMS GRAHAM, of Waihi aforesaid, Agent. Improvements in fire-grates.

No. 14972.—7th June, 1902.—HARRY GREGG GRINLINTON, of Devonport, Auckland, New Zealand, Saddler. Improved means for the propulsion of cycling-machines.

No. 14973.—7th June, 1902.—CHARLES HENRY GREENHEAD, of Waiuku, Auckland, New Zealand, Farmer. An improved alarm attachment for doors, windows, and the like.

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 29th May, 1902, to the 11th June, 1902, inclusive:—

No. 13432.—F. Kettle, wool-scouring machine.
No. 13469.—J. Downs, spark-arrester.
No. 13939.—D. Levat, dredges.
No. 14116.—R. D. L. Duffus, rat-trap.
No. 14227.—W. E. Hughes, concrete-mixer (F. B. Gilbreth).
No. 14464.—G. J. Perotti, amalgamator.
No. 14494.—G. Westinghouse, treating copper-ores (W. J. Knox).
No. 14501.—W. E. Hughes, engine shaft-bearing (C. Robinson).
No. 14576.—H. B. Cary, voting-machine.
No. 14588.—G. D. Ross, railway-points.

F. WALDEGRAVE,
Registrar.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

NO. 10626.—W. K. Hazlett, drain-plough.
No. 10688.—J. Whitefield and F. S. Parker, closet-pan.
No. 10690.—W. Humble and W. Nicholson, baling-press.

THIRD-TERM FEE.

No. 7696.—The Diamond Match Company, making wax matches (E. B. Beecher and J. P. Wright).

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. 13861.—Helen Stuart, Artist, and Sarah Ann Cranwell, Spinster, both of View Road, Mount Roskill, near Auckland, in the Provincial District of Auckland, in the Colony of New Zealand, bridle and bit. [S. Van Buskirk.] 7th June, 1902.

F. WALDEGRAVE,
Registrar.

Request for Correction of Clerical Error.

NO. 13845.—J. Dunn, root cutter and slicer. (Advertised in Supplement to *New Zealand Gazette*, No. 38, of the 15th May, 1902.)

To correct the following clerical error in the drawings: The dished disc (2) to be shown reversed, so that the concave side shall be downwards.

F. WALDEGRAVE,
Registrar.

Request to amend Application and Specification allowed.

THE request to amend application and specification No. 14303—T. Farrer, window-fastener (advertised in Supplement to *New Zealand Gazette*, No. 27, of the 3rd April, 1902)—has been allowed.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent abandoned.

LIST of Applications for Letters Patent (with which provisional specifications only have been lodged) abandoned from the 29th May to the 11th June, 1902, inclusive:—

No. 13866.—J. Roussell, attaching breeching to saddle.
No. 13867.—W. Brown, oil, vapour, or gas engines.
No. 13868.—T. F. Davis and F. Evans, non-refillable bottle.
No. 13870.—F. Sampson, beds or lounges.
No. 13871.—E. T. Watts, hairpin.
No. 13873.—B. Howard, leaf-holding device.
No. 13881.—T. F. Brown, briquette.
No. 13882.—C. E. May, necktie.
No. 13883.—A. A. Kron, utilising waste leather.
No. 13884.—T. Hyde, acetylene-gas generator.
No. 13885.—C. Burridge and H. Brown, saw.
No. 13886.—J. Creighton, jun., rabbit-trap.
No. 13887.—S. E. Wright, bicycle-chain guard.
No. 13892.—E. Bowmar, seed-sowing canister.
No. 13896.—A. Cass, knife for water-race plough.
No. 13897.—F. M. Norris, door-check.
No. 13899.—J. B. Newton, clothes-press.

F. WALDEGRAVE,
Registrar.

Applications for Letters Patent lapsed.

LIST of Applications for Letters Patent (with which complete specifications have been lodged) lapsed from the 29th May to the 11th June, 1902, inclusive:—

No. 13204.—E. S. McRae, medicinal drink.
No. 13205.—E. S. McRae, embrocation.
No. 13214.—J. Anderson, salt-sprinkler for butter.
No. 13228.—N. Jensen, wire-strainer.
No. 13229.—A. M. Hendy, fire-grates.
No. 13234.—J. F. Corrick, elevator or conveyer.

F. WALDEGRAVE,
Registrar.

Letters Patent void.

LIST of Letters Patent void through non-payment of fees from the 29th May to the 11th June, 1902, inclusive:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

No. 10404.—C. A. Nielsen, fishing-gear.
No. 10405.—G. S. MacKenzie, extraction of marketable commodities from meat-waste liquors (L. A. Geddes).
No. 10408.—C. E. Dean, hinge.
No. 10412.—J. Anderson, flange for copper boilers.
No. 10415.—D. Roche, raising and lowering fire-escapes.
No. 10421.—Etothene Gas Company, illuminating-gas (E. Tooth).
No. 10422.—Etothene Gas Company, carbide of calcium (E. Tooth).
No. 10423.—T. Grundy, safety releasing-device.
No. 10425.—T. Holliday, acetylene lamp.
No. 10426.—R. C. Trevor, varnish.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

No. 7468.—W. J. Minter and J. Sanders, pocket-knife.
No. 7471.—J. Wiseman and J. Wiseman, horse-cover.

F. WALDEGRAVE,
Registrar.

Designs registered.

DESIGNS have been registered in the following names on the dates mentioned:—

No. 156.—Richard Nicholas, of Christchurch, New Zealand, Engineer. Class 1. 29th May, 1902.
No. 157.—Turnbull, Hickson, and Gooder, of Jervois Quay, Wellington, New Zealand, Lithographic Printers. Class 5. 6th June, 1902.

F. WALDEGRAVE,
Registrar.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, 11th June, 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: 3703.
Date: 13th March, 1902.

TRADE MARK.

The word

GRANITE.

NAME.

VACUUM OIL COMPANY, incorporated under the laws of the State of New York, having its principal office at Rochester, in the said State, United States of America; 31, Queen Street, Melbourne, Victoria; 31, Victoria Street, Wellington, New Zealand; and elsewhere.

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

No. of application: 3787.
Date: 16th May, 1902.

TRADE MARK.

NAME.

CRUCIBLE STEEL COMPANY OF AMERICA, a corporation duly organized under the laws of the State of New Jersey, and located at Jersey City, in said State, and doing business in said city and elsewhere in the United States.

No. of class: 5.
Description of goods: Steel, and steel blanks, forms, shapes, and parts for manufactured articles.

No. of application: 3789.
Date: 22nd May, 1902.

TRADE MARK.

NAME.

GOLLIN AND COMPANY PROPRIETARY, LIMITED, of Melbourne, Victoria; Sydney, New South Wales; Adelaide, South Australia; and Wellington, New Zealand; Merchants.

No. of class: 42.
Description of goods: Tinned or canned and dried or preserved fish, tinned or canned meats, fruits, and other tinned or canned food products.

No. of application: 3802.
Date: 29th May, 1902.

TRADE MARK.

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

NAME.

THOMAS KINCAID, Grocer, of Colombo Street, Christchurch, New Zealand, and GEORGE COLEGROOVE, of Wellington, New Zealand, Tea-taster.

No. of class: 42.

Description of goods: Tea.

No. of application: 3803.
Date: 29th May, 1902.

TRADE MARK.

The word

TAMBUA.

NAME.

WILLIAM RODIER, of Cobar, New South Wales, Grazier.

No. of class: 13.

Description of goods: Animal-traps.

No. of application: 3806.
Date: 4th June, 1902.

TRADE MARK.

The word

ALLENBURYS

NAME.

ALLEN AND HANBURYS, LIMITED, of Plough Court, 37 Lombard Street, and Bethnal Green, London, England, Manufacturing Chemists.

No. of class: 3.

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

No. of application: 3807.
Date: 4th June, 1902.

TRADE MARK.

The word

ALLENBURYS

NAME.

ALLEN AND HANBURYS, LIMITED, of Plough Court, 37 Lombard Street, and Bethnal Green, London, England, Manufacturing Chemists.

No. of class: 42.

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

No. of application: 3808.
Date: 4th June, 1902.

TRADE MARK.

The word

ALLENBURYS

NAME.

ALLEN AND HANBURYS, LIMITED, of Plough Court, 37 Lombard Street, and Bethnal Green, London, England, Manufacturing Chemists.

No. of class: 50.

Description of goods: Feeding-bottles.

No. of application: 3809.
Date: 4th June, 1902.

TRADE MARK.

The word

BYNO

NAME.

ALLEN AND HANBURYS, LIMITED, of Plough Court, 37 Lombard Street, and Bethnal Green, London, England, Manufacturing Chemists.

No. of class: 3.

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

No. of application: 3810.
Date: 4th June, 1902.

TRADE MARK.

NAME.

ALLEN AND HANBURYS, LIMITED, of Plough Court, 37 Lombard Street, and Bethnal Green, London, England, Manufacturing Chemists.

No. of class: 3.

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

No. of application: 3811.
Date: 4th June, 1902.

TRADE MARK.

(The mark as in preceding notice, No. 3810.)

NAME.

ALLEN AND HANBURYS, LIMITED, of Plough Court, 37 Lombard Street, and Bethnal Green, London, England, Manufacturing Chemists.

No. of class: 42.

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

No. of application: 3812.
Date: 5th June, 1902.

TRADE MARK.

The word

DADDY

NAME.

OGDEN'S, LIMITED, of Liverpool, England, and York Street, Sydney, State of New South Wales, Commonwealth of Australia, Tobacco-manufacturers.

No. of class: 45.

Description of goods: Tobacco, cigars, and cigarettes.

No. of application: 3814.
Date: 6th June, 1902.

TRADE MARK.

The word

MOA.

NAME.

ALFRED GEORGE FERGUSON, of 64, Frederick Street, Dunedin, New Zealand, Cycle-manufacturer.

No. of class: 22.

Description of goods: Bicycles.

No. of application: 3816.
Date: 7th June, 1902.

TRADE MARK.

The words

CORONATION HAIR RESTORER.

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

NAME.

ISABELLA WELLS, of Thames, Auckland, New Zealand.

No. of class: 48.

Description of goods: A preparation for the hair.

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 29th May to the 11th June, 1902, inclusive:—

No. 2883; 3496.—The Standard Paint Company. Class 1. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2884; 3497.—The Standard Paint Company. Class 17. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2885; 3702. — Vacuum Oil Company. Class 47. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2886; 3704. — Vacuum Oil Company. Class 4. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2887; 3705. — Vacuum Oil Company. Class 47. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2888; 3396. — Allcock Manufacturing Company. Class 3. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2889; 3423. — Elgin National Watch Company. Class 10. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2890; 3473.—The New Home Sewing-machine Company Class 6. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2891; 3630.—G. G. Sandeman, Sons, and Co. Class 43. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2892; 3694.—Watson, Laidlaw, and Co. Class 7. (*Gazette* No. 24, of the 20th March, 1902.)

No. 2893; 3695.—The Commonwealth Portland Cement Company, Limited. Class 17. (*Gazette* No. 24, of the 20th March, 1202.)

No. 2894; 3701.—Vacuum Oil Company. Class 47. (*Gazette* No. 27, of the 3rd April, 1902.)

No. 2895; 3721.—C. J. Badham. Class 50. (*Gazette* No. 27, of the 3rd April, 1902.)

F. WALDEGRAVE,
Registrar.

By Authority: JOHN MACKAY, Government Printer, Wellington.