

RECENTLY PATENTED INVENTIONS.
Mechanical.

PLANING MACHINE CUTTER HEAD.—Victor V. Lawrence, Waterford, Vt. This head is made with end pieces having short integral journals projecting from their outer sides, parallel portions connecting the end pieces, which are separated by a clear space extending their whole length, and have flat inclined knife beds tangential to the axis of the cutter heads, leaving room for the clips, the invention also covering various other novel features.

MACHINE FOR CUTTING PATTERNS.—James W. Dearing, Brooklyn, N. Y. This machine provides means for manipulating a knife while in motion, and wherein the knife may be actuated by connection with any piece of mechanism having a vertical reciprocating motion, as the needle bar of a sewing machine, etc., being especially adapted for cutting scalloped edges and similar forms.

DYNAMO-ELECTRIC MACHINE.—Joseph W. Balet, New York City. This machine has an armature core grooved longitudinally with respect to the armature and transversely with respect to the field magnet, there being combined therewith one or more conductors wound in the grooves of the armature, so that the fluctuations of the current induced in the armature will not react upon the field magnet to modify the lines of force and cause the current to fluctuate.

DEVICE FOR TRANSMITTING POWER.—William G. Scott, Starkville, Miss. This is a pneumatic device which combines with a fixed air compressing cylinder and its piston a loose cylinder, a flexible tube connecting the latter with the fixed compressing cylinder, a spring-controlled piston in the loose cylinder with a hammer head on its front face, with other novel features, for transmitting power by blows or impact.

Agricultural.

PRUNING SHEARS.—James R. Gascoigne, Devenport, New Zealand. This invention covers a novel, irregular, and scalloped construction of the blades of the shears, whereby the twigs and branches are held from slipping, and the cutting edges can be readily sharpened, while the tool is intended to enable the operator to do more and better work.

Railway Appliances.

SNOW PLOW.—Eric M. Hesselbom, Rushford, Minn. This invention covers a novel construction and combination of parts in a plow designed to cut up the snow and discharge it in two streams to the side of the track, the plow being driven by a locomotive in its rear, and the invention being an improvement on a former patented invention of the same inventor.

Miscellaneous.

FOLDING BOOK CASE.—Phillip Kaffenberger, Springfield, Mo. This invention provides a permanent shelf upon which a permanent piece is supported at each end, such pieces forming portions of the sides and combining with those permanent parts, folding sides, and removable shells, giving rigidity to the entire structure, while the case may be folded into small bulk for transportation.

WATER PURIFIER.—Thomas H. McCulloch, Omaha, Neb. This device may also be used for other liquids, and comprises a series of settling tubes, the first tube having an inlet pipe at its lower end and an outlet at its upper end, pipes connecting the tubes, the upper end of each pipe communicating with the interior of a tube at its upper end and the lower side of the adjacent tube, with other novel features.

GAS CHECK.—Henry B. Eareckson, New York City. This device is for use on the waste pipes of wash basins and other water fixtures, to permit the discharge of the waste water while automatically preventing the back flow of sewer gas, the invention providing for the ready inspection and removal of the flap valve and its operating connections for cleaning or repairs, and to secure increased simplicity and efficiency.

KITCHEN CABINET.—Charles B. Rogers, St. Peter, Minn. Combined with a case having a cleat across its back and a moulding along the lower part of its rear edges are shelves hinged to the side of the case, and provided on their rear edges with rearwardly projecting strips adapted to engage alternately the cleat and the moulding, with various other novel features.

COFFEE POT.—Edward T. Newlin, Brooklyn, N. Y. This is one of the class of coffee pots in which an infusion is obtained by passing water through the ground coffee, held in a fabric strainer near the top of the coffee pot, the invention consisting mainly in a compressible ring held in the margin of the strainer, and in a removable support for the latter.

ASH SIFTER.—George W. Bown, Philadelphia, Pa. This invention covers a novel combination of parts in an ash sifter in which the parts may be detached, the casing being easily applicable to a barrel, so the ashes may be thus sifted, or the sieve may be locked to an ordinary ash pan, converting the two into a sifter.

FENCE MACHINE.—George W. Johnson, Dallas, Oregon. This machine is specially adapted for forming easily and rapidly fences of wires and pickets, the machine consisting principally of a tension device and a crossing device, and the invention covering various novel details and combinations of parts.

TENSION DEVICE.—Gabriel D. Coiner, Koimer's Store, Va. This is a device for use in making fences, and consists of a vertical standard supported rigidly on a broad base, a removable guard plate being rigidly attached to the face of the standard, and pins projecting from the standard, with other novel features, the device being moved from point to point as the fence making progresses.

HORSE DETACHER.—George T. Parker, Glasgow, Ky. In connection with a holdback hook for use on vehicle shafts, a dog and a presser acting on the dog are used to secure the latter in position in such manner that the ring connected with the breeching strap may be conveniently adjusted into the hook and may be released therefrom when the horse moves forward out of the shafts after the traces have been unfastened.

SLED BRAKE.—Clarence E. Holley, Fort Fairfield, Me. This brake is made with an end-wise or longitudinally movable plate or bar having connection with the longitudinally movable tongue, in combination with brakes having a whiffletree-like or cross bar connection with the longitudinally movable bar or plate, the brakes each consisting of an elbow lever pivoted at its angle to a runner of the sled.

WEATHER STRIP.—John E. Jones, New York City. This invention covers, as a new article of manufacture, a weather strip having a compressible and anti-friction surface of cork, composed of short blocks of cork applied to the door or window, with the ends of the grain at right angles to the edge of the window or door, the cork being held in a suitable casing in grooves.

WEATHER STRIP.—The same inventor has likewise obtained a further patent for a weather strip composed of a thin plate of spring metal set into the edge of the sash, so that its outer edge presses with a constant spring pressure upon the window frame, being designed to be used mainly on car and other windows to exclude air, dust, rain and snow.

FOLDING CONFESSORIAL.—James J. Dunn, Meadville, Pa. This device consists in a middle screen having a window or opening in its upper part, and outer screens hinged to the same vertical edge of the middle screen, being intended for use in Roman Catholic churches, where it can be readily set up in any part of a church, or readily folded up and removed out of the way.

AIR SHIP.—Herman A. J. Reickert, New York City. This air ship consists principally of a balloon supporting on its under side a closed basket, in which is located a motive power operating a suction wheel and propeller wheel, both located above the basket at its rear and mounted in supports connecting the basket with the balloon, the power also operating side and central wings, and the ship being designed to be under the control of the operator, to be steered in any direction.

WINDMILL.—George W. Haines, Adin, Cal. This invention provides means for regulating the windmill, whereby the wheel will be kept turning at a regular speed in all winds, high and low, and wherein the turn table will be constantly and automatically lubricated.

WIRE TIGHTENER.—Shapley P. R. Taylor and Stephen S. Clark, Denison, Texas. This is a simple tool for taking up the slack of wire in wire fences, and has a peculiar construction and arrangement of a twisting nipper, in which a bar having a forked end bent to form hooks is combined with a lever handle fulcrumed to the bar, and having its end extended between the hooks to form a discharging device for the wire.

SHOEING STAND.—John J. Halstead, Kesler's Cross Lanes, West Va. This is an apparatus designed to save the horseholder from the strain of supporting the foot of the animal, and also provides for more firmly and more steadily supporting the hoof, so that the shoe can be more quickly put on, while it has a convenient tool box.

RENDERING.—Frederick Winter, Allegheny, Pa. This invention covers a novel process for the manufacture of neutral stock from crude animal fats, by first reducing the fat to a pulp, then passing it on to a body of heated water, next subjecting it to a stream of heated water from above, whereby the melting is completed, and foreign matters washed out, then, after settling, drawing off the clear fat.

SIFTER.—George H. Fountain, Plainfield, N. J. This invention provides a sifter with a perforated or reticulated drum having an automatically closing door, with means whereby a chute or slide may be expeditiously constructed to carry off the sifted products when desired, the construction being simple, durable, and economical.

WATCH BOW FASTENING.—Frank G. Faxon, Mount Morris, N. Y. Combined with the watch bow is a divided pendant, between whose members the ends of the bow are clamped, and which are relatively adjustable to bring them into closer relation, the bow being held in such manner as to render it impossible to accidentally detach it from the pendant.

FARE BOX.—Timothy L. Beaman, Knoxville, Tenn. This invention covers novel features of construction and combinations of parts in a fare box designed to be proof against robbing implements in the hands of the driver or other person, while the box is made strong and generally efficient for its purposes.

SIGNAL BOMB.—Reginald H. Earle, St. John, Newfoundland. This is a bomb designed to be used as a marine signal, and is so made as not to be affected by dampness, and so it can be ignited irrespective of the state of the weather, while in exploding it will send aloft a heavy volume of flame and smoke and give a heavy detonation.

STEREOSCOPE.—Adelbert E. Foutch, New Albany, Ind. This device has an endless series of view holders distended upon rollers, a set of journal plates arranged to slide horizontally in guides and carrying the rollers, toothed gears for adjusting the plates horizontally, and a sliding bevel gear connection with the roller for rotating the series of view holders, the views being arranged in endless series to be successively brought into focus of the lenses.

LUNCH HEATER.—Timothy O'Mahony, Felton, Cal. This is a cylindrical heater constructed of sheet metal and having an open top, with inwardly projecting arms for supporting a dinner pail, and notched lugs for connecting with studs on the pail.

PAPER BOX.—John F. Diemer, Elizabeth, N. J., and Paul E. Gonon, New York City. This is a knock-down paper box especially adapted for filing or storing papers, bills, etc., and is so made that when set up it is provided on each corner on the outside with an angular metallic strip, whereby the box body becomes very strong.

CHECK BOOK.—Henry R. Wilson, Brooklyn, N. Y. This invention covers an attachment for check books to be used as a stub holder and check cutter, and consists of a cutter bar and a flexible connection pivoted thereto and arranged for loose connection with the book cover.

FOOT SCRAPER.—William H. Tyler, David City, Neb. This scraper is formed of a single piece of sheet steel, having at the extremities of its scraping edge rounded ears for engaging the soles of a boot or shoe, and having feet formed by splitting the plate and bending the split portions in opposite directions.

TRUNK ATTACHMENT.—Joseph Ware, Brooklyn, N. Y. This is an attachment to secure the trunk when closed, and enable it to withstand severe handling and rough usage, and it consists of battens connected together to extend over the trunk, blocks and tackles connecting two of the battens together for tightening and securing the battens to the trunk.

REEL AND SPRINKLER.—Richard Wylie, Napa, Cal. This invention combines a tubular frame on wheels, having a handle, with a series of sprinkling nozzles on its front end, the tubular axle having a tubular connection with the sides of the frame, with a connecting hose wound on the reel, whereby, when the machine is pushed or drawn along, the passage of water through the axle and frame may be maintained.

GARMENT SUPPORT.—Charles R. Hollis, Pittsfield, Mass. This invention relates to supporters for holding up children's drawers and stockings from the waist, for which the invention provides a convenient and readily attachable spring device which permits of the free and easy movement of the child's body without any strain upon the drawers and the loops.

BUCKLE.—Sallie C. Tucker, Garnett, Kansas. This buckle consists of two parallel end loops connected at their lower outer corners by a cross bar, and also connected above the bar by a horizontal loop, the upper and lower bars of which are in vertical alignment, whereby two tape or strap passages cross each other, and either tape or strap may be adjusted without interfering with the adjustment of the one crossing it.

SCIENTIFIC AMERICAN
BUILDING EDITION.

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1. Elegant plate in colors showing elevation in perspective and plans of an attractive residence costing five thousand dollars, sheet of details.
2. Plate in colors of a cottage for three thousand dollars, with plans, elevations, sheet of details, etc.
3. Perspective and plans of a villa at Paris-Auteuil.
4. Moving a house thirteen miles by water. From Wheeler's Mills, on the Housatonic River, above Stratford, Conn., to West Stratford, Conn. Full page of engravings showing the various stages of the operation, also floor plans of the building.
5. A beautiful residence lately built on Reynolds Terrace, Orange, N. J., from designs by architect John E. Baker, of Newark, N. J. Perspective and floor plans.
6. A villa near New York. Cost eight thousand dollars. Plans and perspective.
7. A Queen Anne cottage for three thousand five hundred dollars, lately erected at Richmond Hill, N. Y. Floor plans and perspective.
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13. Engraving and plans for a cottage costing two thousand three hundred dollars.
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15. Miscellaneous Contents: A lien law for grave-stones.—How to save ceilings when cracked, sagging, and ready to fall.—The Willer sliding blinds, illustrated.—Improved woodworking machine, illustrated.—An improved reversible ratchet brace, illustrated.—Canton, Ohio.—An improved dumb waiter, illustrated.—Water pressure regulators.

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Notes & Queries

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References to former articles or answers should give date of paper and page or number of question.

Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all, either by letter or in this department, each must take his turn.

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Books referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly marked or labeled.

(570) S. V. asks how to color metal with aniline colors and produce the matte or dull effect as contrasted to the bright and polished. A. Try dissolving the colors in photographer's ground glass varnish. A simple application of the alcoholic solutions will leave a dead color on the metal, but this will not be permanent unless varnished, which of course will tend to brighten the surface.

(571) G. C. M. writes: Considerable sport is being had out of the horse question. The question is: A man sold a horse for \$80, bought him back again for \$70, and sold him a second time for \$100. What did he make in the transaction? A. The question is a "catch." At the end of the transactions the man was to be debited with \$180 and credited with a horse and \$70. If the horse was worth more than \$110, he lost the equivalent of the excess. If worth less than \$110, he made a profit equal to the difference.

(572) J. W. D. asks (1) how wire solder is made. A. Wire solder is made by punching small holes, from one-thirty-second to one-sixteenth inch diameter, in the bottom of a sheet iron pan along one side, holes to be one-half inch apart. Set the pan upon a flat plate of iron or a flat stone slab, pour in the solder, and tip the pan so that the solder will flow through the holes, drawing the pan along the slab fast enough

to leave trains of solder cooling in the form of wires. This will require a few trials to succeed well and make the wire even. 2. How to true or correct the balance of platform scales. A. Scales made by different makers require different treatment. You had better write to the makers of your scales for directions.

(573) X. T. Y. D. asks: 1. Can I assay copper ore by pulverizing, dissolving in sulphuric acid, and precipitating with iron? A. You cannot dissolve copper ore as you describe. Sometimes it is dissolved by the use of bromine or chlorate of potash with acids. The copper can be precipitated with clean pure iron wire. 2. I have some fine wood cuts; how can I varnish them so that the printing on the other side will not show? A. Size the pictures with white glue and varnish with dammar varnish.

(574) H. S. W. asks where he can obtain information in regard to building a boat called a "Barnegat sneakboat." A. The usual length of a Barnegat sneakboat is 12 feet, width 4 feet, square stern 34 inches wide, 7 inches deep. Midship depth 16 inches, low sides. Flaring canvas deck. Cockpit, 7 feet long by 19 inches wide, with wood combing. Rowlocks raised 8 inches and made to fold in when not in use. Can be clinker built, with frame, or, as often built, like a skiff, for which see SCIENTIFIC AMERICAN SUPPLEMENT, Nos. 25 and 26, "How to Build Skiffs."

(575) B. S. asks: 1. Has it not been proved theoretically and practically that to obtain the highest efficiency of an hydraulic propeller, the water must be ejected above and not below the water line? A. No. This is theoretically and practically a failure. 2. Has by practical tests any considerable success ever been attained with an ejection below the water line? A. All efforts at hydraulic propulsion have heretofore proved failures. 3. Where can I find the best records of such tests? A. See SCIENTIFIC AMERICAN SUPPLEMENT, Nos. 354, 415, on hydraulic propulsion.

(576) E. L. A. asks: 1. Is the eight-light dynamo described in SUPPLEMENT, No. 600, large enough to charge storage batteries sufficient to run 20 incandescent lamps? A. Yes, it will charge them at a reasonably good rate, say at 8 to 10 amperes. 2. If not, how many will it run, 16 candle power? A. The dynamo will run 8 to 10 such lamps. 3. How many storage batteries will be required? A. For fifty-volt lamps you will need twenty-five cells in series. 4. What SUPPLEMENTS describe storage batteries and how to make them? A. Nos. 688, 459, 600, 625, 626, and many others.

(577) W. A. R. asks: Is the bottom of a kettle of boiling water hotter or colder than the water when boiling, the kettle remaining on the fire? A. It is hotter than the boiling water.

(578) J. E. A. writes: 1. Has there ever been a locomotive driven by electricity generated with a galvanic battery? A. Many years ago experiments were tried by Dr. Page in this direction, but the expense of driving such motors proved too great. 2. If so, what battery was used? A. We presume a copper zinc couple excited by sulphuric acid was used. 3. What galvanic battery will give the best results in driving an electric motor, where cost is no consideration? A. A large Bunsen battery is about the best.

(579) C. F. J. writes: Can you advise me how to treat a steel woven-wire mattress so that it will withstand the action of dampness and not rust when used in a small yacht? The cloth-covered mattress placed on it will sometimes be perceptibly damp to the touch. A. We can only suggest painting or varnishing. These will tend to preserve it, but will not be very effectual.

(580) J. S. Van D. writes: 1. There is a small glass globe (about 2 in. in diameter) exhibited in show windows, containing a revolving fan made with diamond shape wings covered with tin foil or silver leaf, suspended vertically in globe. It may be a vacuum, and motion caused by light or heat; tell me cause of motion, and how they are constructed. A. See our SUPPLEMENT, Nos. 13, 26, 37, 69, etc., for description, etc., of radiometer. The motions of the molecules of highly rarefied air in the globe cause it to rotate. 2. Will city illuminating gas under pressure blown upon lime without the aid of oxygen produce intense heat enough to make the Drummond light, to be used for magic lantern purposes? A. No; you must use oxygen gas. 3. Would the gas produce more heat on lime by having the tube through which the gas passed highly heated previous to its being burned at the nozzle or jet? A. Yes; but hardly intense enough to produce a good light.

(581) H. C. W. writes: I have a few ordinary lime crystals, and I wish for curiosity to color them blue or pink or some other colors. I read some time ago that the Germans have some method. Can you furnish me with the information? A. We doubt if you will succeed in coloring your crystals. Try aniline colors dissolved in water, in which you may boil the crystals.

(582) C. J. L. asks: What causes the musical sound produced on the tumblers partly filled with liquid and rubbed on the rim with the finger? Is there any preparation placed on the finger? A. The friction of the finger makes the glass vibrate and produce sound. The finger should be wet, or resin may be applied to it.

(583) A. S. E. asks: 1. In a frictional electric machine plate, will shellac decrease the amount of electricity generated? A. No; but if applied to the glass plate, it would soon rub off. If then the partially stripped glass plate is used, an interference of positive and negative electricity may ensue, so as to cut down the amount produced. 2. What is the formula for making the chromates of Fe, Zn, Cu, etc.? A. Treat the hydrated oxides of the metals with aqueous solutions of chromic acid in cases where the desired chromates are soluble; where insoluble, mix the soluble salts of the metals with potassium chromate, both in aqueous solution. 3. Is there any SUPPLEMENT of the SCIENTIFIC AMERICAN containing directions, etc., for making frictional machines? A. No. 4. If, in an electrical machine, two plates are made to revolve in different directions on either side of a fixed plate, does the electri-

city generated amount to more than when the plates revolve the same way? Also, effect of middle plate turning in opposition to other two? A. It is a matter of experiment. You do not clearly state the conditions. 5. Can a chemist practice assaying in his own name, without being a graduate of any licensed college, or having a diploma? A. Yes.

(584) J. M. W. asks if there is any known article that will clean the hands of printers of either ink or colors, without injury to the skin? A. Caustic soda or kerosene oil may be used for printer's ink. The former must be dilute or it will affect the skin unpleasantly. Other inks yield to oxalic acid, javelle water, etc.

(585) G. H. F. asks for a simple rule for reducing Fahrenheit scale to Centigrade. A. Subtract 32°, expressing degrees below 0° F. as minus quantities; multiply the result by 5/9; the result will be the equivalent in Centigrade degrees.

(586) I. M. G. asks if powder, such as is used in revolver cartridges, becomes dead with age? Does any kind of powder die? I have a loaded revolver that has not been shot off for about fifteen years; would it be dangerous? A. Powder does not become dead with age. It may deteriorate by dampness. It would probably be risky to fire off your revolver, on account of deterioration of metal, rusting and clogging of the barrel, etc.; the nipples, if it is not a cartridge-loaded weapon, are probably so filled with rust, etc., that they would have to be cleaned out before discharging the piece.

(587) J. C. A. writes: 1. Can petroleum be exploded in its own volume in a strong closed vessel without a supply of air? A. Petroleum is not explosive. If placed in a vessel with a sufficient quantity of air for its combustion, it might by heating be made to give some sort of an explosion. 2. Would the pressure be increased much by introducing a certain quantity of air, and if so, how much air is requisite to do so, and how much would the pressure be increased? A. In general terms it should first be made into gas. Even then it would be hard to explode when mixed with air, because a large proportion of air, 25 to 50 volumes, would be required, which involves the introduction of a large quantity of inert nitrogen. Quite a high pressure is developed instantaneously by these explosions, possibly as high as 100 lb. to the square inch. 3. Would the oil, or the oil and air, if kept in a strong and tight vessel, retain its pressure any length of time, or would it gradually die out? A. Pressure could be maintained for any length of time in a tight vessel.

(588) A. R. H. asks: 1. What is the best temperature to run paraffine wax at? A. 150° to 200° F. 2. What is it made from? A. Coal, shales, ozocerite, etc. 3. How to stop its shrinking or becoming hollow when it cools? A. Let it cool slowly and add more melted paraffine to supply the deficiency.

(589) C. R. C. writes: Will you please give me a receipt to color white pastebord the color of leather, or something that will not lose its color in damp weather? A. Soak in solution of copperas and then in ammonia.

(590) E. N. S. asks: 1. Would solenoids of iron wire wound about the projecting ends of the core of an electro-magnet give good results as pole pieces? A. Not very good, from want of solidity and imperfect contact. 2. Would amalgamating the zincs of a gravity or other form of blue vitriol battery interfere with the working of the battery? If not, why are they not usually amalgamated? A. No. It is unnecessary, and hence is not done, as it would involve useless labor and expense. Your barometer would not work as you describe. Study hydrostatics, and you will see where the fallacy occurs.

(591) W. A. S.—The mineral sent is magnetic iron ore. Try it with a magnet, and you will find the powder adhere.

(592) O. T. asks whether common fertilizing bone dust is burned into charcoal, or is it used without burning? A. No; it is used as ground. 2. Is it injurious to vegetables, especially potatoes? A. No; it is beneficial. 3. What is the cause of so many green and bitter potatoes? A. Climatic and other conditions are, we presume, responsible.

(593) S. H. B. writes: 1. I am making a machine in which two rollers work in a liquid not quite as thin as water, but just as wet. Wooden rollers split, metal ones are too heavy. Can you give me instructions how to make them, to be waterproof, and that I can cast to shape desired, or can turn up and drill in lathe? I would like something with as low specific gravity as can be. A. We would suggest celluloid, ivory, or glass as material for your rollers. 2. I have seen in the SCIENTIFIC AMERICAN and several other valuable mechanical journals "Way to Cover Solder Marks on Brass Work;" have tried several of these wrinkles, but they will not "wrink." The sulphate of copper trick is a total failure. It makes the work black wherever there is any solder. Can you give me anything on that line of solder? A. The sulphate of copper "trick," as you term it, should have some effect, if the black deposit is polished off with a burnisher. You may cover the spots in a rather inefficient way by giving them a coating of orange shellac in alcohol.

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TO INVENTORS.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

March 19, 1889,

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Table listing inventions with patent numbers, including: Air ship, H. A. J. Rieckert; Anchor, Duren & Bills; Arm support for bookkeepers, adjustable, R. Hynitzsch; Axle lubricator, car, C. A. Howard; Bag, See Paper bag, Tobacco bag; Bagasse furnace, W. W. Sutcliffe; Barrels, scuttle for, J. B. Eatman; Bars, machine for changing the angle of the flanges of Z and angle, W. E. Highfield; Basins and baths, secret supply, waste, and overflow for, W. H. Newell; Basket or carrier, I. J. W. Adams; Bath, See Portable bath; Bearing, anti-friction, T. R. Ferrall; Bed, folding, L. C. Butterfield; Bed, spring, F. M. Jeffery; Bedsteads, crib attachment for, V. Fitz; Beehive, F. M. Clement; Belt fastener, W. G. Avery; Belts, hinge joint for electric, N. Warrell; Belting, G. F. Page; Belting, machine, G. F. Page; Bicycle, T. O'Brien; Billiard table rail and cushion, C. G. Brockway; Bin, See Flour bin; Binder, temporary, J. F. Brown; Blower, electric blast, H. H. Blades; Bluing package, T. F. Conklin; Board, See Ironing board; Boats in series, launching, C. W. Delon; Boiler, See Wash boiler; Boiler, J. H. Cunningham; Boiler, J. T. Smith; Bolster spring for wagons, E. Cliff; Bolt heading machine, E. Burdall, Jr.; Bolting reel, W. E. Gorton; Bomb, signal, R. H. Earle; Book, account, E. G. Stevens; Book carriage and protector, L. C. Leith; Book cover, F. F. Brailleur; Book mark, H. L. Mehrer; Books, cutting attachment for check, H. R. Wilson; Boot tree, A. M. Moore; Boots and shoes, manufacture of, G. H. Clark; Bottle wiring machine, Schrader & Sturm; Bottles, spreader and stopper for, E. Pomeroy; Box, See Fare box, Journal box, Mail box, Paper box; Brake, See Car brake, Vehicle brake, Wagon brake; Brake shoe, S. Hatt; Brick machine, R. F. Robison; Bridges, rails, etc., apparatus for indicating the deflection of, O. Leuner; Buckle, S. C. Tucker; Buildings, construction of, J. E. Rankin; Burial case, J. H. Walker; Burner, See Gas burner, Hydrocarbon burner, Oil burner; Burnishing machine, G. B. Kelley; Cables, electric alarm signal for, Woodring & Gilbert; Can filling and packing apparatus, S. L. Gregg; Cans, mechanical lid shutter for, B. Wesselmann; Car brake, C. Mayer; Car brake, B. L. Wright; Car brake, street railway, W. B. Clark; Car platforms, die for forging the followers of extensible railway, Reilly & Bergman; Car, stock, E. U. Benedict; Cars, switching or transferring, Armil & Seabee; Carcasses, device for spreading, G. P. Schmidt; Card for buttons or studs, C. G. Bloomer; Card grinding machine, S. A. Prescott; Carriage curtain fastener, S. P. Scott; Cart spring, road, F. Drifill; Cartridge belt, T. C. Orndorff; Cartridge and other belts, fastening for, A. Mills; Cartridges and cartridge magazines, belt for holding, A. Mills; Cartridges for transportation and distribution, packing, T. C. Orndorff; Case, See Burial case, Needle or pin case, Note case; Cash recorder, J. M. Warner; Chair, See Rail chair; Chart, percentile measurement, F. Swain; Churn, P. C. Barlow; Churn, W. D. Makemson; Churn closure, J. McDermid; Cigar vending apparatus, W. C. Doubleday; Cigarettes, machine for dipping, C. H. & W. B. Whitaker; Cleaner, See Grain cleaner, Seed cleaner; Clip, See Halter bolt clip, Whiffetree clip; Clock, alarm, A. Bannatyne; Clock, repeating, E. Bannatyne; Clutch, friction, E. Boehme; Clutch, friction, H. Erdman; Coal elevator, J. Chase; Cocoon, apparatus for reeling silk from the, E. W. Serrell, Jr.; Cocoons, apparatus for separating waste floss from, E. W. Serrell, Jr.; Coffee, apparatus for preparing liquid, C. Wagner; Coffee mill, E. H. & C. Morgan; Coffee pot, E. B. Lobach; Coffin, A. Weckmiller; Coins, pad for convenience in handling and picking up, A. E. L. Slazenger; Collar, horse, W. Cosbie; Composing stick, Ludington & Leland; Concentrator, F. Sletcher; Condenser, ejector, N. W. Wheeler; Cot, folding, C. T. Segar; Cotton, machine for opening, cleaning, and ginning seed, J. R. Montague; Coupling, See Pipe coupling, Thill coupling; Cover fastener for vessels, J. H. Cassidy; Cultivator, J. G. Gaither; Cultivator, E. J. Landes; Cultivator, A. Lewis; Curtain attachment, J. Emmert; Curtain holder, Nolley & Wyatt; Cutter, See Meat cutter, Root cutter; Die, See Screw cutting die; Dish, covered, G. Jones et al.

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