

SUPPLEMENT

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Official Notices.

PATENT OFFICE LIBRARY.

THIS library contains the following publications, viz. :—

United Kingdom.

The full text of the specifications and complete drawings of inventions patented from the year 1617 up to the 21st September, 1905.

Classified abridgments of inventions to 1900.

Illustrated Official Journal, containing lists of recent applications, abridgments of inventions for which patents have been lately granted, patents void, &c., to November, 1905.

Index of Applicants.

Subject-matter Index.

Commissioner of Patent Journal, &c. (*)

Trade Marks Journal to September, 1905

A

Canada.

Patent Office Record (containing illustrated abridgments of inventions, &c.) to May, 1905^(b).

Australia.

The Official Journal of Patents of the Australian Commonwealth (containing lists of applications for letters patent, abridgments of complete specifications accepted, &c.).

The Gazettes of the various States (containing lists of applications for registration of trade marks, &c.).

Specifications, drawings, abridgments, and indexes of Victoria, New South Wales, Queensland, and South Australia^(c).

United States.

The Official Gazette of the United States Patent Office (containing illustrated abridgments of specifications, &c.) to December, 1905.

Mexico.

The Official Gazette of the Patent and Trade Mark Office.

General.

La Propriété Industrielle (the official organ of the International Bureau of the Union for the Protection of Industrial Property).

Patent laws of the world.

Patent and Trade Mark Review.

Text-books and handbooks on patents and trade marks.

Miscellaneous publications.

Illustrated catalogues, price-lists of machinery, &c.

BOOKS AND DOCUMENTS OPEN TO INSPECTION.

The following documents and books are open to public inspection at the Patent Office :—

Patents.

(Fee for each search or inspection, not exceeding one hour, 1s.)

1. The files relating to all applications for letters patent in respect of which complete specifications have been accepted.
2. Classified copies of specifications and drawings, with index and key^(d).

3. Register of Application for Letters Patent.
4. Register of Patents.
5. Register of Subsequent Proprietors of Letters Patent^(c).
6. Index of Patentees^(f).
7. Index of Proprietors of Letters Patent granted prior to 1890^(g).
8. Index of Specifications^(h).

Designs.

(Search fee, 1s. each quarter of an hour.)

1. Register of Designs, with Index of Names of Proprietors.
2. Classified Representations of Designs in respect of which Copyright has expired.
3. Index of Designs.

Trade Marks.

(Search fee, 1s. each quarter of an hour.)

1. The files relating to all applications for registration of trade marks.
2. Register of Applications for Registration of Trade Marks.
3. Register of Trade Marks.
4. Index of Applicants for Registration of Trade Marks⁽ⁱ⁾.
5. Index of Trade Marks.
6. Classified Representations of Trade Marks, with indexes.

Miscellaneous.

Register of Patent Agents.

FORMS.

The following forms, &c., may be had on application:—

- Application for letters patent.
- Provisional specification.
- Complete specification and copy thereof.
- Application for registration of design.
- Application for registration of trade mark.
- Applications for extension of time.
- Requests by subsequent proprietor to enter name on Register of Patents and Trade Marks.
- Printed sheets of information as to fees and procedure to obtain letters patent and to register a trade mark^(j).
- Pamphlet containing Act and Regulations (price 1s.).

OFFICIAL PUBLICATIONS.

The following publications may be obtained from the Government Printer, Wellington:—

- Printed specifications to the end of the year 1879.
- Annual lists of letters patent and letters of registration applied for, and particulars of applications lapsed, and patents lapsed, from 1880 to 1888 inclusive.
- Annual reports of the Registrar, containing alphabetical lists of applicants for letters patent and of inventions patented from 1889 to 1904 inclusive.
- The Patents Supplement to *Gazette* (containing notifications, applications for letters patent, abridged descriptions and drawings of inventions, &c.), published fortnightly.

LOCAL PATENT OFFICES.

Local patent offices for the reception of applications for letters patent without extra payment have been appointed at the following places: Ashburton, Auckland, Blenheim, Christchurch, Dunedin, Gisborne, Greymouth, Hokitika, Invercargill, Napier, Nelson, New Plymouth, Oamaru, Queenstown, Thames, Timaru, Wanganui, Westport. These are situated in the Supreme Court Buildings and S.M. Court Houses.

PATENT AGENTS.

A list of registered patent agents may be obtained on application.

(a) Discontinued.
 (b) These may also be seen at the Public Libraries, Auckland and Christchurch.
 (c) In arrears. Not now being printed.
 (d) Key is in card index.
 (e) This Register contains only names of subsequent proprietors of letters patent granted prior to 1st January, 1890; since that date they appear in Register of Patents.
 (f) Includes all names of applicants, &c., and consists of four volumes to 4th November, 1903, and card index since that date. A separate card index is kept for current quarter.
 (g) The names of proprietors of subsequent letters patent appear in the Index of Patentees.
 (h) Contains classified abridgments of specifications from 1861, with extracts from drawings from July, 1904.
 (i) Names of applicants for registration and proprietors of trade marks are indexed at the beginning of the Registers up to 31st December, 1889; in separate volume up to 5th September, 1904; and since the latter date are in card index.
 (j) May also be obtained at any local Patent Office or money-order office.

Applications for Letters Patent filed.

LIST of applications for Letters Patent filed. (Where a complete specification accompanies an application an asterisk is suffixed; in all other cases a provisional specification has been lodged. In cases where the applicant is not the inventor the name of the latter appears in italics after the title.)

- No. 20447.—14th December.—E. C. Kilgour, Echuca, Victoria.
 Acetylene-generator.
- No. 20448.—14th December.—A. R. Angus, Neutral Bay N.S.W.
 Running-gear for railway-cars.
- No. 20449.—14th December.—A. R. Angus, Neutral Bay, N.S.W.
 Running-gear for railway-cars.
- No. 20450.—14th December.—United Shoe Machinery Company, Paterson, U.S.A.
 Lasting-machine. (*W. A. Bond.*)
- No. 20451.—14th December.—United Shoe Machinery Company, Paterson, U.S.A.
 Sewing-machine. (*W. C. Meyer.*)
- No. 20452.—14th December.—United Shoe Machinery Company, Paterson, U.S.A.
 Rough-rounding and channeling machine. (*G. F. Wolfe.*)
- No. 20453.—14th December.—United Shoe Machinery Company, Paterson, U.S.A.
 Fastenings forming and inserting machine. (*G. A. Ambler.*)
- No. 20454.—14th December.—The Chartered Patents Company, Limited, New York, U.S.A.
 Type casting and setting machine.* (*J. R. and G. A. Pearson.*)
- No. 20455.—14th December.—Aktiebolaget Separator, Stockholm, separator.* (*B. Ljungström.*)
- No. 20456.—14th December.—H. J. R. Hemming, Hither Green, England.
 Sterilising and preserving foods, liquids, &c., with gases.* (Date applied for under section 106, 31st December, 1904.)
- No. 20457.—15th December.—T. S. Philpott, Newtown, N.Z.
 Ventilating window.
- No. 20458.—15th December.—A. B. Robertson and R. W. Bond, New Plymouth.
 Cow-bailing appliance.
- No. 20459.—15th December.—R. H. Robson, Taihape, N.Z.
 Composition for building-blocks, &c.
- No. 20460.—14th December.—S. Rodgers, Tuapeka West, N.Z.
 Fish-plate for railway-rails.
- No. 20461.—14th December.—S. Rodgers, Tuapeka West, N.Z.
 Railway-rails.
- No. 20462.—16th December.—J. Steer, Napier.
 Washing-fluid.*
- No. 20463.—18th December.—C. P. Hanson, Waireka, N.Z.
 Non-refillable bottle.
- No. 20464.—18th December.—L. A. Walsh, Remuera, N.Z.
 Fish-hook or artificial bait.*
- No. 20465.—18th December.—J. Turton, Johannesburg, Transvaal.
 Extraction of metals from ores.*
- No. 20466.—18th December.—A. G. Lavertine and J. E. McNeillan, Johannesburg, Transvaal.
 Inflating rubber tires.*
- No. 20467.—18th December.—S. B. Forscutt, Oamaru.
 Funnel.
- No. 20468.—28th December.—K. Matthews, Auckland.
 Treating New Zealand flax.
- No. 20469.—19th December.—A. Jack, Palmerston North.
 Production of gas from hydro-carbon, &c., oils.
- No. 20470.—19th December.—H. Cleary, Whangarei.
 Cream cooler and holder.
- No. 20471.—20th December.—A. Collier, Geelong, Victoria.
 Cheque-form.*
- No. 20472.—18th December.—F. Stubbs, Auckland.
 Fixing and tightening steam-boiler tubes.
- No. 20473.—20th December.—C. F. Pulley, Wellington.
 Dressing timber used in wharf-building, &c.
- No. 20474.—20th December.—J. J. Power, Gleniyon, Victoria.
 Wash-board.*
- No. 20475.—20th December.—M. B. L. Ehrmann, St. Kilda, Victoria.
 Manufacture of butter.*
- No. 20476.—15th December.—J. H. A. McPhee, Dunedin.
 Tobacco cutter and box.

- No. 20477.—18th December.—S. Rodgers, Tuapeka West. Fish plate for fastening railway-rails.
- No. 20478.—18th December.—S. Rodgers, Tuapeka West. Ratchet nut.
- No. 20479.—19th December.—D. Moore, Timaru. Seed-sower.
- No. 20480.—21st December.—O. Andrews, Levin. Vulcanising tires, &c.*
- No. 20481.—21st December.—E. Barrett, Brunswick, N.Z. Churn and butter washer.
- No. 20482.—21st December.—V. R. Reeve, Matapu, N.Z. Diverting from service-tanks first portion of rain-water caught upon roof.
- No. 20483.—21st December.—C. Kolling, Sydney, N.S.W. Automatic-discharge goods-elevator.*
- No. 20484.—21st December.—R. Barnes, Fitzroy, Vic. Heel for boot and shoe.*
- No. 20485.—21st December.—A. R. Angus, Neutral Bay, N.S.W. Running-gear of railway-car.
- No. 20486.—21st December.—F. E. A. Gordon, Palmerston North. Washing-fluid.
- No. 20487.—21st December.—A. Blanchard, H. Wood, and E. A. H. Burgoyne, London. Incandescent vapour burner.*
- No. 20488.—21st December.—R. P. Park, Melbourne, Vic. Sluice-box for gold-saving.
- No. 20489.—19th December.—P. Hercus, Christchurch. Recording movements of persons.*
- No. 20490.—19th December.—J. F. Lutjohann, Christchurch. Raising surface of billiard-table.
- No. 20491.—22nd December.—T. J. Heskett, Brunswick, Vic. Iron and steel manufacture.
- No. 20492.—20th December.—R. Dunne, Dunedin. Match striker.
- No. 20493.—20th December.—J. McNarry, Oamaru. Spring key.
- No. 20494.—22nd December.—W. Shephard, Adair S., N.Z. Destroying blight on plants.
- No. 20495.—22nd December.—S. Banks and E. J. W. Jones, Aratapu, N.Z. Cool safe.*
- No. 20496.—22nd December.—J. Garside, Dunedin, N.Z. Sprayer.*
- No. 20497.—28th December.—H. House, Melbourne, Vic. Grain-riddle.
- No. 20498.—23rd December.—J. J. Macky, Auckland. Trolley-wheel guide.
- No. 20499.—28th December.—A. R. Angus, Neutral Bay, N.S.W. Railway-car gear.
- No. 20500.—28th December.—Bewick, Morsing, and Co., Kalgoolie, W.A., and London Wall, England. Decantation of cyanide, &c., solutions.* (*P. Fitzgerald.*)
- No. 20501.—28th December.—I. Sutherland, Fitzroy, Vic. Roundabout.
- No. 20502.—28th December.—F. R. Dennison, Oamaru. Motor speed-gear.
- No. 20503.—28th December.—J. J. Walker, London, England. Music-recorder.*
- No. 20504.—28th December.—E. B. Killen, London, England. Tire.*
- No. 20505.—28th December.—Machine-made Casks, Limited, London, England. Stave-preparing machine for casks.* (*W. Jamieson and R. Burn.*)
- No. 20506.—28th December.—Machine-made Casks, Limited, London, England. Casks.* (*R. Burn.*)
- No. 20507.—28th December.—K. Matthews, Auckland. Flax process.
- No. 20508.—30th December.—R. A. Bradbury, Christchurch. Sleeve-waterproof coat.
- No. 20509.—30th December.—S. B. Forscutt, Oamaru. Clamping mattress-frame to bedstead.
- No. 20510.—29th December.—R. R. Douglas, Dunedin. Dredge tumbler and shaft.
- No. 20511.—3rd January.—E. F. Chatfield, Auckland. Drainer for fish, meat, &c.
- No. 20512.—3rd January.—J. S. Kirkpatrick and C. Starr, Huntly. Railway turn-table.
- No. 20513.—3rd January.—J. F. Peters, Auckland. Baking-tin.
- No. 20514.—3rd January.—United Expedite Finishing Company, Berwick, U.S.A. Heel-finishing machine. (*C. B. Tuttle.*)
- No. 20515.—3rd January.—J. R. Hatmaker, Paris, France. Eggs and egg-containing substances in dry form.* (Date applied for under section 106, 2nd January, 1905)
- No. 20516.—3rd January.—W. S. Laycock, Sheffield, England. Railway-carriage, &c., seat.*
- No. 20517.—3rd January.—F. J. Walton and L. V. Rogers, London. Time-table and advertising apparatus.*
- No. 20518.—3rd January.—T. Harkins, Auckland. Shaping-machine for tinsmith.
- No. 20519.—3rd January.—E. Aston, Te Kuiti, N.Z., and W. H. Thompson, Ohaiwa, N.Z. Preventing horses from kicking.*
- No. 20520.—3rd January.—C. Grueneberg, Poszony, Hungary. Brush drilling and tufting machine.*
- No. 20521.—3rd January.—C. Grueneberg, Poszony, Hungary. Manufacture of brushes.*
- No. 20522.—3rd January.—M. Juriss, Wellington. Signalling at night.
- No. 20523.—4th January.—W. E. Hughes, Wellington. Linotype machine.* (*Linotype and Machinery, Limited.*)
- No. 20524.—4th January.—A. J. and R. H. Campbell, Edmonton, England. Seltzogene.*
- No. 20525.—4th January.—T. D. Kyle, Marrickville, N.S.W. Preventing decomposition of fish.*
- No. 20526.—4th January.—E. N. Waters, Melbourne. Mortar for crushing-mill.* (*J. H. Hendy.*)
- No. 20527.—4th January.—A. P. S. Macquisten, Glasgow, Scotland. Separating solid particles.*
- No. 20528.—4th January.—L. Serpollet, Paris, France. Steam engine or motor.*
- No. 20529.—3rd January.—T. B. Dineen, Sydney. Back of detachable-leaf ledger, &c.
- No. 20532.—5th January.—H. P. Keogh, Melbourne, Vic. Treatment of sulphide-ores containing zinc.
- No. 20531.—5th January.—G. Davies, Christchurch. Water-jacketted larder.
- No. 20532.—5th January.—G. Carrington, Lake Wanstead, N.Z. Wire strainer and twister.
- No. 20533.—6th January.—A. G. Betts, Troy, U.S.A. Electrical conductor.*
- No. 20534.—6th January.—La Société Anonyme, Westinghouse, and M. Le Bland, Paris, France. Ejector.*
- No. 20535.—6th January.—A. R. Hubbard and R. Flay, Surrey and Middlesex, England. Kitchen range.*
- No. 20536.—6th January.—A. J. Way, Wellington, N.Z. Carburetting air and producing combustible gas.
- No. 20537.—6th January.—A. J. Way, Wellington, N.Z. Carburetting air and producing combustible gas.
- No. 20538.—6th January.—T. Harkins, Auckland, N.Z. Manufacture of sheet-metal receptacle for tea, &c.
- No. 20539.—6th January.—H. Hadida, London, S. F. Cross, Birkenhead, and P. W. Slingsby, London, England. Affixing stamps or labels to envelopes, &c.
- No. 20540.—6th January.—J. D. Bywater, Christchurch, N.Z. Mounting of discs in disc ploughs.
- No. 20541.—8th January.—T. M. O'Rourke, Matakitaki N.Z. Scraper attachment to brushes.
- No. 20542.—8th January.—W. F. C. Kelly and J. A. Bentham, London, England. Photographic dry plates.*
- No. 20543.—16th May.—A. Curwood, Campbelltown, J. Harrison, Half-moon Bay, S. J. and E. A. Cameron, Invercargill, N.Z. Window-sash balance and fastener.*
- No. 20544.—8th January.—J. Dalton, Rongotea, N.Z., Protection of river-banks.
- No. 20545.—9th January.—P. Wright, Durban, Natal. Gold, &c., extractor.
- No. 20546.—9th January.—D. Nield, Wellington, N.Z. Steam-engine regulator. (*G. Hodgson.*)

- No. 20547.—9th January.—J. W. Henderson, Karori, N.Z.
Pneumatic-tire protector.
- No. 20548.—10th January.—T. L. Willson, Ottawa, Canada.
Gas, whistling, and bell buoys.*
- No. 20549.—10th January.—W. F. Klever, Cologne, Germany.
Manufacture of lubricating and anti-corrosive oils.*
- No. 20550.—6th January.—A. T. C. Firth, Auckland, N.Z.
Concrete metal-plated sleepers for railways, &c.
- No. 20551.—8th January.—A. Leman, Auckland, N.Z.
Boot-polisher.
- No. 20552.—10th January.—A. B. Wilson, Brisbane, Q.
Line-spacer for typewriter.
- No. 20553.—10th January.—R. H. Whitelegg, Forest Gate, Essex, England.
Blast-pipe for engine.*
- No. 20554.—10th January.—United Shoe Machinery Company, Paterson, U.S.A.
Sole-pressing pad. (*H. A. Davenport.*)
- No. 20555.—10th January.—J. H. Booth, Jambunna, Vic.
Turn-coupling for fore-carriage of vehicle.
- No. 20556.—10th January.—A. V. Leggo, Ballarat, Vic.
Ore-furnace.*
- No. 20557.—10th January.—J. Todd, Otautau, N.Z.
Spreader for draught-chains.
- No. 20558.—10th January.—E. Kenshall, Papanui, N.Z.
Motor-driven friction-boist.
- No. 20559.—10th January.—H. E. McDonald, Petone, Wellington, N.Z.
Spanner.
- No. 20560.—10th January.—H. E. McDonald, Petone, Wellington, N.Z.
Pipe-wrench.
- No. 20561.—10th January.—H. C. Bell, Ballarat, Vic.
Hat and clothing cabinet.
- No. 20562.—10th January.—H. E. McDonald, Petone, Wellington, N.Z.
Pipe-wrench.

Notice of Acceptance of Complete Specifications.

Patent Office,
Wellington, 10th January, 1906.

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. 18928.—9th January, 1905.—JOHN JOSEPH HEALY, of No. 12, Clifton Street, Richmond, Victoria, Commercial Traveller. An improved cooler for cream and other liquids.*

Claims.—(1.) An apparatus for cooling and sterilising cream, milk, or other liquids. (2.) The jacketed cylinder and cover. (3.) The cooler coupled by a connecting pipe and couplings to the jacketed cylinder with the spare pipe by which the cooling water is discharged on to the glass plate of the cooler and the tray, forming a retaining bath for the cold water in which the cooler stands. The whole as described in the specification and illustrated in the drawings.

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

No. 19003.—25th January, 1905.—HERBERT PERCY SAUNDERSON, of Elstow Works, Bedford, England, Engineer. Improvements in self-propelling motors for vehicles, hauling, and other like purposes.*

Claims.—(1.) In motors for vehicles, the combination and arrangement of a hollow metal base forming the tank for water, the axle and frame, substantially as described, and according to the drawings. (2.) In motors for vehicles, the combination and arrangement of the steering wheels, with the pivoting the same, substantially as described, and according to the drawings. (3.) In motors for vehicles, the combination and arrangement of the gearing, the variable speed gear-box, and the reversing and differential gear, substantially as described, and according to the drawings. (4.) In motors for vehicles, the combination and arrangement of a quadrant at the rear of the motor, and the self-propelling apparatus, substantially as described, and according to the drawings. (5.) In motors for vehicles, the combination and arrangement of the various parts, with an idle wheel or wheels, substantially as described. (6.) In

motors for vehicles, the combination and arrangement of the fan blades and the cooling tubes, and the pump, substantially as described, and according to the drawings. (7.) In motors for vehicles, the arrangement of pads on the periphery of the rims of the travelling wheels, substantially as described, and according to the drawings. (8.) The self-propelling motor for vehicles, substantially as described.

(Specification, 7s.; drawings, 3s.)

No. 19031.—1st February, 1905.—ROBERT WALES, of 5, Commercial Chambers, 24, Manse Street, Dunedin, New Zealand, Engineer. Method of and apparatus for cutting material to form mitre or bevel joints.*

Claims.—(1.) Method of cutting material to form a mitre or bevel joint, which consists in holding two strips of the material crossed so that the strips lie in divergent planes one on each side of cutting means and cutting the strips together, substantially as described. (2.) Method of cutting material to form a mitre or bevel joint, which consists in holding two strips of the material crossed in two divergent radial planes, one on each side of a circular saw, both planes passing through the axis of the saw spindle and cutting the strips simultaneously together, substantially as described. (3.) Method of cutting material to form a mitre or bevel joint, which consists in holding two strips of the material crossed in two divergent planes, one on each side of a circular saw, respectively parallel to and equi-distant from radial planes passing through the axis of the saw spindle and cutting the strips simultaneously together, substantially as described. (4.) Apparatus in which strips of material to be cut for making mitre or bevel joints are held at an angle with each other in two divergent planes so that they may be cut together in a plane passing through the angle, substantially as described. (5.) Making one of the rests adjustable revolvably in planes inclined to the plane of the other rest, substantially as and for the purposes set forth. (6.) Apparatus for cutting material to make mitre or bevel joints constructed and operating substantially as described with reference to Figs. 5 to 9, inclusive, of the drawings.

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

No. 19050.—9th February, 1905.—UNITED SHOE MACHINERY COMPANY, of Paterson, State of New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having a place of business at 205, Lincoln Street, Boston, Massachusetts, United States of America (assignees of Orrell Ashton, of Lawrence, Massachusetts aforesaid, Machinist). Improvements in or relating to machines for presenting paste or analogous adhesive matter.*

Claims.—(1.) In a machine of the class described, the combination with means for holding gum, of a rotatable or other gum presenter arranged to receive gum from the holder, means for advancing the presenter, and means for limiting automatically the extent of each advance in order to predetermine the extent of loaded area made available for the work by such advance, with or without means which for the purpose described automatically lock the presenter. (2.) In a machine of the class described, the combination with means for holding gum, of a rotatable gum presenter arranged to receive gum from the holder, means for rotating the presenter, and means for limiting automatically the angular movement of the presenter in order to predetermine the quantity of gum made available for the work by such angular movement. (3.) A machine of the class described, comprising means for holding gum, a movable presenter, actuating mechanism for advancing the presenter to deliver gum into position to be taken off by the work, and automatic means for holding the presenter against movement while gum is being removed therefrom. (4.) In a machine of the class described, the combination with means for holding gum, of a gum presenter, a transferer for delivering gum from the holder to the presenter, a rotary feeder mounted in the holder and provided with members extending forwardly and downwardly with relation to the direction of its rotation, and means for actuating the feeder to stir the gum and press it against the transferer. (5.) In a machine of the class described, the combination with means for holding gum, of a sleeve secured to the floor of the holder, a shaft rotatable in said sleeve, and a stirrer suspended from the upper portion of the shaft to be rotated thereby and having a bearing on said sleeve, substantially as described with reference to the drawings. (6.) In a machine of the class described, the combination with a gum-holder having a delivery opening and a transferring-wheel for delivering gum through said opening, of a water-pan and interlocking means carried by the gum-holder and water-pan for sustaining the latter in position to protect the gum on the exposed portion of said wheel and in the opening from drying. (7.) In a machine of the class described, the employment for the purposes

described of parts substantially such as 28, 30, 32, 88, and 86 illustrated in the drawings. (8.) The complete machine, substantially as and for the purpose described, and illustrated in Figs. 2 and 3 of the drawings.

(Specification, 15s. ; drawings, 2s.)

No. 19051.—9th February, 1905.—UNITED SHOE MACHINERY COMPANY, of Paterson, State of New Jersey, United States of America, a corporation duly organized under the laws of said State of New Jersey, and having a place of business at 205, Lincoln Street, Boston, Massachusetts, United States of America (assignees of Orrell Ashton, of Lawrence, Massachusetts aforesaid, Machinist). Improvements in or relating to trimming-machines used in the manufacture of boots and shoes.*

Claims.—(1.) In a toe-trimming machine, the combination of a cutter and a gauge (with or without a toe-rest) constructed to receive and position the toe part of the shoe prior to its presentation to the cutter and be given movement by the said toe part to bring projecting portions of that part into contact with the cutter. (2.) In a toe-trimming machine, the combination of a cutter, a gauge constructed to present the toe portion of the shoe in position to permit surplus stock to be trimmed off by the cutter, and a rest to position the toe tip of the shoe, said gauge and said rest being so constructed and arranged that a shoe having its tip in contact with the toe-rest is prevented by the gauge from being projected beyond a predetermined limit into the path of the cutter. (3.) The complete toe-trimming machine substantially as described with reference to Figs. 1, 2, and 3 of the drawings.

(Specification, 7s. 6d. ; drawings, 2s.)

No. 19060.—10th February, 1905.—THOMAS HARVEY HENDERSON, of Carterton, New Zealand, Farmer. An improved method of destroying California thistle and other noxious weeds.*

Claim.—The improved method of destroying California thistle and other noxious weeds, the same consisting essentially in first saturating the ground around the roots of the weeds with a volatile fluid, and then treating such saturated ground with a chemical fluid having destructive properties, as specified.

(Specification, 1s. 3d.)

No. 19112.—21st February, 1905.—EDMUND FRANCIS BEDFORD KENYON, of Hove, Brighton, Sussex, England, Gentleman, and SAMUEL STOCKHAM TITT, of Brighton aforesaid, Hotel Proprietor. Improved apparatus for producing bread-crumbs.*

Claims.—(1.) An apparatus for reducing bread to crumbs, consisting of the combination of parts described and illustrated by the drawings. (2.) In an apparatus of the character described, a revolving grater formed with a feed-notch. (3.) In an apparatus of the character described, a revolving grater formed with a feed-notch having one edge higher than the other to facilitate the passing of the bread under the grater.

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

No. 19113.—21st February, 1905.—ERHARD SIMEON SCHROEDER, of Woodville Road, Woodville, South Australia, Australia, Teacher. An improved device for extracting stumps, trees, posts, and the like.*

Extract from Specification.—My invention consists in utilising the well-known wheel and axle principle for producing the power in a device for extracting and raising stumps and the like. I accomplish this by employing one or more lever wheels, lever-pulley wheels or discs secured upon a shaft or axle, and operating a gripping device connected to a chain or other means encircling the shaft or axle, the said lever-pulley wheels being actuated by means of wire rope or other connections passing around their circumference, and or by special hand-levers.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

Specification, 9s. ; drawings, 2s.)

No. 19131.—22nd February, 1905.—STEPHEN PRIEST, the younger, of Rooke Street, Tasmania, Architect. An improved wall-tie, or means for holding together the two divisions of cavity brick walls.*

Claims.—(1.) My improved tie for hollow walls in buildings, consisting of the combination with the longitudinal

wires 2 and 3 of the transverse wires 4 and 5, substantially as described, and as illustrated in Figs. 1, 2, and 4 of the drawings. (2.) The combination with the longitudinal wire 3 of the transverse wire 5, having the loops 8, substantially as described, and as illustrated in Fig. 3 of the drawings. (3.) In ties for hollow walls, the combination with the longitudinal wires 2 and 3 of wires 4 and 5 twisted respectively around said longitudinal wires for a certain distance, both being then carried across the intervening space between said longitudinal wires so that they cross one another at an angle about midway between said longitudinal wires when each is twisted around the opposite longitudinal wire, the operation being repeated as often as necessary to make a tie of a predetermined length, substantially as described, and as illustrated in Figs. 1, 2, and 4 of the drawings.

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

No. 19145.—27th February, 1905.—TEWI TIAMANA RAWHITI, of Hamilton, New Zealand, Private Secretary. Improvements in or relating to wagon-poles.*

Claims.—(1.) In combination with a wagon-pole pivoted near its back end to the underframe of the wagon, a plate extending across and overlying the back end of the pole and loosely held in position by pegs upon the wagon-frame passing through apertures in the plate, and springs surrounding the pegs, and bearing at their bottom ends upon the plate and at their top ends upon a fixed portion of the wagon, substantially as and for the purposes specified. (2.) The general arrangement, construction, and combination of parts in my improvements in or relating to wagon-poles, as described and explained, as illustrated in the drawings, and for the several purposes set forth.

(Specification, 2s. 9d. ; drawing, 1s.)

No. 19271.—30th March, 1905.—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 a place of business at 205, Lincoln Street, Boston, Massachusetts, United States of America (assignees of Louis William Garnett Flynt, of Rochester, Monroe, New York, United States of America, Machinist). Improvements in perforating-machines.*

Extract from Specification.—The chief object of this invention is to provide means for insuring that the spaces between perforations formed in a curved or irregular line will be of about the same length as those between perforations formed in a straight line, and to this end a punching-machine has been devised having a presser-foot which engages the stock at a point in alignment with the line of perforations formed in the stock, so that when the stock is turned about the presser-foot, the point at which the last perforation was made will not be moved either in the same or in the reverse direction to that in which the stock is being fed, but will be moved at approximately a right angle to the direction of the feed. A preferred form of the invention is shown as embodied in a machine having a punch which penetrates the stock and then moves laterally for feeding the stock, the stock being engaged at a point in the plane of lateral movement of the punch by a presser-foot which is moved automatically into and out of operative position. In order that the punch may penetrate the stock without being subjected to contact with a metallic bed surface, a strip of flexible non-metallic material is interposed between the punch-block and the stock being operated on, said strip being moved step by step as the stock is fed, so that a fresh portion of the strip will be presented to the punch each time it penetrates the stock, and one of the features of this invention consists in means for guiding said flexible strip and for winding it into a coil as it passes from the punch-block. Other features of the invention consist in an adjustable work-gauge, which can be depressed below the surface of the stock-supporting table when said gauge is not in use, novel mechanism for moving the punch laterally and for varying the extent of reciprocating movement of the punch, and improved means for changing the degree of lateral movement of the punch.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

(Specification, 16s. 6d. ; drawings, 4s.)

No. 19286.—1st April, 1905.—ADAM WERNER, of Doyleston, New Zealand, Engineer. Improvements connected with the elevators of threshing-machines.*

Claims.—(1.) For the purpose indicated, the general arrangement, construction, and combination of parts, substantially as described and as set forth. (2.) For the pur-

pose indicated, an elevator in two parts hinged together, projections from each part carrying pulleys in which guys attached to the forward part of the elevator at one end and to the mill at the other come as they are payed out, and socket-pieces as 11 which support the lower portion of the elevator during the folding operation, as specified. (3.) For the purpose indicated, an elevator in two parts connected together by U-shaped plates having outwardly flaring ends, guys attached to the forward ends, and a pulley in the other end of each plate, in combination with plates as 9 carrying pulleys, projecting from the end of the lower half of the elevator, and means for staying said plates and for taking in or paying out the guys or ropes, substantially as specified.

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

No. 19291.—1st April, 1905.—CLIFFORD JOHN JOHNSON, of Point Chevalier, near Auckland, New Zealand, Engineer, and JAMES CARLAW, of Auckland aforesaid, Waterworks Engineer. An improved fire-bridge smoke-consumer and fuel-economiser.*

Claims.—(1.) In the improved fire-bridge specified, the building-up of the fire-bridge solid to the crown of the furnace and in touch with boiler, except for one or more holes or ports provided therethrough above the level of the fire-bars, and the air-hole or port provided below the level of the fire-bars made through the bearer, for the purpose set forth, substantially as described and illustrated. (2.) The fire-bridge specified, built up to the crown of the furnace and in touch with the boiler, having one or more holes or ports made through said fire-bridge at a point or points above the level of the fire-bars, and the air-hole or port made in bearer provided below the level of the fire-bars, for the purpose set forth, substantially as described and illustrated. (3.) The fire-bridge specified, built up to the crown of the furnace and in touch with the boiler, having one or more holes or ports made through said fire-bridge at a point or points above the level of the fire-bars, and the air-hole or port made through bearer below the level of the fire-bars, in combination with the boiler, fire-bars, furnace, furnace-door, and ash-pit, for the purpose set forth, substantially as described and illustrated.

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

No. 19375.—20th April, 1905.—CHARLES GLUYAS, residing on the property of the Jubilee Gold Company, Limited, of Johannesburg, Transvaal, Mine-manager. Improvements in apparatus for treating slimes produced in the reduction of auriferous ores for the recovery of the precious metal.*

Claims.—(1.) In apparatus of the nature indicated, in combination, a plurality of settling boxes for separating the slimes or solid matter from the liquid, means for adding to said separated matter the cyanide or other solvent solution, means for elevating said mixture to a plurality of circulating towers, which towers comprise a plurality of superimposed launders along which the mixture flows in a more or less spiral course from top to bottom of said towers, means for conducting the mixture containing the first or strong solution from one of said towers to a series of settling-boxes, means for conducting the separated strong solvent solution from said settling-boxes to a filter and extractor-boxes and from the latter to a strong solution sump, means for mixing with the solid matter separated from the strong solution a weaker solution or water wash, means for elevating said mixture to one of said circulating towers, means for conducting said mixture from said tower to a separate series of settling-boxes, and means for conducting said weaker solution or water wash through a separate filter and separate extractor-boxes, substantially as described. (2.) In apparatus of the nature indicated, in combination, a plurality of settling-boxes arranged in series, in which the slimes or solid matter are separated from the liquid, launders into which said separated matter is received, pipes for conducting solvent solution from the strong solution sump to mix with said separated slimes, a plurality of elevating wheels, means for conducting said mixture of slimes and solution to one of said wheels or one compartment of one of said wheels, a launder for receiving the mixture from said wheel, a circulating tower comprising a number of superimposed launders into which the mixture is conducted and through which it flows in a more or less spiral course, means for receiving and returning to the second wheel or the second compartment of the first wheel the mixture from the first circulating tower, means for receiving the mixture from the second wheel, a second circulating tower, means for conducting the mixture from said second tower to the third wheel or the first compartment of the second wheel, a third circulating tower to which the mixture is conducted from the third wheel or first compartment of the second wheel, a plurality of settling-boxes, means for conducting the mixture from the third circulating tower to said settling-

boxes, means for conducting the strong solvent solution from said settling-boxes to a filter and from the latter through extractor-boxes and thence to a strong solution sump, means for receiving the slimes or solid matter separated from the strong solution, means for mixing therewith a weaker solution or water wash and for returning it to the fourth wheel or second compartment of the second wheel, a fourth circulating tower, means for receiving the mixture from the fourth wheel or second compartment of the second wheel and conducting to said fourth circulating tower, a series of settling-boxes to which the mixture is conducted from the fourth tower, and means for conducting the solvent solution from said settling-boxes through a separate filter and extractor-boxes, substantially as described. (3.) In apparatus of the nature indicated, the combination with the settling-boxes of a discharge-pipe carried upwards for a suitable distance and then bent or curved downwards and fitted with a reduced nozzle for concentrating the solid matter separated in the settling-boxes, substantially as described and shown. (4.) Apparatus of the nature indicated, having its several parts constructed and arranged to operate in combination, substantially as described in connection with and as illustrated in the several figures of the drawings.

(Specification, 11s.; drawings, 3s.)

No. 19411.—1st May, 1905.—GEORGE HENRY CLAPHAM and JOHN LANCELOT BARLOW, both of Wellington, New Zealand, Metal Workers. Improvements in spouting brackets.*

Extracts from Specification.—Our invention has been designed to carry out the aforesaid object, and to this end we construct the bracket proper of one piece of metal shaped or moulded to the contour of the spouting, and having a portion adapted to lie next to and vertical with the structure. . . . The top of the moulded portion of the bracket is slit or cut vertically in two places, and the part thus cut is bent downwards and outwards, thus forming a small lug or ear. This lug or ear is adapted to fit into a slot formed in a clipping piece, which is retained thereby, and this clipping piece is so shaped that it may be turned over the edge of the spouting and securely hold the spouting to the bracket.

[NOTE.—The above extracts from the specification are inserted in place of the claims.]

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

No. 19451.—8th May, 1905.—FREDERICK GEORGE RADCLIFFE, Photographer, and ROBERT LESLIE STEWART, Merchant, both of Auckland, New Zealand. An improved post-card.*

Description.—The invention consists in photographing . . . views on backs of post-cards . . . in a double or stereoscopic form

Claim.—The photographing or otherwise reproducing scenic and other views on the backs of post-cards, and the application of the same thereto for the purposes set forth, as specified.

(Specification, 1s.)

No. 19573.—6th June, 1905.—CLIFFORD JOHN JOHNSON, of Point Chevalier, near Auckland, New Zealand, Engineer, and JAMES CARLAW, of Auckland aforesaid, Waterworks Engineer. An improved fire-bridge smoke-consumer and fuel-economiser.*

Claim.—The building the improved fire-bridge specified, comprising the fire-bridge built up solid to the crown of the furnace, except for one or more holes or ports provided therethrough above the level of the fire-bars and the air hole or holes or ports provided below the level of the fire-bars made through the bearer with all necessary doors and dampers out before the front or face of a water-tube boiler and in combination therewith so that the combustion-chamber at the inner ends of the holes or ports through the fire-bridge and bearer shall be below the fire-bridge, and bearer shall be below the forward portions of the water-tubes for the purpose set forth, substantially as described and illustrated.

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

No. 19627.—26th June, 1905.—FREDERICK WILLIAM PARKER, of 36, Adelaide Street, South Hobart, Tasmania, Australia, Commission Merchant. Rabbit-exterminating combination.*

Claims.—(1.) In a rabbit-exterminator, the combination of an outer enclosure furnished with an inset panel containing funnel-shaped alleyways and flap-inlets with angle guards and braces, together with an inner enclosure furnished with

an inset panel containing funnel-shaped alleyways and flap-inlets, with angle-guards and braces, and containing decoys with proof-netting protection and bag-net, substantially as set forth, and as shown in the drawings. (2.) In a device for exterminating rabbits, in combination, an outer enclosure A furnished with inset panel A² containing funnel-shaped alleyways D and flap-inlets E with angle-guards F and braces G, together with an inner enclosure B furnished with inset panel B² containing funnel-shaped alleyways D and flap-inlets E with angle-guards F and braces G, and containing decoys with proof-netting protection C and bag-net H, substantially as set forth, and as shown in the drawings. (3.) The general construction, arrangement, and combination of parts composing my rabbit-exterminating combination, substantially as and for the purposes set forth.

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

No. 19644.—28th June, 1905.—WILLIAM HOWLIN, of 17, Laura Street, Newtown, near Sydney, New South Wales, Australia, Builder. Improved means for automatically operating valves, taps, switches, and the like.*

Claims.—(1.) In apparatus for opening and closing taps, valves, switches, and the like, the combination with a clock, electro-magnet, or other suitable means of a starting-lever actuating a bell crank to release two cams, one of said cams setting the mechanism in motion and the other controlling the movement of a crank disc or eccentric carrying the operating rod, lever, or chain, substantially as described and explained. (2.) In apparatus for opening and closing taps, valves, switches, and the like, the combination with suitable means for starting the mechanism of lever 17, bell crank with arms 32 and 31, engaging respectively with cams 25 and 30, operated through intermediate gearing from a main driving-wheel, said lever carrying a pawl 34, to engage with a lug on a gear wheel 22 on the same spindle as the cam 30, the spindle of the cam 25 carrying a crank disc 26 on which is the operating rod or lever, substantially as described and as illustrated. (3.) In apparatus for opening and closing taps, valves, switches, and the like, the combination with suitable starting means, of levers 17, 32, and 31, cams 25 and 30, pawl 34, and lug 35, on one of the gear wheels, crank disc 26, actuating rod or lever 27, and suitable clock mechanism to drive same, substantially as described and as illustrated particularly in Fig. 3. (4.) In apparatus for opening and closing taps, valves, switches, and the like, the combination with a clock of a pinion 49 on the hour arbor, gearing with a wheel 50, on the spindle of which is another pinion 51, driving two gear-wheels 47 and 48, and snails 11 and 12 adjustable by means of notched discs 52 and 53, and actuating a belt crank lever which operates a starting-lever 17, substantially as described and as illustrated. (5.) In apparatus for opening and closing taps, valves, switches, and the like, the combination with the hour arbor of a clock of independent sleeves thereon carrying snails 11 and 12 and gear wheels 47 and 48, driven through intermediate gearing from said arbor, substantially as described and as illustrated particularly in Figs. 4, 8, and 9. (6.) In apparatus for opening and closing taps, valves, switches, and the like, the means for preventing the tap-actuating mechanism being set in motion consisting of a lever 36, lug 33 on a cam 30, said lever engaging with said lug when operated by a suitable handle, substantially as described and as illustrated.

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

No. 19646.—28th June, 1905.—FRIEDRICH WILHELM DUPRÉ, of 1, Gartenstrasse, Leopoldshall, Anhalt, German Empire, Doctor of Philosophy, Chemist. Improvements in processes of extracting gold from its ores.

Claims.—(1.) The process of extracting gold from its ores, consisting in subjecting the ores to the dissolving action of aqueous solutions of cyanides in the presence of alcohols. (2.) The process of extracting gold from its ores, consisting in subjecting the ores to the dissolving action of aqueous solutions of cyanides in the presence of ethyl alcohol.

(Specification, 2s. 6d.)

No. 20055.—18th September, 1905.—RICHARD STONE HAUGHON, of 73, Austin Street, Wellington, New Zealand, Factory-manager. Improved means for emptying tins of kerosene, turpentine, and other liquids.*

[NOTE.—The title in this case has been altered. See list of provisional specifications, *Gazette* No. 88 of the 5th October, 1905.]

Claim.—The improved means for emptying kerosene tins and the like, the same consisting of an open-topped receptacle adapted to receive the tin to be emptied, and provided with brackets for supporting the tin at a distance from the bottom of the receptacle, with a spike adapted to pierce and

enter the bottom of the tin when placed upon the brackets so as to allow of the liquid passing into the receptacle, and with means whereby the liquid contained in the receptacle may be drawn off therefrom as required, substantially as specified.

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

No. 20215.—24th October, 1905.—CHARLES EDWIN HAYWARD, Jun., Farmer, and WILLIAM EDWARD HUNTER, Blacksmith, both of Maungakarama, Auckland, New Zealand. An improved appliance for leg-ropes, hobbles, and the like.

Claims.—(1.) The general arrangement, construction, and combination of parts constituting our improved appliance for leg roping cows and the like, substantially as described and illustrated. (2.) For the purpose indicated, a snap-catch which is opened, closed, and fastened by means of a ring to which the rope is affixed, as specified and set forth in drawings. (3.) In the construction of snap-catch of the kind referred to, two separate pieces laid one on the other and secured by bolt and nut or rivet, substantially as specified and illustrated.

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

No. 20228.—25th October, 1905.—JOHN FRANCIS MCNEILL, of corner of Spencer and Bourke Streets, Melbourne, Victoria, Australia, Gentleman. Improvements in go-carts and the like.

Claims.—(1.) A go-cart or the like having rear supporting legs fixed and of such length and position that when the go-cart is in its wheeling position the gutter wheels may be raised to clear kerb-stones, steps, or the like obstacles by lowering the pushing-handles and means whereby the go-cart body may be lowered, bringing said fixed legs into a position to contact with the ground, substantially as described. (2.) A go-cart or the like having a cranked axle-bar in combination with operating means whereby the go-cart body may be lowered relatively to the main wheels and raised back to its normal position, substantially as and for the purposes set forth. (3.) In go-carts and the like, a fulcrumed operating rod or lever connected to the main wheel axle-bar and provided at its rear end with a treadle portion, substantially as and for the purposes set forth. (4.) In go-carts and the like, a fulcrumed operating rod or lever made in two parts, hinged or otherwise coupled, said rod or lever being provided with axle-bar connections and foot-operating means, substantially as and for the purposes set forth. (5.) In go-carts and the like, the combination of the parts, substantially as illustrated in Fig. 4 of the drawings and for the purposes set forth. (6.) In go-carts and the like, in combination with an axle-bar of the class described, bearings provided with a stop or stops to prevent the too-far-forward motion of the said axle-bar, substantially as described and as illustrated in the drawings. (7.) In go-carts and the like, the combination as a whole of the parts, substantially as described and as illustrated in Fig. 1 of the drawings. (8.) In go-carts and the like, the combination of the parts, substantially as described with reference to Fig. 8 of the drawings and for the purposes set forth.

(Specification, 6s.; drawing, 1s.)

No. 20271.—23rd June, 1905.—ARTHUR JOHN HUBBARD, of 5, Ravensbourne Gardens, West Ealing, London, England, Doctor of Medicine, GEORGE HUBBARD, F.R.I.B.A., of 85, Gresham Street, London aforesaid, and ALFRED WILLIAM STEPHENS CROSS, M.A., F.R.I.B.A., of 46, New Bond Street, London aforesaid, Architects. Improvements in reservoirs for collecting dew.

[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.) Reservoirs for collecting dew, in which an excavated basin is provided with a compound lining possessing impermeable and non-conducting qualities—for instance, a compound lining comprising superimposed layers of impermeable material and non-conducting material, which lining may be placed upon a concrete foundation and be covered with a layer of water-retaining material or with porous bricks, substantially as described. (2.) Reservoirs for collecting dew according to claim 1, wherein the compound lining comprises two layers of asphalt and an interposed layer of asbestos, the edges of the two layers of asphalt being connected so that the interposed layer is completely enclosed, substantially as described. (3.) Reservoirs for collecting dew constructed as described with reference to and shown in the drawing.

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

No. 20292.—10th November, 1905.—PERCY YATES HARRISON, of 88, Beamsley Road, Frizinghall, Bradford, York, England, Commission Agent, and ROBERT HEAP SOUTHALL, of 19, Hamilton Terrace, Leeds, York, England, Boot and Shoe Manufacturer. Improvements in or relating to detachable top pieces for the heels of boots and shoes.

Claims.—(1.) In appliances for attaching detachable top pieces to the main portion of boot and shoe heels, substantially as described and illustrated, the employment of a plate shaped as described and having formed in and upon it a number of locking devices consisting essentially of hooks in the form of triangular or equivalent inclined projections arranged in pairs on opposite portions of the plate, said locking hooks or projections being arranged to mesh and interlock with correspondingly constructed locking devices of a second plate, whereby as the one plate slides over the other into position the projections become meshed and drawn together, but always so cut, shaped, and formed that when the two plates are locked the projections of either of them shall lie within the thickness of the other, substantially as described and illustrated. (2.) In appliances for attaching detachable top pieces to the heels of boots and shoes, the combination of two plates of the same size and contour adapted to slide one upon the other, each of the plates being provided with slots and triangular inclined projections arranged in pairs at opposite portions of each plate, said slots and projections being capable of interlocking within the thickness of the two plates with each other for holding the plates together, one of the said plates being also provided at or near its rear with a horizontally faced projection and with one or more pins at or near its breast, said projection and pins being adapted to engage with holes formed for their reception in the second plate for preventing the displacement of the plates relatively to one another when in use, all constructed and arranged substantially as described, and as illustrated in the drawings. (3.) The means described for holding an indiarubber top piece to the detachable plate *f*, said means consisting of a skeleton flange or projections in the form of an intumed peripheral flange, arranged and constructed substantially as described and illustrated. (4.) The combination and arrangement of the various parts constituting the means for attaching the detachable top pieces to the main portions of boot and shoe heels, substantially as described, and as illustrated in the drawings.

(Specification, 13s. 6d.; drawings, 3s.)

No. 20306.—11th November, 1905.—FRANCES ELIZABETH MCCREA, wife of Hugh Gamble McCrea, of Northcote, near Auckland, New Zealand, Clerk. An improved pillow-lace loom.

Claims.—(1.) A pillow-lace loom consisting of a frame board with piece cut thereout, and a padded cylinder let therein, said cylinder being journaled to two upright bearers, secured to said frame board, a ratchet wheel being attached to said cylinder and controlled by a spring pawl attached to said frame board, a detachable tray pan being fitted to the frame board all for the purpose set forth, substantially as described and as illustrated in the drawings. (2.) The arrangement, construction, and combination in a pillow-lace loom of a frame board, padded cylinder with a ratchet wheel attached thereto, a spring pawl, bearer plates, a tray pan, and bobbins all for the purpose set forth, substantially as described and as illustrated in the drawings.

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

No. 20311.—14th November, 1905.—AKTIEBOLAGET SEPARATOR, of 8, Flemminggatan, Stockholm, Sweden (assignees of Birger Ljungstrom, of 8, Flemminggatan, Stockholm aforesaid, Engineer). Improvements in and relating to centrifugal separators for liquids.

Extract from Specification.—Our invention refers to separators having bowls or drums of the type just explained, the object being to feed the milk in such a way that it is uniformly distributed to the spaces of the liner or division contrivance, and that only short and large inlet passages are used which are easy to clean. Therefore, according to our invention, the whole milk is fed at the top of the liner or division contrivance instead of the bottom. For this purpose we dispose the feed-pipe for the whole milk centrally, and provide contiguous to it, between the liner or division contrivance and the adjacent face of the bowl or drum, an enlargement wherein we furnish passages communicating with the feed-pipe and the liner or division contrivance, for conveying to the latter the milk supplied to the feed-pipe. Further, in the enlargement, or in a part thereof, we form passages for leading the separated cream from the cream zone towards its point of discharge, such passages being distinct from those before mentioned for the whole milk.

The enlargement may be wholly on and integral with either the upper plate of the liner or division contrivance or the feed-pipe, or it may be partially on and integral with the feed-pipe and partially on and integral with the upper plate, or it may be partially on and integral with the feed-pipe and partially a ring detached from both the feed-pipe and the upper plate, or it may be on and integral with the feed-pipe and the upper plate, both of which are formed in one piece. Again, the enlargement may be continuous—i.e., in the form of a ring; or it may be wholly or in part interrupted, a plurality of sections being obtained in consequence.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

(Specifications, 11s.; drawing, 2s.)

No. 20312.—14th November, 1905.—SERGE BERDITS-CHEWSKY APOSTOLOFF, of 93 and 94, Upper Thames Street, London, England, Engineer. An improvement in separating and utilising the floury constituent of middlings and the like.

Claim.—The described improvement in the manufacture of bread which consists in soaking the middlings in water, adding yeast to the liquor and fermenting so as to dissolve or detach the floury constituent from the bran or insoluble portion of the middlings, straining the liquor by means of a bolter and thereafter passing the liquor into the kneader and using it in admixture with flour to make dough, substantially as described.

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

No. 20326.—16th November, 1905.—THOMAS HENRY HAWKINS, usually and commonly known as Thomas Hawkins, of Granville Road, Forest Gate, London, England, but presently of Birchgrove, Balmain, near Sydney, New South Wales, Engineer. A combined lamp and apparatus for generating and storing acetylene gas.

Claims.—(1.) Apparatus for generating and burning acetylene gas, in which the gas is allowed to pass directly from the generator to the burner, and in which the feed water is kept separate from the water in the gas-storage reservoir, substantially as described. (2.) Apparatus for generating and burning acetylene gas, comprising a carbide-holder, disposed within or surrounded by a feed-water chamber, and having a central tubular portion in communication with a storage reservoir separated from the said feed-water chamber by an intervening chamber, into which air is admitted or discharged by means of a regulated outlet pipe, the said intervening chamber communicating with the lower part of the storage reservoir, for the purposes specified. (3.) The combination of an annular feed water chamber having an adjustable air-pipe passing through the plug pertaining to the filling orifice, an intervening chamber having a pipe serving as an inlet, outlet, or safety pipe and provided with a regulating-valve, a storage-reservoir communicating with the aforesaid intervening chamber and with the carbide-holder, and a regulated pipe communicating between the feed-water chamber and the carbide-holder, substantially as and for the purposes specified. (4.) Apparatus, having its parts constructed, arranged, and adapted to operate substantially as described with reference to either of the examples illustrated in the drawings for the purposes specified.

(Specification, 5s.; drawings, 2s.)

No. 20334.—20th November, 1905.—EDWIN PHILLIPS, of 533, Collins Street, Melbourne, Victoria, Australia, Patent Attorney and Engineer, nominee of Edward Huntington Fallows, of 170, Broadway, New York, United States of America, Attorney at Law (the assignee of James Herbert Cayford, of East St. Louis, Illinois, United States of America, Engineer). Improvements in or relating to rendering apparatus.

Claims.—(1.) A digestion and oil and grease separating apparatus of the class described, comprising a vessel having within it a vertically adjustable funnel movably mounted and connected to a discharge conduit, in combination with means for moving said funnel from a point below the normal level of the oil and grease to a point above the bottom of the charging opening of the vessel, and means for creating in said vessel a greater pressure than in said discharge conduit, as and for the purpose described. (2.) A digestion and oil and grease separating apparatus of the class described, comprising means for raising and lowering the cone or funnel, consisting of a screw upon which said cone or funnel is mounted as a nut, as and for the purpose described. (3.) A digestion and oil and grease separating apparatus of the class described, comprising a vertically movable cone or funnel

provided with a pipe having a telescopic connection with a discharge pipe, substantially as set forth and as and for the purpose specified. (4.) Digestion and oil and grease separating apparatus constructed, arranged, and adapted to operate substantially as set forth and as and for the purposes described.

(Specification, 6s.; drawing, 1s.)

No. 20336.—20th November, 1905.—HARRY TOM SMITH and ALFRED EVELYN BROWN, both of Christchurch, New Zealand, Engineers. An improved station-indicator.

Claims.—(1.) In a station-indicator, drums carrying a name band, and mechanism in one of the drums for revolving it a part of a revolution at a time by magnetic attraction between its parts, as described. (2.) In a station-indicator, a driving-drum in which are bobbins for magnetically exciting pole-pieces and discs or armatures having projections which are also excited and attracted by the pole-pieces, whereby the armatures, and through them the drums, are revolved, as specified. (3.) In a station-indicator, a spindle in a drum, a bobbin as 9 fast upon the same, a core, and pole-plates upon the core and pole-pieces secured to the pole-plates alternately from each end, armatures having projections which run loosely about the spindle and secured to the drum and which are excited separately from the pole-pieces, which projections the pole-pieces attract, as specified and for the purpose set forth. (4.) In a station indicator, the use of a bobbin upon which are mounted pole-pieces presenting alternately in rotation at each end a N. and S. pole, a complementary bobbin adjacent to either end of the principal bobbin, each complementary bobbin exciting an armature having projections coming within the lines of force of the pole-pieces, and one complementary bobbin exciting an armature coming within the lines of force of pole-pieces upon a supplementary bobbin as 11 in series with the principal bobbin, as and for the purposes specified. (5.) In a station-indicator, in which are drums carrying a name band, a solenoid adapted to oscillate the spindle of the actuating-drum, and with the spindle pole-pieces presenting alternately N. and S. poles to armatures, projections upon the armatures which are so placed relatively to the altered position of the pole-pieces due to oscillation of spindle that the armatures are rotated backwards, as and for the purposes specified. (6.) In a station-indicator, in combination, a solenoid and a rocking-lever as 31, a pair of ratchet-plates upon a drum end, the teeth of one plate being set reversely to the teeth of the other plate, pawls engaging the ratchet-plates and legs upon the rocking-lever that govern said pawls' engagement with the plates, as described and explained.

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

No. 20339.—20th November, 1905.—THOMAS HENRY WILSON, of Norman Park, Brisbane, Queensland, Australia, Brassfounder. Improvements in journal bearings.

Claims.—(1.) In improvements in journal bearings, a composite bearing formed of an upper portion of brass, gun metal, phosphor-bronze, or suchlike superior metal, interlocked by an intermediate metal of lower melting-point to a frame or base of inferior metal, as described and illustrated by drawings. (2.) The combination of parts, consisting of three metals of different value forming a composite bearing, as set forth.

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

No. 20344.—22nd November, 1905.—GEORGE MIDDLETON, of Putney, London, England, Coachbuilder. Improvements in or relating to wheels for road vehicles.

Claims.—(1.) The use of a ring or rim carrying a pneumatic tube, said ring being free to rotate round the axle sleeve and with respect to the flanges attached to said sleeve, substantially as and for the purposes described. (2.) The method of constructing hubs in the manner described and illustrated in the figures.

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

No. 20346.—22nd November, 1905.—WILLIAM JOSEPH WINCE, of Egan Street, Kalgoorlie, Western Australia, Australia, Plumber. Improvements in beer and other pumps.

Claims.—(1.) In improvements in beer and other pumps, a rod or pin (as *d*) mounted in bearings (as *e*) in line with the movement of the valve or valves, substantially as described and illustrated. (2.) In improvements in beer and other pumps a cam or eccentric (as *g*) mounted upon a spindle (as *h*) provided with a handle (as *j*) in combination

with the valves of the said beer or other pump, substantially as described and illustrated. (3.) In improvements in beer and other pumps, a cam or eccentric (as *g*) mounted upon a spindle (as *h*) in combination with a rod or pin (as *d*), mounted in bearings in juxtaposition to the valves of a beer or other pump, substantially as described and illustrated. (4.) In improvements in beer and other pumps, a casting or pipe (as *f*) secured under a beer or other pump (as *c*) and containing means for raising or opening the valves of the pump, substantially as described and illustrated. (5.) In improvements in beer and other pumps, arrangements for raising or opening the valves of pumps, and thereby emptying the said pumps of their contents, substantially as described and illustrated. (6.) The improvements in beer and other pumps, substantially as and for the purposes described and illustrated. (7.) In improvements in beer and other pumps, means for emptying the said pumps of their contents, substantially as described and illustrated.

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

No. 20348.—22nd November, 1905.—ALBERT JOHN COYLE HUGO, of 167, Forrest Street, Kalgoorlie, Western Australia, Australia, Mechanical Engineer. Locomotive valve-setting machine.

Claim.—An improved device for the setting or adjusting of the slide-valves of locomotive-engines, consisting of two sets of rollers mounted in suitable carriers or boxes interposed in the ordinary track and intended to support the driving-wheels of a locomotive-engine, and means for rotating such rollers, all for the purpose of and as fully described and illustrated.

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

No. 20349.—22nd November, 1905.—THE ARCANUM, LIMITED, Manufacturers (a British joint stock company of limited liability, duly incorporated under British laws, whose registered offices are 94, Cannon Street, London, England), assignees of Leslie James Moser, of 94, Cannon Street, London, England, Engineer. Improvements in or relating to apparatus for the manufacture of mineral waters and their delivery on draught, applicable to analogous or other purposes.

Claims.—(1.) Apparatus for the manufacture of aerated water and for producing a variety of mixed aerated beverages by mixing same while in the act of delivering each said beverage from said apparatus, comprising an aerating-chamber, a source of supply of aerating-gas adapted to maintain a constant supply of such gas under pressure in the aerating-chamber, means to supply water to said aerating-chamber, a safety valve in said aerating-chamber to relieve any excess of the desired pressure in said aerating-chamber, an aerated-water measuring-bottle and means to alternatively place same either in connection with the water-aerating chamber or with the beverage-delivery spout, a series of measuring-valves for measuring the desired quantum of alcohol, syrup, essence, extract, or other flavouring, and delivering any one of same at the beverage-delivery spout, and mechanism synchronously operated by the same lever that causes the discharge of the contents of the aerated-water measuring-bottle to cause the discharge of the measured quantity of alcohol, syrup, &c., from any one of said valves so that such measured quantity of alcohol, syrup, &c., is delivered simultaneously with the aerated water and mixed therewith in the act of delivery of the said beverage from said delivery-spout. (2.) An aerating-chamber or saturator for the manufacture of aerated water for use in apparatus of the character described, such aerating-chamber comprising means to deliver the water to be aerated into the top part of the aerating-chamber 3 in a finely divided condition, a water-gauge such as 11 on the exterior of said chamber, and a safety valve such as 12 in the upper part of said chamber so as to relieve any excessive pressure which may arise in the aerating-chamber, substantially as and for the purposes described with reference to Figs. 1, 2, and 3 of the drawings. (3.) A snifting device in conjunction with the aerated-water measuring-bottle for use with apparatus of the character described, comprising a gas pressure-relieving pipe, one end of which is in communication with the upper part of the interior of the measuring-bottle and having the other end of said communicating-pipe normally closed, and means to first close communication between the measuring-bottle and the water-aerating vessel and next open said relief-pipe to the atmosphere to thereby allow the gas pressure in said measuring-bottle to escape, and then open communication from said aerated-water measuring-bottle to the beverage-delivery spout to thereby allow the contents of the measuring-bottle to flow out by gravity alone. (4.) A system of valves for measuring and delivering alcohols, syrups, or other flavouring-liquids synchronously (and in regulated

proportion) with the delivery of, and so as to be mixed with, aerated water, for use in apparatus of the character referred to, wherein each said valve has each of the double pistons formed with a leather bucket, having located within same a rubber ring which is expanded radially by adjusting means such as the screw nut 65 acting on the conical washers 67 and 68 to thereby expand the leather bucket equally all round against the inside wall of the valve cylinder 70. (5.) Apparatus for the manufacture of aerated water and for producing a variety of mixed aerated beverages, which are mixed while in the act of delivering each respective beverage, constructed, combined, and arranged to act substantially in the manner and for the purposes described with reference to and as illustrated in Figs. 1 to 13 and 17 to 19 of the drawings. (6.) Apparatus for the manufacture of aerated water and for producing a variety of mixed aerated beverages, which are mixed while in the act of delivering each respective beverage, constructed, combined, and arranged to act with the modified snifting device illustrated in Figs. 14 to 16 of the drawings.

(Specification, 19s.; drawings, 8s.)

No. 20350.—22nd November, 1905.—JOHN RUTHERFORD PARK, of 55, Lambton Quay, Wellington, New Zealand, Registered Patent Agent (nominee of Lon A. Bond, of Logansport, Indiana, United States of America, Manufacturer). Waterproof fabric, and method of making the same.

Claims.—(1.) The described method of making waterproof fabric, which consists in saturating the fabric with molten highly fluid asphalt of a high degree of purity, to impregnate the fibres and fill out the pores between them, and then drying the saturated fabric. (2.) The method of waterproofing textile fabric according to claiming clause 1, and in addition thereto applying to the surface of the fabric a drying powder and then polishing the surface. (3.) As a new article of manufacture, waterproof fabric in which the fibres of the fabric are saturated, and the pores between the fibres are filled, with asphalt.

(Specification, 6s.; drawing, 1s.)

No. 20351.—22nd November, 1905.—ROBERT GEORGE GIBBONS, of 79, Pitt Street, Sydney, New South Wales, Australia, Mining Agent (assignee of Parnell Rabbidge, of 70, Water's Road, Neutral Bay, near Sydney aforesaid, Electrician). An improved dynamo electric generator.

Extract from Specification.—In giving effect to this invention, I interpose rings or discs of iron, or of any other suitable magnetic conductor, between the revolving armature conductor and the stationary field. These rings or discs are adapted to revolve with the armature, and are magnetised by coils of wire that carry a current of electricity in a direction which will induce magnetic poles in the revolving rings of a polarity opposite to that induced by the stationary field. These rings or discs thus become the nearest magnetic field to the armature conductors. Instead, now, of the armature conductors dragging on to the nearest stationary field, the drag will take place on to the rings or discs, and as the rings or discs revolve with the armature, they would, as a result, intercept the drag between the armature and the stationary field. In the present type of machine this drag greatly retards the motion of the armature.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

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

No. 20353.—22nd November, 1905.—ASPLAN BELDAM, M.I.M.E., GEORGE WILLIAM BELDAM, M.A. Cantab., and CYRIL ASPLAN BELDAM, M.A. Cantab., all of 93 and 94, Gracechurch Street, London, England, Manufacturers (assignees of George Hunter Robinson, of 15, Manisforth Terrace, Sunderland, Durham, England, Engineer). Improvements in packings for rods and plungers.

Extract from Specification.—The packing according to this invention is of spiral form, and is adapted to be adjusted to or in relation to the rod or part to be packed, by winding or pulling on, by mechanical means, one or both ends, or a suitable part or parts of the packing, and it comprises a portion or part which presses on the surface of the rod or part to be packed and a band, cord, chain, spiral spring, or the like, in connection with the said former part, by means of which the actual tension on, or support to, and adjustment of the packing in relation to the part in connection with which it works is effected.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

(Specification, 5s.; drawings, 2s.)

No. 20359.—23rd November, 1905.—JAMES ROBINSON HATMAKER, of No. 25, Rue de la Faisanderie, Paris, France, Gentleman. Dry compound of coffee and milk (with or without sugar), and process for making same.

Claims.—(1.) Dry homogeneous compounds of milk and coffee-extract (with or without sugar or other substances) in light flaky form, obtained substantially as described. (2.) The process of obtaining homogeneous compounds of milk and coffee-extract (with or without sugar or other substances) in light dry flaky form, which consists in first preparing a liquid mixture of milk and coffee-extract (with or without the addition of sugar or other substances) and in then drying it rapidly by suitably exposing it for a limited time to a temperature in excess of 212° F., substantially as described in the specification of letters patent of New Zealand, No. 16287.

(Specification, 2s. 6d.)

No. 20360.—23rd November, 1905.—JAMES ROBINSON HATMAKER, of No. 25, Rue de la Faisanderie, Paris, France, Gentleman. Improvements in drying blood and fluid extracts and preparations of animal tissue with or without the addition of other substances.

Claims.—(1.) Blood or extracts of animal tissue, in light powder or flaky form, obtained by rapidly evaporating the water contained in liquid blood or fluid extracts or preparations of animal tissue by exposing them in a very thin uniform film or layer, for a limited time, to a temperature in excess of 212° F., substantially as described. (2.) Dry compounds of blood, or of extracts of animal tissue, and other substances, in light powder or flaky form, obtained by rapidly evaporating the water contained in liquid mixtures of blood or of fluid extracts or preparations of animal tissue and other substances, by exposing them in a very thin uniform film or layer, for a limited time, to a temperature in excess of 212° F., substantially as described. (3.) The described process of drying blood or fluid extracts or preparations of animal tissue (with or without admixture of other substances), which consists in exposing the said blood or fluid extracts or preparations in a very thin uniform film or layer to a temperature in excess of 212° F. until they are reduced to dryness, and in then removing the dry solids from the influence of such temperature.

(Specification, 3s.)

No. 20361.—24th November, 1904.—JAMES ROBINSON HATMAKER, of No. 25, Rue de la Faisanderie, Paris, France, Gentleman. Improvements in drying fruits and vegetables containing sugar and preparations of such fruits and vegetables.

[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.) Fruits and vegetables containing sugar, deprived of their unnecessary water and in solid conservable form, obtained by drying the liquid pulp of fruits and vegetables containing sugar, as described. (2.) The solids of fruits and vegetables containing sugar, in dry conservable form and sterile, obtained by drying the liquid pulp of fruits and vegetables containing sugar, as described. (3.) Dry compounds consisting of the solids of fruits and vegetables containing sugar, and other substances, obtained by drying liquid or pulpy mixtures of fruits and vegetables containing sugar and other substances, as described. (4.) The described process of drying fruits and vegetables containing sugar, or mixtures of such fruits and vegetables and other substances, which consists in first reducing such fruits and vegetables (or mixtures) to a more or less liquid pulp, and then evaporating the unnecessary water of such pulp by exposing the pulp in a very thin uniform film to the evaporative influence of a temperature sufficiently high to cause a rapid—almost instantaneous—evaporation of its contained water, substantially as described. (5.) The described process of drying fruits and vegetables containing sugar (or mixtures of such fruits and vegetables and other substances) which consists in first reducing such fruits and vegetables (or mixtures) to a more or less liquid pulpy state, and then evaporating their contained water by exposing them in a very thin uniform film upon a suitable surface heated in excess of 212° F. until they are reduced to a solid conservable state, substantially as described.

(Specification, 3s. 3d.)

No. 20367.—18th November, 1905.—ALFRED BILLENS, of Christchurch, New Zealand, Manufacturer. Improvements connected with means for spraying rows of plants.

Extract from Specification.—I propose to use an ordinary form of spray pump which is strapped to the shoulders of the

operator. Attached to the hose of the pump is a tube, in the end of which is a branch from which radiate other pipes on which are the atomizers. The pump can thus be operated to supply the mixture to two rows at a time; but as the rows or drills are not always the same distance apart, it is clear that a pump that is suitable for spraying one field might not be convenient to use in another. It is to overcome this difficulty that I have devised my invention, which consists in constructing the branch so that the radiating pipes may swivel therein. It will therefore be possible to use the apparatus upon rows whose width may vary.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

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

No. 20368.—23rd November, 1905.—ARTHUR WILLIAM LOONE, of Scottsdale, Tasmania, Australia, Storekeeper (assignee of Walter Kilworth, of Scottsdale aforesaid, Saddler). An improved bicycle toe-clip, to be used on cycles and the like.*

Claim.—In a toe-clip for cycles and the like, a piece of leather or suchlike material, such as A, cut in such a manner so as to form straps or tongues, such as B, such leather portion having therein slits or holes, such as C, for the insertion therethrough of the straps or tongues in the manner described and as illustrated in the drawings for the purpose set forth.

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

No. 20383.—28th November, 1905.—WILLIAM NICOL, of Wanganui, Wellington, New Zealand, Labourer. Improved apparatus for removing coal and the like from railway-trucks.

Claims.—(1.) In apparatus for the purpose indicated, a shaft mounted in bearings attached to a frame, a tumbler fixed to a sleeve mounted slidably upon and revolving with the said shaft, a ladder pivoted at its upper end to said sleeve, a rope attached to each side of the ladder, and pulleys over which the said ropes pass, substantially as set forth. (2.) Apparatus for the purpose indicated, comprising a staging erected over a railway-line, rails secured to the top of the staging, a framing mounted upon wheels running on the said rails, a shaft mounted in bearings attached to the frame, a tumbler fixed to a sleeve mounted slidably upon and revolving with the said shaft, a ladder pivoted at its upper end to said sleeve, a rope attached to each side of the ladder, pulleys over which the said ropes pass, a tumbler mounted upon the lower end of the ladder, a chain of buckets surrounding the ladder and its tumblers, means for raising and lowering the bottom end of the ladder, a dumping plate upon which coal is delivered from the buckets, a conveyor upon which coal is delivered from the dumping plate, and means for operating the conveyor, substantially as set forth. (3.) The combination and arrangements of parts comprising the improved apparatus for removing coal and the like from railway-trucks, substantially as and for the purposes specified and as illustrated in the drawings.

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

No. 20402.—29th November, 1905.—JOHN ANDERSON and JAMES DEWAR HUNTER, both of Moray Place, Dunedin, New Zealand, Engineers and Brassfounders. Improvements in liquid measuring.

Claims.—(1.) In a liquid-measuring machine, the combination of the revolving body and buckets of said machine, of known capacity, with a small regulating-tank for automatically regulating the supply and delivering the liquid to the said buckets at a uniform pressure by the action of the special valve and ball float, and also determining the quantity delivered by setting the adjustable registering-wheel, which is capable of being altered so as to register to the right or to the left as found most convenient, said registering-wheel automatically cutting off the supply when the quantity for which it has been set has been passed to the said buckets, all substantially as set forth and as shown on the drawing. (2.) In a liquid-measuring machine, the combination of a machine consisting of a set of revolving buckets regulated by a lever pressing on a stepped cam so as to bring bucket by bucket to the proper position for filling, the supply being automatically and uniformly controlled by a direct-acting special valve and ball float, and the liquid being automatically cut off when the amount for which the registering-wheel was set for has passed to the machine, all substantially as described and as explained and as illustrated in the drawing.

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

No. 20412.—6th December, 1905.—MARINE CONSTRUCTION COMPANY, of San Francisco, California, United States of America (assignees of John David Murray, of San Francisco aforesaid). Improvements in sand-blast apparatus.

Claims.—(1.) Sand-blast apparatus, consisting of a receiver enclosing a sand-hopper, air-pipes connected so as to establish an air pressure in the receiver and also in the hopper when desired, a sand-valve in the bottom of the hopper which can be operated from the outside, a sand-ejector in the receiver beneath the hopper communicating with the latter by means of said valve, and flexible pipes leading from said sand-ejector and said receiver, respectively, and communicating with the nozzle. (2.) In sand-blast apparatus, a nozzle for discharging air and sand, which nozzle has a central passage for air and an oblique passage for sand, and a cock for regulating the discharge of sand through the sand passage, the said nozzle being connected by flexible pipes with means for supplying air and sand. (3.) In sand-blast apparatus, a nozzle for discharging air and sand, said nozzle being provided with removable tips which are lined with elastic material on their surfaces which are exposed to the abrasive action of sand.

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

No. 20413.—6th December, 1905.—ALFRED HARRINGTON, of Harrison Road, Leicester, England, Boot-finisher, and WILLIAM SPIERS, of "XL" Engineering Works, Queen Street, Leicester aforesaid, Engineer. Improvements in or relating to boot and shoe machinery.

Extract from Specification.—A machine constructed in accordance with this invention comprises a holder or carrier for the boot and mechanism for automatically presenting or holding the boot to the operating-tool and guiding it there-against so that it is maintained in constant contact with the tool until the operation is completed, when the operator removes the boot and inserts another in its place. The holder or carrier is constructed in such a manner that the boot is gripped or clamped thereby, and can be instantly released and placed in position in the shortest possible time. The carrier is supported and moved in relation to the finishing-tool in both a longitudinal and lateral direction, the longitudinal movement taking each side of the boot past the tool, and the lateral movement causing the toe of the boot to pass the tool. This compound movement is effected by means of two slides, whose movements are in a horizontal plane at right angles to each other derived from suitable intermediate mechanism between them and the driving-shaft, the said slides having counterweights and springs, or equivalent means arranged in connection therewith to insure the boot being held with sufficient pressure against the tool to overcome the resistance offered by the movement of the tool. The tool by which the finishing operation is effected may, if it be a circular tool, be carried on the end of a rotating or reciprocating vertical spindle having a constant position in relation to the carrier, and be operated from gearing between it and the driving-shaft if a continuous rotary motion is required, or by a crank and connecting mechanism with the driving-shaft if a reciprocating movement of the tool is preferable. The said two slides, by which the boot and its carrier or holder are carried, are operated by the following mechanism: The upper slide which actually carries the boot-holder is actuated by a series of levers and connecting-rods or equivalent operated from a crank on a wormwheel driven by a worm on the driving-shaft. The lower slide or carriage in which the upper slide fits receives its lateral motion from a lever operated directly from a driven shaft.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

(Specification, 13s.; drawings, 4s.)

No. 20414.—6th December, 1905.—ALFRED HENRY MCNEIL, of 54, Thornby Road, Clapton, London, England, Engineer. Improvements in electric fire-alarms and thermo-indicators.

Extract from Specification.—In carrying out this invention the thermal strip is fixed on projections from a base-box, and a plunger attached to the strip passes through a hole gland or flexible diaphragm into the box. The contacts are carried by an insulating base fixed in the box, one contact being a flat spring arranged in the path of the insulated end of the plunger, and the other a brass plate carrying an adjustable contact screw and a fixed dial. The electrical leads are led into the box through glands or the like and connected to the contacts. The box is closed by a removable lid suitably packed.

[NOTE.—The above extract from the specification is inserted in place of the claims.]

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

No. 20415.—6th December, 1905.—ERNEST GEORGE MARLOW, of Austey Street, Claremont, Western Australia, Australia, Engineer, and FREDERICK CHARLES CONSTABLE, of Perth, Western Australia aforesaid, Merchant. Automatic skimmer for steam-boilers.

Claim.—An appliance of the character described having a bell or funnel mouth as *a* and *a1*, which is secured within the boiler *b1*, said bell-mouth being in connection with a discharge-pipe as *b* having control or blow-off plugs as *c* and *c1*, substantially as and for the purposes explained and as illustrated in the drawings.

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

No. 20417.—7th December, 1905.—JOHN HANLON, of Ballarat, Victoria, Australia, Press Artist. Improvements in engraving-plates.

Claims.—(1.) In an engraving-plate, the combination—upon a metallic or like back-plate—of a “basic” layer, a “central” layer, and a “surface” layer in the order stated, substantially as and of the materials described. (2.) In an engraving-plate, having a metallic or like back-plate, the employment of a mixture containing kaolin, infusorial earth, and French chalk in combination as described upon a layer composed of kaolin or the like. (3.) In an engraving-plate, having a metallic or like back-plate, the combination of three layers containing substantially the parts aforesaid in substantially the proportions set forth.

(Specification, 2s. 9d.)

No. 20418.—7th December, 1905.—CORNELIUS MAASKANT, residing on the property of the Central South African Railways, Waterval Boven, Transvaal, District Traffic Inspector. Improvements in means for preventing unauthorised access to the contents of railway-trucks and other similar vehicles.

Claims.—(1.) Apparatus of the nature indicated, comprising an electrically operated lock (or locks) fitted to the door (or doors) of the truck or vehicle, switches and a switch-board located inside the truck or vehicle, said switch-board being constructed to provide a plurality of contacts for each switch, conductors from the switches to the lock (or locks), and an electric battery, the terminals of which are adapted to be brought into contact with any of the contacts of the switch-board, substantially as and for the purpose set forth. (2.) Apparatus of the nature indicated and as claimed in the preceding claim in which the battery is constructed with revoluble terminals fitted with conductor-pins which are adapted, after said revoluble terminals have been placed in corresponding positions to the switches on the switch-board, to be passed through holes formed through the truck to make contact with the contacts on the switch-board to close the circuit to release the lock or locks, substantially as described and shown. (3.) In apparatus of the nature indicated, and as claimed in claim 1, the electrically operated lock, consisting of the revoluble catch adapted to engage the spring-catch or bolt in the door, said revoluble catch being provided with pins or projections which are engaged by spring-controlled levers actuated by an armature operated by an electro magnet or magnets, substantially as described and shown. (4.) Apparatus of the nature indicated in which the parts are constructed and arranged to operate in combination, substantially as described in connection with and as illustrated in Figs. 1 and 3 to 10, or Figs. 2, 3, and 11 of the drawings.

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

No. 20419.—7th December, 1905.—THE BRITISH AMERICAN MACHINERY COMPANY, LIMITED, of 36, Featherstone Street, London, England, Engineers (assignees of Edward Thomas Pollard and Emil Leo Behrmann, both of 36, Featherstone Street, London aforesaid, Engineers). Improvements in machines for making boxes from card or paper and filling them with cigarettes or other articles.

Extract from Specification.—This invention relates to improvements in machines for making boxes or cases from a web of paper or card and filling them with cigarettes or other articles, the paper of a width sufficient to make the box required being drawn off, printed in one or more colours, and then scored and cut by a die which forces it into one of a series of moulds formed transversely across the circumference of an intermittently rotated wheel, in which the box is formed, filled, and closed.

Claims.—(1.) In machines for making, filling, and closing card or paper boxes, the paper feed mechanism substantially as described with reference to the drawings. (2.) In machines for making, filling, and closing card or paper boxes, the filling mechanism substantially as described with refer-

ence to the drawings. (3.) In machines for making, filling, and closing card or paper boxes, the mechanism for holding back the top of the box to enable the flap to be tucked into the slit in the back, substantially as described with reference to the drawings. (4.) Machines for making, filling, and closing card or paper-boxes, substantially as described and illustrated.

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

No. 20422.—7th December, 1905.—GEORGE JACKSON HENRY, Jun., of 127, Main Street, San Francisco, California, United States of America, Hydraulic Engineer. Hydraulic nozzle.

Claims.—(1.) A nozzle for hydraulic motors connected to a main line water-supply pipe by a deflectable joint, and being provided with means for varying the cross sectional outlet area of the nozzle, said nozzle having associated therewith means for deflecting the same to vary the direction of the jet issuing therefrom in accordance with changes in the working load of the motor driven thereby. (2.) A nozzle for hydraulic motors connected to a main line water-supply pipe by a deflectable joint and being provided with means for varying the cross sectional outlet area for the stream issuing therefrom, said nozzle having associated therewith means for deflecting the same to control the direction of the issuing stream jet in accordance with changes in the working load of the motor driven thereby, and hydraulically actuated means for holding the deflectable nozzle in its adjusted position relative to the motor. (3.) A nozzle for hydraulic motors connected to a main line water-supply pipe by a deflectable joint and being provided with means for controlling the deflection of the nozzle, with associated hydraulically actuated means for holding the nozzle in its adjusted position relative to the motor. (4.) A nozzle for hydraulic motors connected to a main line water-supply pipe by a deflectable joint and being provided with means for receiving the thrust of the nozzle to relieve the bearings of the strain thereof.

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

No. 20424.—7th December, 1905.—FRANK WILLIAM WISE, of 35, Willis Street, Wellington, New Zealand, Agent. Improved apparatus for washing clothes.

Claims.—(1.) In combination with a tank and lid, water-circulators adapted to fit the tank and each consisting of a base having a sloping top, a nozzle rising from the base towards the top of the tank, a sloping end to the base, holes in the sloping end, and means for preventing the flow of water outwardly through the said holes, substantially as and for the purposes set forth. (2.) In apparatus for the purpose set forth, a water circulator consisting of a base having a sloping top, a nozzle rising from the base towards the top of the tank, a sloping end to the base, holes in the sloping end, a flap adapted to close the said holes, and guards for retaining the flap in operative position, substantially as set forth. (3.) The combination and arrangement of parts, comprising the improved apparatus for washing clothes, substantially as and for the purposes set forth, and illustrated in the drawing.

(Specification, 2s. 3d.; drawing, 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 drawing has been inserted after the notice of each application. An order for a copy or copies should be accompanied by a post-office order or postal note for the cost of copying.

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

Extracts from the drawings accompanying the foregoing complete specifications appear at the end of this *Gazette*.

F. WALDEGRAVE,
Registrar.

Provisional Specifications accepted.

Patent Office,
Wellington, 10th January, 1906.

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

- No. 20005.—A. S. Ford, liquid-ejector.
- No. 20142.—W. Dempsey, flax stripper.
- No. 20195.—O. T. Madeley, metal address-label.
- No. 20231.—A. Nathan, milk food.
- No. 20245.—H. C. Thomsen, seed-thresher.
- No. 20323.—J. Bruce, spring catch.

- No. 20329.—T. Dugdale, rain-water spout-head and strainer.
 No. 20331.—E. W. H. Hutton, flax-dressing apparatus.
 No. 20366.—W. Stone, sash raiser and lock.
 No. 20385.—G. Leslie, preserving natural colours of timber.
 No. 20386.—E. Sable, animal trap.
 No. 20394.—J. H. Jones and W. Kane, gold-dredge.
 No. 20395.—A. M. Swhan, turnip-thinner.
 No. 20409.—L. H. Potton and E. C. Winstone, attaching models to dental articulators.
 No. 20397.—D. Caithness and J. P. Graham, gold-dredge anchor.
 No. 20400.—E. Wrigley, bar-shearing machine.
 No. 20401.—W. Costello, bag-stand.
 No. 20403.—S. Priest, jun., cooking-range.
 No. 20404.—J. D. Baldwin, hanging pictures.
 No. 20409.—R. E. Burke and M. Egan, fire-reel carriage-trailer with a cycle.
 No. 20410.—M. Saunders and G. Winter, bagging and stacking grain.
 No. 20421.—J. G. Slater, W. Junor, and T. H. Watson, extraction of gold and silver.
 No. 20423.—C. F. Lungley, manufacture of ammonia, &c.
 No. 20425.—F. A. Oddie, rotary crusher.
 No. 20427.—J. Strathern, making potatoes, &c., proof against blight.
 No. 20430.—L. Siegenberg, jun., incandescent burner.
 No. 20431.—G. Harvey, writing appliance for the blind.
 No. 20433.—R. D. Haworth, cardboard-box manufacture.
 No. 20434.—T. Higgin, cow-leg holder.
 No. 20435.—T. Taylor, non-refillable bottle.
 No. 20436.—H. P. Barry, linings for tube mills, &c.
 No. 20437.—D. Whitburn, game.
 No. 20439.—A. T. Craven, music displayer.
 No. 20440.—E. N. Grove, moving tram-rail joints and overhead wires.
 No. 20441.—R. J. Fry, animal trap.
 No. 20443.—J. L. Kirkbride, tram-car fender.
 No. 20445.—R. J. Terry, egg-tester.
 No. 20446.—H. Buckeridge, sticking attachment to reaper-and-binder.
 No. 20448.—A. R. Angus, running-gear of railway-car.
 No. 20449.—A. R. Angus, running-gear of railway-car.
 No. 20450.—United Shoe Machinery Company, lasting-machine. (W. A. Bond.)
 No. 20451.—United Shoe Machinery Company, sewing-machine. (W. C. Meyer.)
 No. 20452.—United Shoe Machinery Company, rough-rounding and channeling machine. (G. F. Wolfe.)
 No. 20453.—United Shoe Machinery Company, fastening inserting machine. (G. A. Ambler.)
 No. 20457.—T. S. Philpott, window.
 No. 20458.—A. B. Robertson and R. W. Bond, cow-bail.
 No. 20463.—C. P. Hanson, non-refillable bottle.
 No. 20468.—K. Matthews, treating flax.
 No. 20469.—A. Jack, production of gas.
 No. 20473.—C. F. Pulley, dressing timber for wharf-building.
 No. 20476.—J. H. A. McPhee, tobacco cutter and box.
 No. 20482.—V. R. Reeve, diverting first portion of rain-water on roof.
 No. 20485.—A. R. Angus, running-gear of railway-car.
 No. 20486.—F. E. A. Gordon, washing-fluid.
 No. 20488.—R. P. Park, sluice-box.
 No. 20502.—F. R. Dennison, variable speed gear.
 No. 20507.—K. Matthews, flax treatment.
 No. 20514.—United Xpedito Finishing Company, heel-finishing machine. (Tuttle.)
 No. 20518.—T. Harkins, shaping-machine for tinsmiths.

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.

Letters Patent sealed.

- LIST of Letters Patent sealed from the 14th December, 1905, to the 10th January, 1906, inclusive :—
 No. 18404.—A. A. Turner and J. J. Gleeson, separating dirt from liquids.
 No. 18422.—D. Kitchen, bridle-fastening.
 No. 18458.—J. Theobald, shaft-tug for harness.
 No. 18462.—F. J. Shelton, acetylene-generator.
 No. 18465.—A. G. Land, adjustable seat for vehicles.
 No. 18488.—H. J. Gardiner, bicycle attachment.
 No. 18572.—B. G. A. Harkness, water-pump.
 No. 18603.—J. Russell, chamfering and trusing heads of casks, &c.
 No. 18674.—F. de J. Clere, reversible window-sash.
 No. 18689.—S. W. Winslow, buffing-machines. (A. W. Rogers.)
 No. 18800.—J. W. and G. W. Ferguson, brick-making machine.
 No. 19047.—G. T. Macfarlane, shipping animals.

- No. 19253.—J. H. Jackson, jun., boot.
 No. 19280.—R. J. Scott, vapourisation of oil, &c.
 No. 19728.—H. J. B. Harding, numerical recording-machine.
 No. 19786.—L. R. Gillanders, hydraulic motor.
 No. 19865.—D. Corcoran, measuring liquids.
 No. 19866.—Aktiebolaget Separator, separating apparatus. (A. J. Ericsson.)
 No. 19867.—Aktiebolaget Separator, separating apparatus. (B. Ljungstrom.)
 No. 19868.—Aktiebolaget Separator, separating apparatus. (A. J. Ericsson.)
 No. 19882.—G. C. J. Richard, collapsible-gate, &c.
 No. 19909.—B. Locking, generating gases.
 No. 19913.—W. E. Clark, draught and dust excluder.
 No. 19914.—G. B. Johnson, metal-working machinery.
 No. 19955.—J. K. Blogg, culinary essence.
 No. 19988.—J. Macdougall and R. Southouse, manufacture of hollow-waers, &c.
 No. 20066.—J. Paull, automatic gate-opener.

Letters Patent on which Fees have been paid.

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

SECOND-TERM FEES.

- NO. 14227.—W. E. Hughes, concrete-mixer. (F. B. Gilbreth.) 19th December, 1905.
 No. 14336.—T. Summerton, jun., blind. 18th December, 1905.
 No. 14350.—R. H. Davenport, glazing-bar. (J. Watson.) 15th December, 1905.
 No. 14358.—Svenska Centrifug Aktiebolaget, churn. (C. S. Berghmark.) 18th December, 1905.
 No. 14366.—T. W. B. Muir and G. Moodie, playing-cards. 19th December, 1905.
 No. 14383.—H. Hodgson, tinning metal goods. 30th December, 1905.
 No. 14404.—The British Westinghouse Electric and Manufacturing Company, Limited, winding for electric machine. (W. T. L. Travers—B. G. Lamme.) 4th January, 1906.
 No. 14430.—The British Westinghouse Electric and Manufacturing Company, Limited, electric distribution. (W. T. L. Travers—J. S. Peck.) 4th January, 1906.
 No. 14473.—W. Riddell, butter-printer. 22nd December, 1905.
 No. 14518.—A. S. Elmore, separating minerals. 20th December, 1905.
 No. 14612.—The New Inverted Incandescent-gas Lamp Company, Limited, gas-burner. (Inverted Incandescent-gas Lamp Syndicate, Limited—W. W. Hare.) 14th December, 1905.

THIRD-TERM FEES.

- No. 11049.—A. M. Nicholas, filter for ores, &c. 10th January, 1906.
 No. 11112.—F. W. Selley and W. H. Nisbet, slack-adjuster for railways. 18th December, 1905.
 No. 11306.—Massey Harris Company, Limited, drill. (C. McLeod.) 6th January, 1906.

Subsequent Proprietors of Letters Patent registered.

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

- NO. 16416.—Société Anonyme Métallurgique "Procédés de Laval," of Brussels, Belgium. Distillation of zinc. [C. G. P. de Laval.] 7th January, 1906.
 No. 17118.—Société Anonyme Métallurgique "Procédés de Laval," of Brussels, Belgium. Treating materials by reflected heat. [C. G. P. de Laval.] 7th January, 1906.
 No. 17249.—John Moffat, of No. 5, Douglas Wallace Street, in the City of Wellington, in New Zealand, Carpenter, registered as licensee for the North Island and Provincial Districts of Marlborough and Nelson for the residue of the term of fourteen years and any further term. Shop-window frame. [J. Watson.] 21st December, 1905.
 No. 17613.—Edward William Esdaile, of No. 54, Hunter Street, Sydney, in the State of New South Wales, Scientific Instrument and Spectacle Maker. Mercury feeder for stamper battery. [N. P. Carver.] 21st December, 1905.
 No. 19083.—John Coles, of Christchurch, in New Zealand, Manager, and James Clegg, of Christchurch aforesaid, Manufacturer, registered as proprietors for the late Provincial District of Canterbury. Wire-mattress retainer. [N. Hill—F. Davis.] 21st December, 1905.
 No. 19363.—The Howcroft Company, Limited, a company duly registered and incorporated in the State of Queensland, having its registered office at 225, Elizabeth Street, in the City of Brisbane, in said State. Machine for making tubs, baths, &c. [W. J. Howcroft.] 8th January, 1906.

Request to amend Specification allowed.

THE request to amend specification No. 2733—J. Osborne, Well-driver (advertised in Supplement to *New Zealand Gazette*, No. 85, of the 21st September, 1905)—has been allowed.

Applications for Letters Patent abandoned.

LIST of applications, with which provisional specifications only have been filed, abandoned (*i.e.*, complete specifications not lodged), from the 14th December, 1905, to the 10th January, 1906, inclusive:—

- No. 18968.—C. A. Kidd, wheel.
- No. 19069.—A. F. Donoghue, match-striker.
- No. 19072.—T. F. J. Geertson, horse-collar attachment.
- No. 19073.—F. Clennell and F. W. Thorp, propeller.
- No. 19081.—T. Dugdale, rain-water head and strainer.
- No. 19082.—B. O. Nuttall, vote-recorder.
- No. 19085.—A. Robinson and J. C. Morgan, securing cover on wool-bale.
- No. 19087.—A. Anderson and W. G. Jamieson, self-locking points for overhead rails.
- No. 19088.—N. R. Gordon, projector machine.
- No. 19093.—R. O. Clark, coating tiles, &c.
- No. 19095.—W. Phillips, meat-brand.
- No. 19097.—D. Robertson, post-marking machine.
- No. 19098.—J. H. Waigh, mining-elevator.
- No. 19102.—J. T. N. Anderson, valve for sewage ventilator.
- No. 19105.—T. W. Patchett, sash-fastener.
- No. 19108.—A. Treadwell, rail-cleaner.
- No. 19110.—H. C. Henderson, water-tube boiler.
- No. 19115.—D. Kitchen, horse-muzzle.
- No. 19116.—R. Law, anti-rattler for windows.
- No. 19120.—D. McKinnon, turnip-thinner and potato-digger.
- No. 19123.—A. J. Miller, meat-extract.
- No. 19133.—C. Mills, window-bracket.
- No. 19135.—E. Hayes, wind-motor.
- No. 19136.—G. S. Budge, race-starter.
- No. 19137.—F. W. Gardiner, vamping attachment.
- No. 19142.—J. Thomson, tire.
- No. 19143.—R. H. Lambeth, wire-strainer.
- No. 19144.—J. W. Rogers, boiler-cover.
- No. 19146.—R. R. Douglas, pin.
- No. 19147.—R. H. Crook, tidal motor.
- No. 19151.—F. C. Ablett, perambulator-brake.
- No. 19152.—W. E. S. Mackay, G. E. Howard, and J. A. Turner, lift-door.
- No. 19157.—E. D. Richards, rail-joint. (J. A. Belk.)
- No. 19158.—T. Loftus, wheel-lock. (C. F. Loftus.)
- No. 19159.—R. S. Badger, invoice-form.
- No. 19160.—T. M. Morrissey, bicycle adapter for railway.
- No. 19161.—G. T. Pritchard, railway-signal.
- No. 19162.—W. Whyte, trolley-head protector.
- No. 19166.—C. Davy, sleeper and mould.
- No. 19169.—H. Harding, wire-strainer.
- No. 19171.—G. Clements, D. Urquhart, M. Evans, C. Sloper, and T. M. Corlet, tire.
- No. 19172.—F. C. Ablett and R. S. Elston, tire.
- No. 19175.—J. B. Allen, cultivator.
- No. 19184.—J. L. Wilson, chaff-cutter grinder attachment.
- No. 19186.—E. McNair, feeding infants from bottles.
- No. 19191.—J. G. Buchanan, totalisator-record displayer.

Applications for Letters Patent void.

APPPLICATIONS for Letters Patent void, owing to the non-acceptance of complete specifications, from the 14th December, 1905, to the 10th January, 1906, inclusive:—

- No. 18473.—R. Paladini, flushing-pan.
- No. 18482.—A. E. Williams, luggage label and case.

Applications for Letters Patent lapsed.

LIST of applications lapsed, owing to Letters Patent not being sealed, from the 14th December, 1905, to the 10th January, 1906, inclusive:—

- No. 18061.—D. Dunn, wheel-jack.
- No. 18086.—J. Paterson and E. Johns, Nightsoil and refuse pan.
- No. 18094.—W. Gray, wrench.
- No. 18108.—B. J. de la Haye, bicycle-stand.
- No. 18115.—J. Petrie, window-sash lock.
- No. 18116.—W. Gray, cycle handle-bar.
- No. 18117.—W. Danks, cement for pipe-joints.
- No. 18120.—V. Perniskie, nib-ejector.
- No. 18121.—D. Clark, forcing-pen.
- Fo. 18138.—C. J. Johanson, grubber.
- No. 18141.—G. H. Colegrove and H. Corrick, hat.

Letters Patent void.

LETTERS Patent void through non-payment of renewal fees, and through expiry of term of fourteen years, from the 14th December, 1905, to the 10th January, 1906:—

THROUGH NON-PAYMENT OF SECOND-TERM FEES.

- No. 14005.—J. Dunbar, disc-ridger.
- No. 14008.—B. T. R. Greensill, desk or music-stand.
- No. 14012.—W. Frazer, skein-unwinder.
- No. 14015.—A. C. Aucher, gas-burner.
- No. 14016.—T. E. O'Brien, drill.
- No. 14019.—H. Abbott, steam-generator.
- No. 14023.—Dow Composing Machine Company, type-setter and justifier. (A. Dow.)
- No. 14037.—R. M. and H. J. Cooper and J. Storie, window-support.
- No. 14038.—L. N. Dyhrberg and G. K. Askin, belt or braces.
- No. 14039.—The Kenfrew Crusher Company, Limited, roller-mill. (J. C. Wegerif.)
- No. 14040.—T. Darlington, ventilating.
- No. 14041.—Universal Seal and Stopper Company, bottle-seal. (E. D. Schmitt.)
- No. 14042.—E. Berg, whaling-lance.
- No. 14043.—W. C. Bray, book cover and heel.
- No. 14046.—C. Rogers and A. M. Oswald, zinc-extraction.
- No. 14049.—C. Marshall, anti-vibrator for gas-burners.
- No. 14052.—D. J. Kelleher, fire detector and alarm.
- No. 14054.—Cox and Co., Incorporated, box-covering machine. (H. B. Blackinton.)
- No. 14055.—M. Ruthenburg, ore-treatment.
- No. 14061.—J. Ferguson, J. Mitchell, H. King, and J. W. Henderson, gold-saving.
- No. 14063.—H. T. Smith and A. J. Tarrant, station-indicator.
- No. 14070.—O. Wall and R. C. Hughes, pen.
- No. 14073.—A. Brake, drawing off liquids.
- No. 14076.—J. C. McGeorge, dredge attachment.
- No. 14077.—G. T. Shilton, mail-fastener.
- No. 14079.—J. C. Freeth and P. J. H. Munro, fire-escape.
- No. 14081.—A. McFarlane and W. Cook, water-race cleaner.
- No. 14082.—M. A. G. Himalaya, apparatus for utilising sun's rays.
- No. 14083.—E. Scharrer, beam for loading, &c.
- No. 14084.—W. J. Robinson and H. Higgins, grain-dryer.
- No. 14085.—J. W. Blakey, gas-burner.
- No. 14086.—M. L. Lion and T. Cowburn, boots, &c.
- No. 14087.—J. Fletcher, carbonator.
- No. 14090.—G. G. Smith, acetylene generator.
- No. 14092.—W. Humble, poison-distributor. (J. Ferrier.)
- No. 14094.—J. K. Chapman, bending together matter into books.
- No. 14097.—J. Gell, telegraph-tape apparatus.
- No. 14103.—J. Rose, race-starter.
- No. 14106.—G. C. Palmer, bandolier.
- No. 14110.—G. Andrew, cash register.
- No. 14111.—J. P. Kernbaum, mail-bag lock.
- No. 14113.—A. Scheidel, extraction of metals.
- No. 14115.—H. E. Gresham, signalling on trains.
- No. 14116.—R. D. L. Duffus, rat-trap.

THROUGH NON-PAYMENT OF THIRD-TERM FEES.

- No. 10983.—D. R. S. Galbraith, butter-making.
- No. 11008.—J. Leather, ventilating appliance.
- No. 11011.—T. H. Kelly, G. W. Bell, and R. N. Kirk, explosive. (A. Fraser.)
- No. 11013.—The Petolite Fuel Syndicate, Limited, fuel. (W. E. Hughes—J. W. Leadbeater.)
- No. 11018.—Safety Explosives, Limited, explosive. (H. Boyd.)

THROUGH EXPIRY OF TERM.

- No. 5357.—A. Shiels, temperature regulator.
- No. 5370.—A. B. Ibbotson, nails for railroad ties.

Designs registered.

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

- No. 269.—The Sterling Electro-plating Company of 34, Lower Cuba Street, Wellington, in the Colony of New Zealand. Class 2. 13th December, 1905.
- No. 270.—The Sterling Electro-plating Company, of 34, Lower Cuba Street, Wellington, in the Colony of New Zealand. Class 2. 19th December, 1905.
- Nos. 271, 272, 273.—Lonsdale Bros. and Co., of Christchurch, in the Colony of New Zealand, Jewellers and Watchmakers. Class 2. 21st December, 1905.
- No. 274.—Lonsdale Bros. and Co., of Christchurch, in the Colony of New Zealand, Watchmakers and Jewellers. Class 2. 22nd December, 1905.

No. 275.—William George Hancox, of Wellington, in the Colony of New Zealand. Class 1. 22nd December, 1905.

No. 276.—Alfred Augustus Grace, of Nelson, in the Colony of New Zealand. Class 5. 15th December, 1905.

No. of application : 5430.

Date : 3rd August, 1905.

Applications for Registration of Trade Marks.

Patent Office,
Wellington, 10th January, 1906.

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 : 5179.

Date : 23rd February, 1905.

TRADE MARK.

The word

“PRESERVALINE.”

The applicants claim that the said trade mark has been in use by them in respect of the articles mentioned before the 1st January, 1890.

NAME.

THE PRESERVALINE MANUFACTURING COMPANY, of 41 to 45, Warren Street, New York, State of New York, United States of America, Manufacturers.

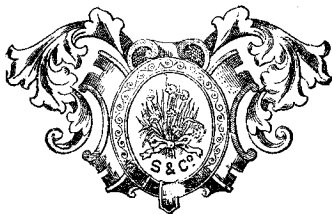
No. of class : 2.

Description of goods: Preservatives, including antiseptics, bactericides, anti-ferments, insecticides, anti-zymotics, disinfectants, and the like.

No. of application : 5419.

Date : 25th July, 1905.

TRADE MARK.



LONDON CLUB.

NAME.

STRAUSS AND Co., of 39, Seething Lane, London, England, Wine and Spirit Merchants.

No. of class : 43.

Description of goods: All wines and spirits.

TRADE MARK.



The essential particulars of the trade mark are as follow : The distinctive label ; and applicants disclaim any right to the exclusive use of the added matter, except in so far as it consists of their name.

NAME.

J. H. HENKES' DISTILLERY (a company incorporated under the laws of Holland), of 95, Voorhaven, Rotterdam, Holland, Distillers.

No. of class : 43.

Description of goods: Gin.

No. of application : 5456.

Date : 14th August, 1905.

TRADE MARK.

The word

“PRESERVALINE.”

The applicants claim that the said trade mark has been in use by them in respect of the articles mentioned before the 1st January, 1890.

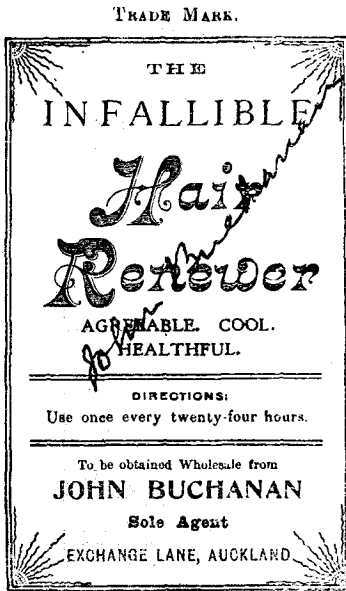
NAME.

THE PRESERVALINE MANUFACTURING COMPANY, of 41 to 45, Nassau Street, New York, State of New York, United States of America, Manufacturers.

No. of class : 42.

Description of goods: Preservatives.

No. of application : 5579.
Date : 17th October, 1905.



The essential particular of this trade mark is the signature on the label; and applicant disclaims any right to the exclusive use of the added matter, except his name and address.

NAME.

JOHN BUCHANAN, of Exchange Lane, Auckland, in the Colony of New Zealand, Merchant.

No. of class : 48.
Description of goods : Hair renewer.

No. of application : 5643.
Date : 14th November, 1905.



The essential particulars of this trade mark are the combination of devices, the circular border, with the internal octagon; and applicants disclaim any right to the exclusive use of the added matter, except as regards their name.

NAME.

JAMES GARR AND SONS, of Clarence Mills, Clarence Street, Manchester, England, Manufacturers.

No. of class : 28.
Description of goods : Ladder tapes for venetian blinds.

NOTE.—This mark has been regazetted on account of the word "Patent" and "By Royal Letters Patent" being included in the label in former notice.

No. of application : 5652.
Date : 25th November, 1905.



NAME.

THE McLEOD PATENT FIRE BRAND COMPANY, LIMITED (a company duly incorporated under the provisions of an Act of the General Assembly of New Zealand entitled "The Companies Act, 1903"), having its registered office in Hunter Street, in the City of Wellington, in the Colony of New Zealand.

No. of class : 13.
Description of goods : Branding appliances.

No. of application : 5663.
Date : 6th December, 1905.

The word

TRADE MARK.

WALDORF.

NAME.

ALBERT LEVY, trading as "Ardath Tobacco Company," State Express Works, 43, 45, 47, 49, 51, Worship Street, London, E.C., England, Tobacco-manufacturer.

No. of class : 45.
Description of goods : Manufactured tobacco.

No. of application : 5684.
Date : 18th December, 1905.

The words

TRADE MARK.

"SOUTHERN CROSS."

NAME.

WRIGHT, STEPHENSON, AND Co., of Invercargill, in the Colony of New Zealand.

No. of class : 42.
Description of goods : Tea and coffee.

No. of application : 5688.
Date : 14th December, 1905.

TRADE MARK.



The essential particular of the trade mark is the distinctive device; and applicants disclaim any right to the exclusive use of the added matter, except their name and address.

NAME.

SIMMONS HARDWARE COMPANY, a corporation of the State of Missouri, United States of America, and located at Ninth and Spruce Streets, St. Louis, State of Missouri, United States of America.

No. of class : 13.

Description of goods: Steels, mattocks, grub-hoes, picks, shovels, spades, box-scrapers (without cutting-edges), awls, augers (without cutting-edges), boring-bits (without cutting-edges), punches, pliers (without cutting-edges), pincers (without cutting-edges), nippers (without cutting-edges), hoes (other than grub), wedges, froes, garden trowels, post-hole diggers, plasterers' trowels, and bricklayers' trowels.

No. of application : 5689.
Date : 18th December, 1905.

TRADE MARK.

The word

STEEERO.

NAME.

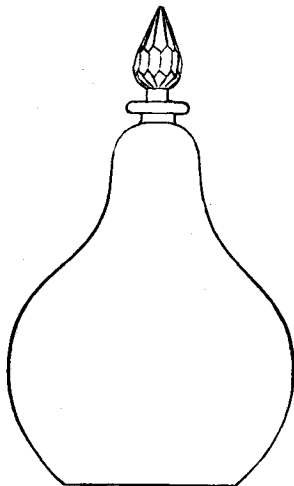
JOHN STEER, of Carlyle Street, Napier, in the Colony of New Zealand, Laundryman.

No. of class : 47.

Description of goods: A liquid detergent; also soap, starch, and blue.

No. of application : 5690.
Date : 20th December, 1905.

TRADE MARK.



HEALATTA

NAME.

LEVER BROS., LIMITED, of Balmain, near Sydney, State of New South Wales, Manufacturers.

No. of class : 47.

Description of goods: Common soap, soap-powders, candles, matches, starch, blue, washing-soda, detergents, and oil for illuminating, heating, or lubricating purposes.

No. of application : 5691.

Date : 20th December, 1905.

TRADE MARK.

(The mark as shown in preceding notice, No. 5690.)

NAME.

LEVER BROS., LIMITED, of Balmain, near Sydney, State of New South Wales, Manufacturers.

No. of class : 48.

Description of goods: Perfumed soap, perfumery, and glycerine for toilet purposes.

No. of application : 5692.

Date : 21st December, 1905.

TRADE MARK.



The above trade mark consists of or contains the following essential particulars: (1) The word "Brasso" and (2) the distinctive label; and any right to the exclusive use of the added matter is disclaimed.

NAME.

RECKITT AND SONS, LIMITED, of 423, Kent Street, Sydney, in the State of New South Wales and Commonwealth of Australia, and of Hull, in Yorkshire, England, Starch, Blue, and Blacklead Manufacturers.

No. of class : 50.

Description of goods: Polishing pastes and powder, and metal-polish of all kinds.

No. of application: 5698.
Date: 3rd January, 1906.

TRADE MARK.



NAME.

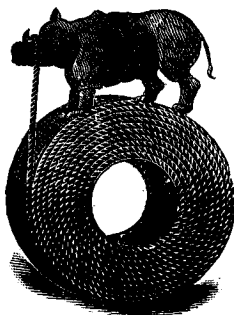
GREY AND MENZIES, LIMITED, of the City of Auckland, in the Provincial District of Auckland, in the Colony of New Zealand, Aerated-waters and cordial manufacturers.

No. of class: 44.

Description of goods: Mineral and aerated waters (natural and artificial), including ginger-beer and hop-beer.

No. of application: 5699.
Date: 3rd January, 1906.

TRADE MARK.



NAME.

GEORGE CRADDOCK AND Co., of Denby Dale Road, Wakefield, in the County of York, England, Steel, Wire, and Wire-rope Manufacturers.

No. of class: 5.

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

No. of application: 5700.
Date: 3rd January, 1906.

TRADE MARK.

(The mark as shown in preceding notice, No. 5699.)

NAME.

GEORGE CRADDOCK AND Co., of Denby Dale Road, Wakefield, in the County of York, England, Steel, Wire, and Wire-rope Manufacturers.

No. of class: 13.

Description of goods: Wire-ropes and chains.

No. of application: 5702.
Date: 4th January, 1906.

TRADE MARK.

The word

FORGET-ME-NOT

NAME.

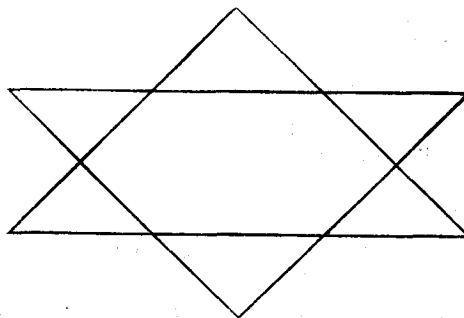
LEVER BROS., LIMITED, of Balmain, near Sydney, State of New South Wales, Manufacturers.

No. of class: 47.

Description of goods: Common soap, soap-powders, candles, matches, starch, blue, washing-soda, detergents, and oil for illuminating, heating, or lubricating purposes.

No. of application: 5703.
Date: 4th January, 1906.

TRADE MARK.



NAME.

LEVER BROS., LIMITED, of Balmain, near Sydney, State of New South Wales, Manufacturers.

No. of class: 48.

Description of goods: Perfumed soap, perfumery, and glycerine for toilet purposes.

No. of application: 5704.
Date: 4th January, 1906.

TRADE MARK.

(The mark as shown in preceding notice, No. 5703.)

NAME.

LEVER BROS., LIMITED, of Balmain, near Sydney, State of New South Wales, Manufacturers.

No. of class: 47.

Description of goods: Common soap, soap-powders, candles, matches, starch, blue, washing-soda, detergents, and oil for illuminating, heating, or lubricating purposes.

No. of application: 5705.
Date: 4th January, 1906.

TRADE MARK.

The word

FORGET-ME-NOT.

NAME.

LEVER BROS., LIMITED, of Balmain, near Sydney, State of New South Wales, Manufacturers.

No. of class: 48.

Description of goods: Perfumed soap, perfumery, and glycerine for toilet purposes.

F. WALDEGRAVE,
Registrar.

Trade Marks registered.

LIST of Trade Marks registered from the 14th December, 1905, to the 10th January, 1906, inclusive:—
No. 4346; 5304.—Bryant and May, Limited; Class 47. (*Gazette* No. 88, of the 5th October, 1905.)
No. 4347; 5527.—Marriner and Co.; Class 39. (*Gazette* No. 88, of the 5th October, 1905.)
No. 4348; 5552.—Sargood, Son, and Ewen; Class 36. (*Gazette* No. 88, of the 5th October, 1905.)
No. 4349; 5553.—Sargood, Son, and Ewen; Class 36. (*Gazette* No. 88, of the 5th October, 1905.)
No. 4350; 5554.—Sargood, Son, and Ewen; Class 36. (*Gazette* No. 88, of the 5th October, 1905.)
No. 4351; 5348.—T. G. Mason; Class 3. (*Gazette* No. 71, of the 27th July, 1905.)
No. 4352; 5349.—T. G. Mason; Class 48. (*Gazette* No. 71, of the 27th July, 1905.)
No. 4353; 5438.—Keeps, Limited; Class 42. (*Gazette* No. 82, of the 7th September, 1905.)
No. 4354; 5569.—H. H. Ekins; Class 50. (*Gazette* No. 91, of the 19th October, 1905.)
No. 4355; 5528.—Gardiner and Hardie; Class 42. (*Gazette* No. 88, of the 5th October, 1905.)
No. 4356; 5265.—P. Bock; Class 3. (*Gazette* No. 42, of the 4th May, 1905.)
No. 4357; 5266.—P. Bock; Class 47. (*Gazette* No. 42, of the 4th May, 1905.)
No. 4358; 5273.—P. Bock; Class 2. (*Gazette* No. 78, of the 24th August, 1905.)
No. 4359; 5274.—P. Bock; Class 50. (*Gazette* No. 78, of the 24th August, 1905.)
No. 4360; 5540.—The Welsbach Light Company of Australasia, Limited; Class 13. (*Gazette* No. 91, of the 19th October, 1905.)
No. 4361; 5541.—The Welsbach Light Company of Australasia, Limited; Class 15. (*Gazette* No. 91, of the 19th October, 1905.)
No. 4362; 5542.—The Welsbach Light Company of Australasia, Limited; Class 18. (*Gazette* No. 91, of the 19th October, 1905.)
No. 4363; 5564.—The Palmerston North Mild Cure Bacon Company; Class 42. (*Gazette* No. 91, of the 19th October, 1905.)
No. 4364; 5069.—A. Durie and Co.; Class 42. (*Gazette* No. 102, of the 22nd December, 1904.)
No. 4365; 5150.—J. Hole and Co.; Class 43. (*Gazette* No. 75, of the 10th August, 1905.)
No. 4366; 5151.—J. Hole and Co.; Class 43. (*Gazette* No. 75, of the 10th August, 1905.)
No. 4367; 5494.—Keystone Lubricating Company; Class 47. (*Gazette* No. 85, of the 21st September, 1905.)
No. 4368; 5555.—T. R. Cadman and Sons; Class 12. (*Gazette* No. 91, of the 19th October, 1905.)

Subsequent Proprietor of Trade Mark registered.

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

NO. 4608/3925.—De Beauvoir de Lisle, of Waimata Valley, Gisborne, New Zealand, Sheep Farmer; Edwin Valentine Luttrell, of Gisborne aforesaid, Veterinary Surgeon; and Frederick Irving de Lisle, of Napier, New Zealand, District Health Officer. [De B. de Lisle and E. V. Luttrell.] 8th January, 1906.

Trade Mark Renewal Fees paid.

FEES paid for the renewal of the undermentioned trade marks:—

For fourteen years from the dates first mentioned.
No. 387/308.—6th January, 1906.—The Liverpool Patent Soap Company, Limited, of Liverpool, England. 14th December, 1905.
Nos. 389/512 and 392/514.—13th January, 1906.—American Tobacco Company of New Zealand, Limited, of Auckland, N.Z. 20th December, 1905.
No. 396/541.—19th January, 1906.—Irvine and Stevenson, of Dunedin, N.Z. 8th January, 1906.
No. 398/304.—25th January, 1906.—McGavin and Co., of Dunedin, N.Z. 23rd December, 1905.
No. 415/323.—5th March, 1906.—The Singer Manufacturing Company, of New York, U.S.A. 8th January, 1906.
No. 423/312.—10th March, 1906.—Philips and Pike, of Wellington, N.Z. 13th December, 1905.
No. 427/338.—16th March, 1906.—Anglo-Swiss Condensed Milk Company, of Cham, Switzerland, &c. 28th December, 1905.
No. 428/333.—18th March, 1906.—W. and A. Gilbey, of London, England. 28th December, 1905.
No. 435/370.—24th March, 1906.—C. A. Rickards, Limited, of Manchester, England. 4th January, 1906.
No. 463/344.—12th May, 1906.—Offley Forrester, and Co., of London, England. 4th January, 1906.
No. 537/539.—26th August, 1906.—Salutaris Water Company, of London, England. 6th January, 1906.

Trade Marks removed from the Register.

TRADe Marks removed from the Register, owing to the non-payment of the renewal fees, from the 14th December, 1905, to the 9th January, 1906, inclusive:—
Nos. 316/340 and 317/341.—14th September, 1891.—J. S. Kirk and Co., of Chicago, U.S.A. Class 48.
Nos. 318/255 and 319/320.—14th September, 1891.—A. H. Motley and Co., of Reidsville, U.S.A. Class 45.
Nos. 320/388 and 321/389.—18th September, 1891.—G. Preller and Co., of Bordeaux, France. Classes 42 and 43.
No. 322/270.—19th September, 1891.—Perken, Son, and Rayment, of London, England. Class 8.
No. 326/256.—17th September, 1891.—W. Hong Kew, of Wellington, N.Z. Class 42.
No. 333/440.—5th October, 1891.—F. Curtis, of Dunedin, N.Z. Class 50.
No. 334/271.—5th October, 1891.—The New Zealand Dairy Supply Company (Limited), of Dunedin, N.Z. Class 42.

Advertisements.

ADVERTISEMENTS are charged at the rate of 6d. per line for the first insertion, and 3d. per line for the second and any subsequent insertion.
All advertisements should be written on one side of the paper, and signatures, &c., should be written in a legible hand.
The number of insertions required must be written across the face of the advertisement.
Communications should be addressed to the Government Printer, Wellington, to whom post-office money-orders should be made payable. Cheques should be crossed "Public a/c," and exchange added.
Postage or duty stamps cannot be received in payment from any place at which postal notes or post-office orders are issued.
Prepayment may be demanded in any case. In order to prevent delay in publication a sufficient remittance should accompany every advertisement. Any surplus will be returned with receipted account.

By Authority: JOHN MACKAY, Government Printer, Wellington.

Department of Physics
5724 South University Avenue
Chicago, Illinois 60637

Dear Mr. [Name]:
I am pleased to inform you that your application for admission to the Ph.D. program in Physics has been accepted. You will be joining the department in the fall of 19[Year]. Your research interests in [Field] are highly valued, and we are confident that you will make significant contributions to the field under the supervision of Professor [Name].

The department offers a comprehensive program of study, including coursework in [Fields] and participation in seminars. You will be expected to complete your dissertation and defend it before a committee. Financial support is available through [Source] and a teaching assistantship. We look forward to your arrival and to working with you.

Sincerely,
[Name]
Department of Physics

ILLUSTRATIONS OF INVENTIONS.

[These illustrations refer to the complete specifications accepted, and advertised in this *Gazette*.]

FIG. 2

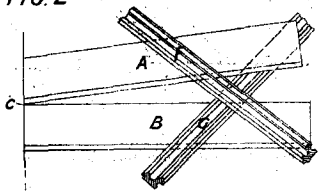


FIG. 3

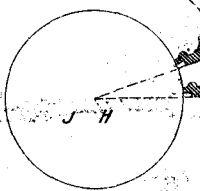
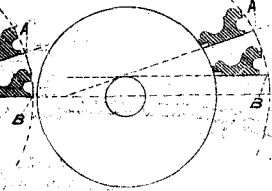
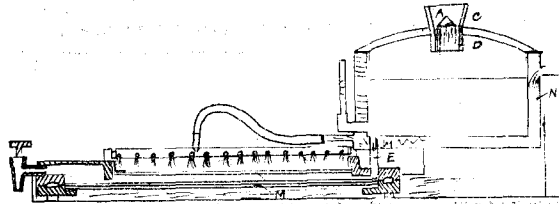


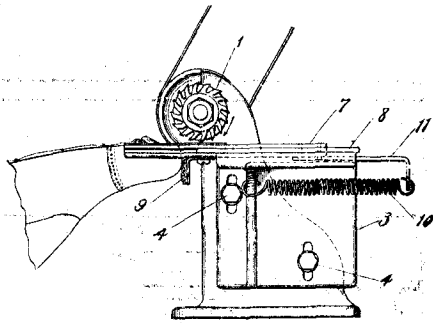
FIG. 4



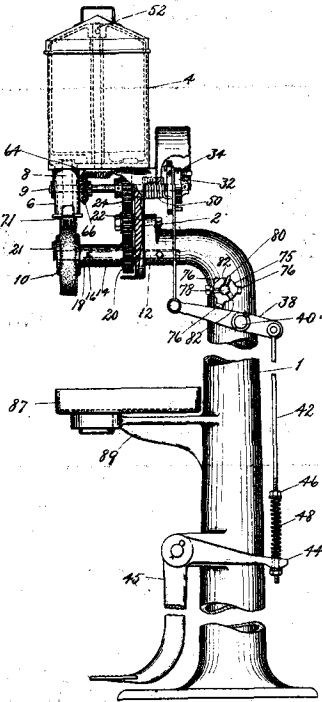
19031
Wales. Mitre-cutter.



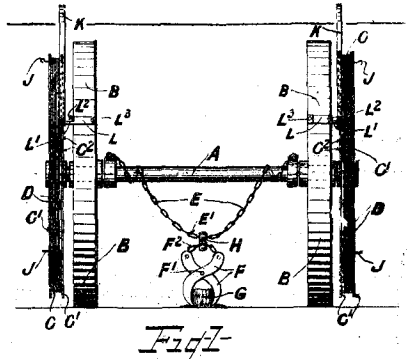
18928
Healy. Cream-cooler.



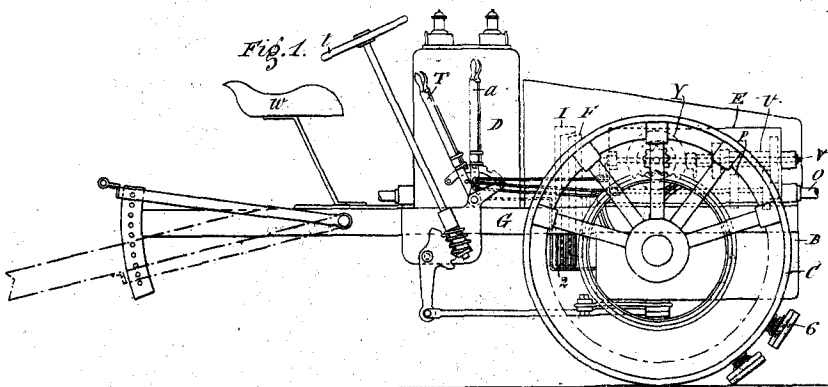
19051
United Shoe Machinery Company. Trimming-machine. (Ashton.)



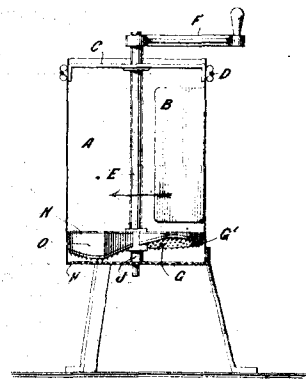
19050
United Shoe Machinery Company. Pasting-machine. (Ashton.)



19113
Schroeder. Stump-extractor.



19003
Saunderson. Motor.



19112
Kenyon and Titt. Bread-crumbler.

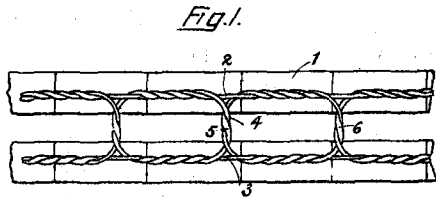


Fig. 1.

19131

Priest. Wall-tie.

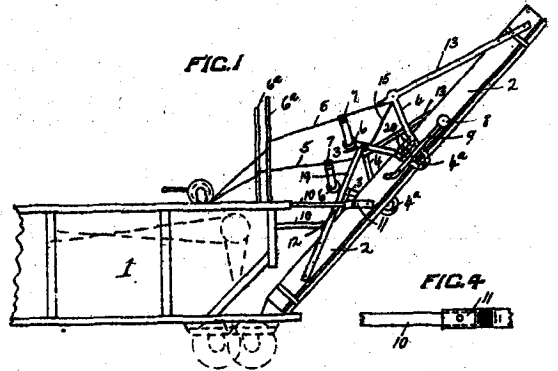


FIG. 1

FIG. 4

19286

Werner. Threshing-machine Elevator.

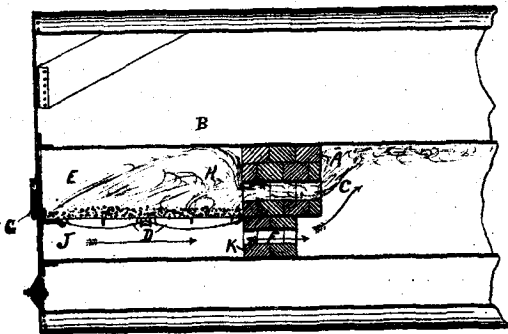


FIG. 2.

19291

Johnson and Carlaw. Smoke-consumer and Fuel-economiser.

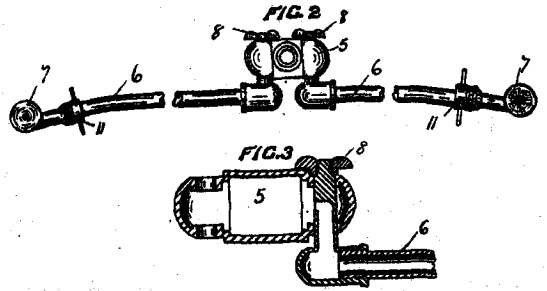


FIG. 2

FIG. 3

20367

Billens. Plant-sprayer.



FIG: 6



FIG: 5

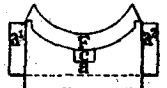


FIG: 4

20339

Wilson. Journal-bearings.

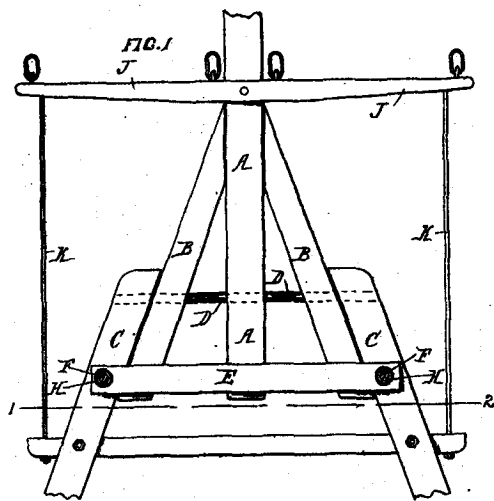
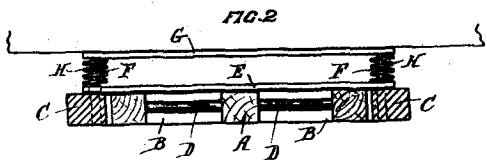


FIG. 1

FIG. 2



19145

Rawhiti. Wagon-pole.

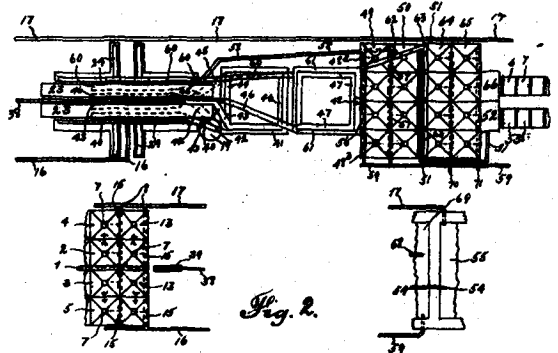
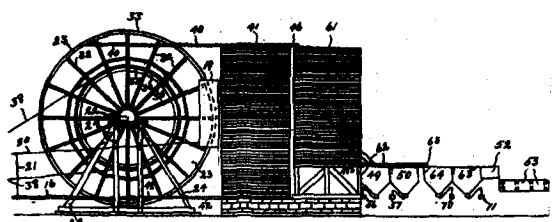
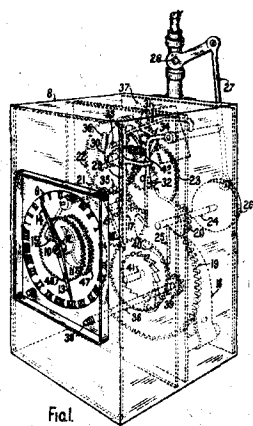


Fig. 2.

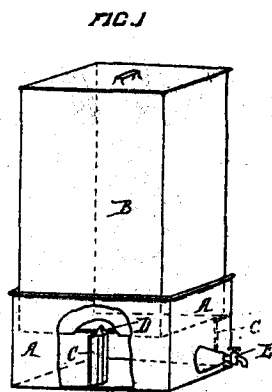


19375

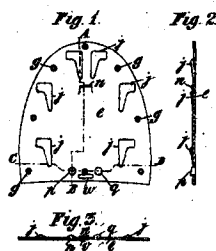
Gluyas. Slimes-treating Apparatus.



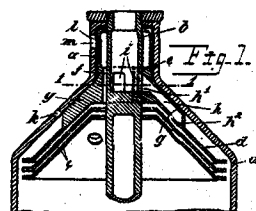
18644
Howlin. Operating-valves, &c.



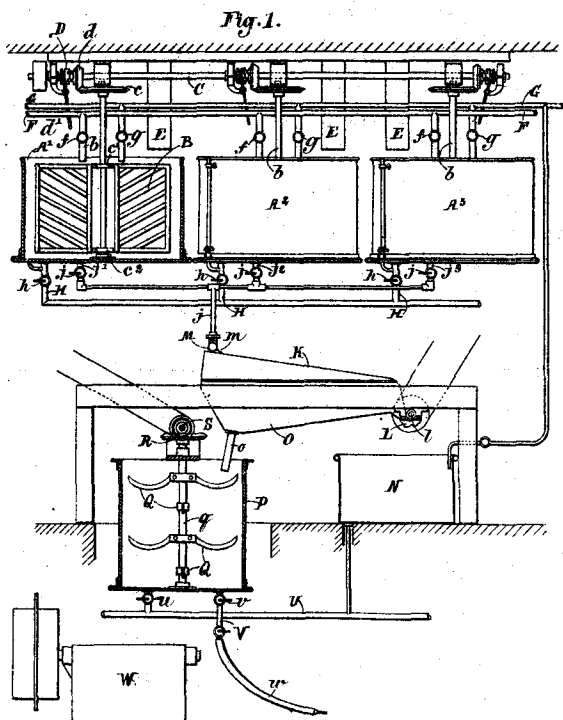
20055
Haughton. Tin-emptier.



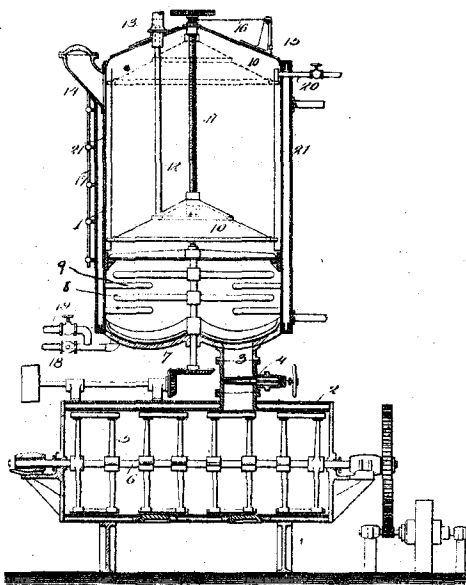
20292
Harrison and Southall. Heel Top-piece.



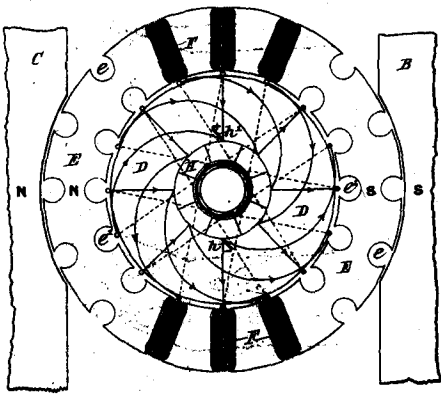
20311
Aktiebolaget Separator. Separator. (Ljungstrom.)



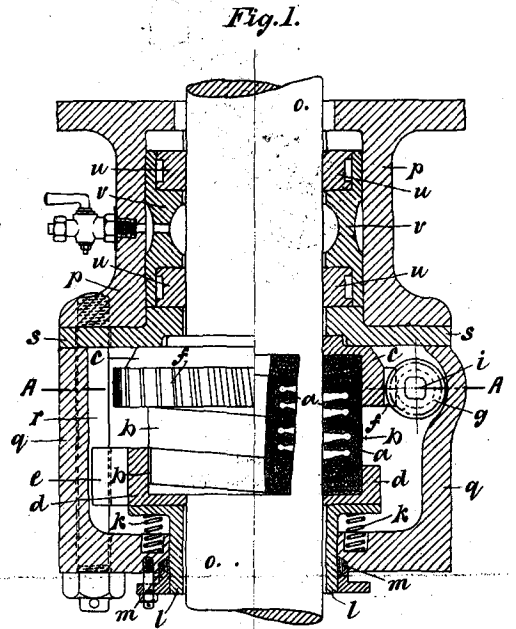
20312
Apostoloff. "Middlings" Separator.



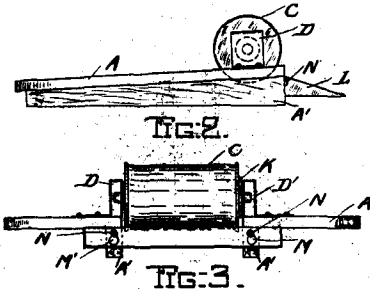
20334
Phillips. Rendering-apparatus. (Fallows and Cayford.)



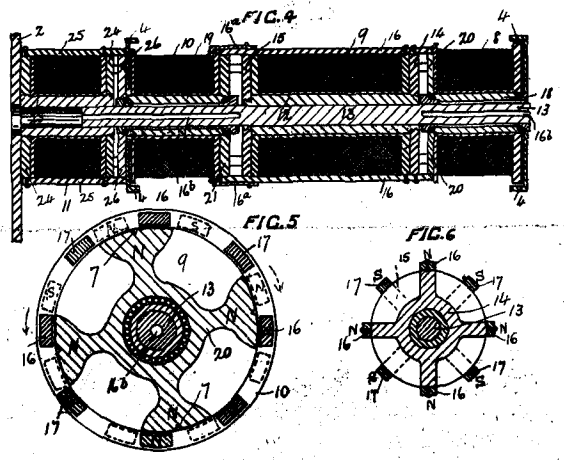
20351
Gibbons. Dynamo—Electric Generator. (Rabidge.)



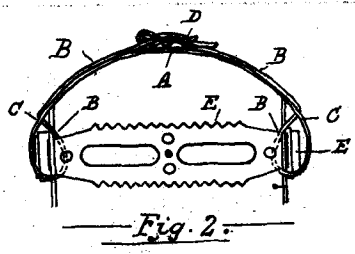
20353
A., G. W., and C. A. Beldam. Rod-packing.



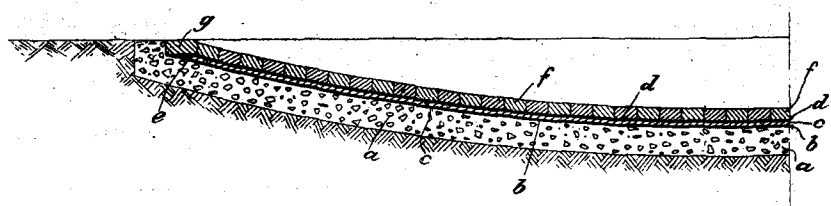
20306
McCrea. Lace-loom.



20386
Smith and Brown. Station-indicator.



20368
Loone. Toe-clip. (Kilwerth.)



20271
Hubbard, Hubbard, and Cross. Dew-reservoir.

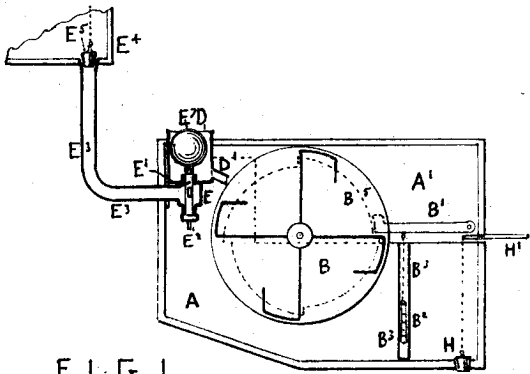


FIG. 1

20402

Anderson and Hunter. Liquid-measure.

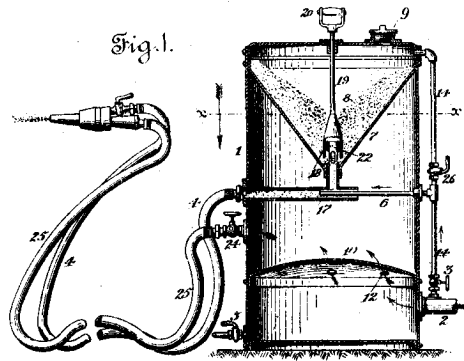


Fig. 1.

20412

Marine Construction Company. Sand-blast. (Murray.)

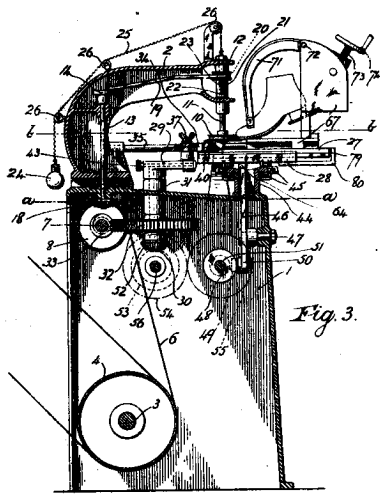


Fig. 3.

20413

Harrington and Speirs. Boot-machinery.

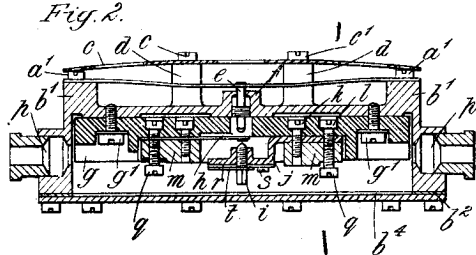


Fig. 2.

20414

McNeil. Fire-alarm.

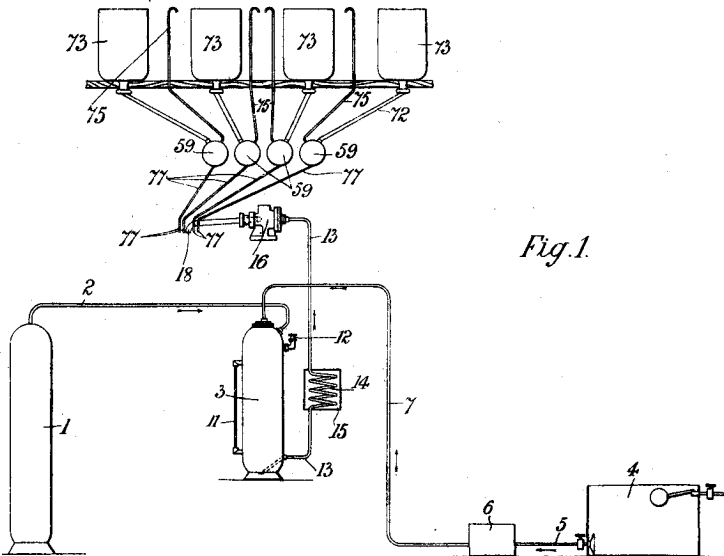
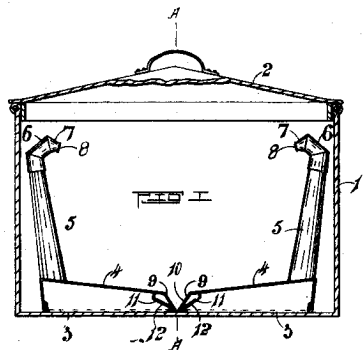


Fig. 1.

20349

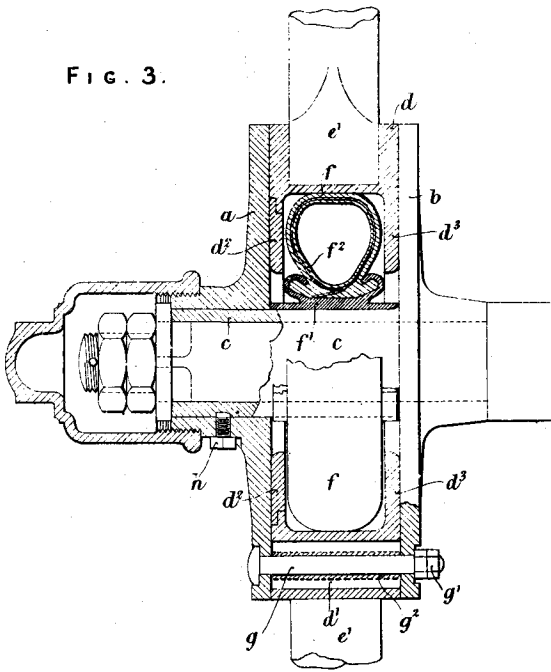
The Arcanum (Limited). Mineral Water Manufacture. (Moser.)



20424

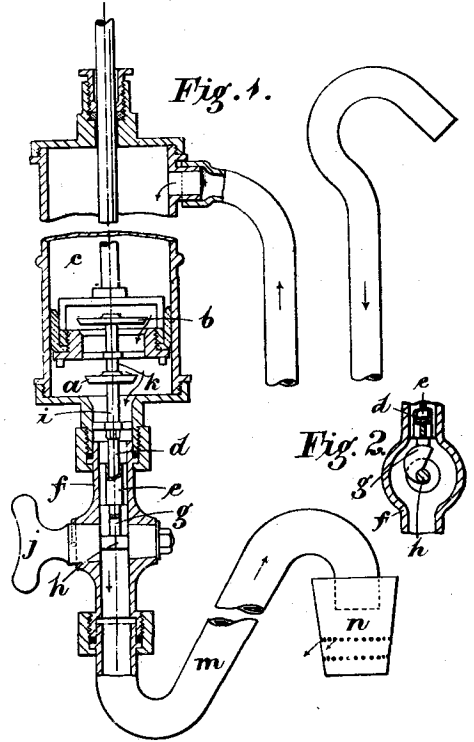
Wise. Clothes-washer.

FIG. 3.

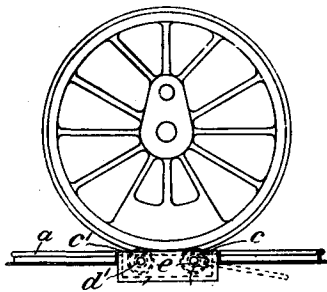


20344
Middleton. Vehicle wheel.

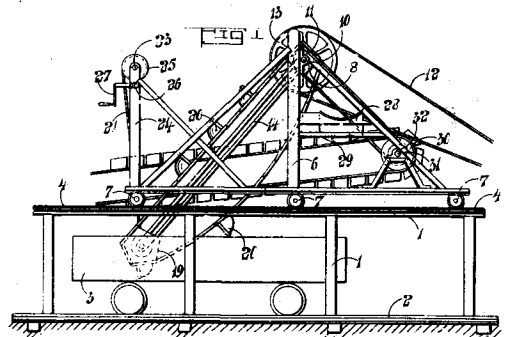
Fig. 1.



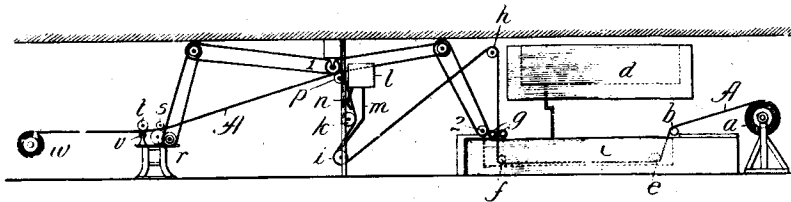
20346
Winch. Beer-pump.



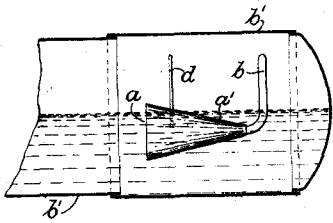
20348
Hugo. Valve-setter.



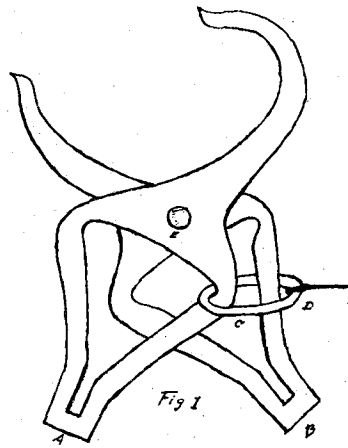
20383
Nicol. Coal-remover.



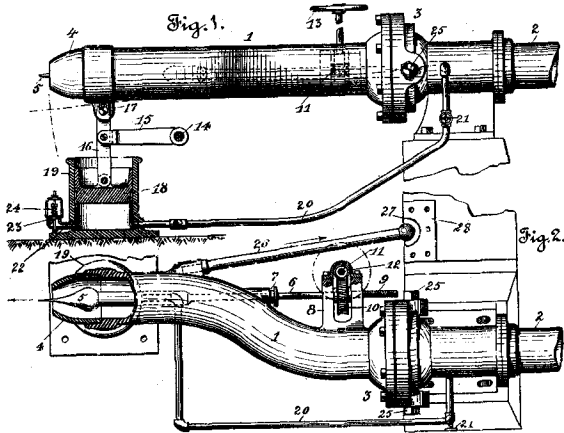
20350
Park. Waterproof Fabric. (Bond.)



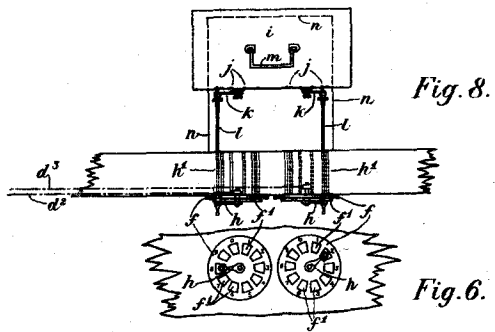
20415
Marlow and Constable. Boiler-skimmer.



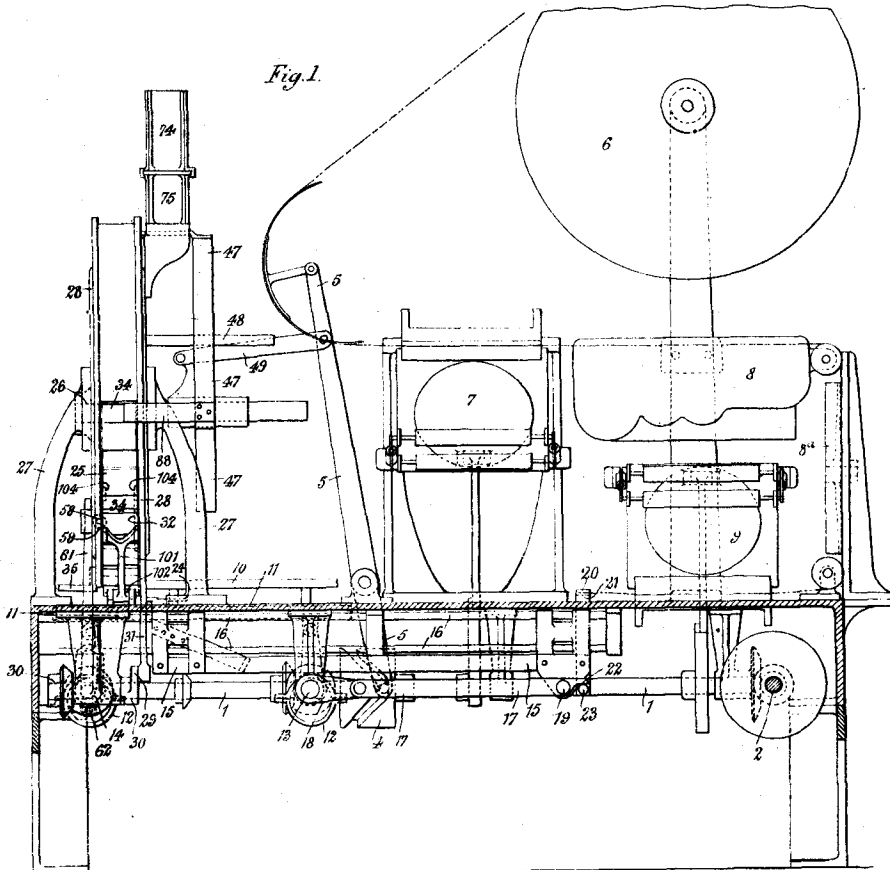
20215
Hayward and Hunter. Leg-rope Fastener.



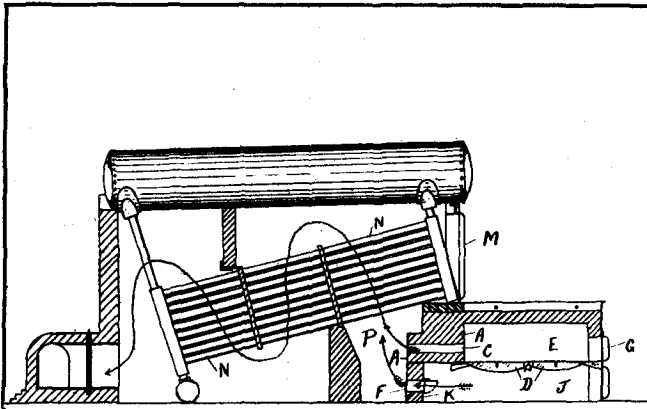
20422
Henry. Nozzle.



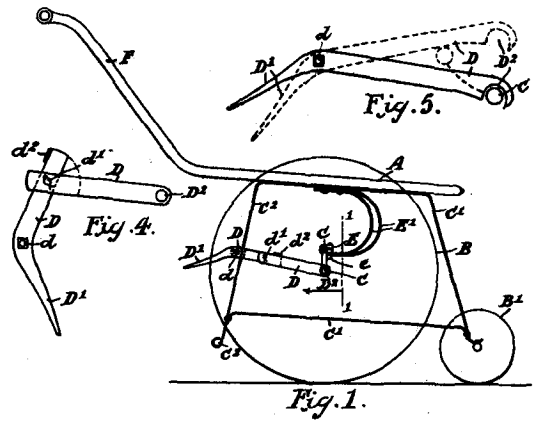
20418
Maaskant. Railway Truck-lock.



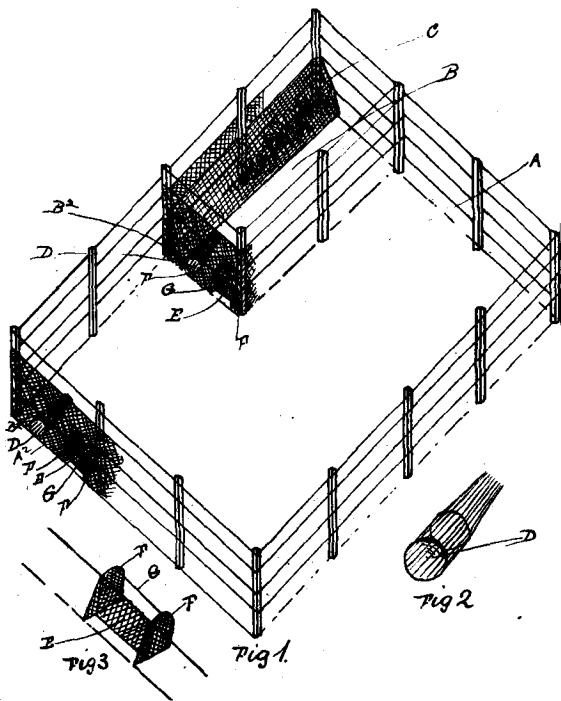
20419
The British American Machinery Company (Limited).
Box-machine. (Pollard and Behrmann.)



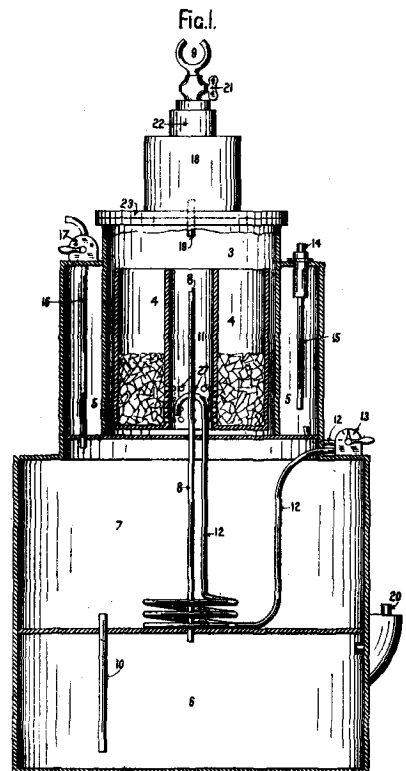
19573
Johnson and Carlaw. Smoke-consumer and Fuel-economiser.



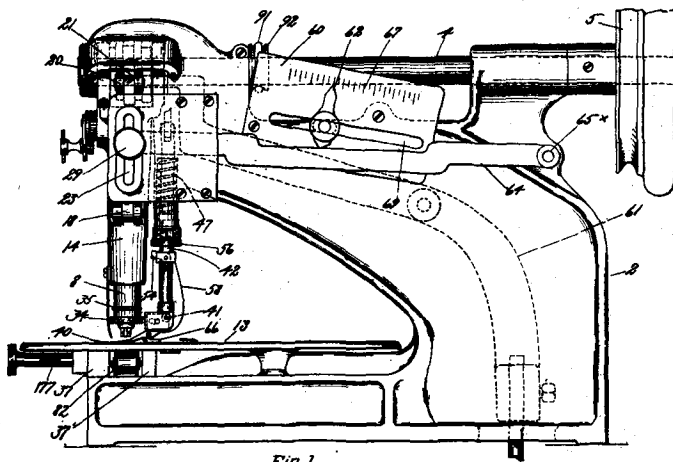
20228
McNeill. Go-cart.



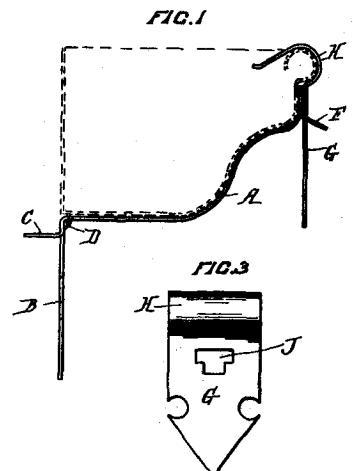
19627
Parker. Rabbit-extirminator.



20326
Hawkins. Lamp and Generator.



19271
United Shoe Machinery Company. Perforating-machine. (Flynt.)



19411
Clapham and Barlow. Spouting-bracket.