

3. Please give title of a work, other than Hopkins and Dyer, on construction and law of currents of induction coils. A. We can supply "Induction Coils and Coil Making," by Allsop, price \$1.25, and "Induction Coils, a Manual for Coil Makers," by Bonney, price \$1, mailed.

Business and Personal.

The charges for insertion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in the following week's issue.

Marine Iron Works. Chicago. Catalogue free. "U. S." me all polish. Indianapolis. Samples free. Mariner & Hoskins, Assayers, 81 Clark St., Chicago.

For Sale—European patents. Article paying immense profit. Will duplicate machinery for foreign manufacturing. E. F. Knight, 701 Pontiac Building, Chicago.

The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4, Munn & Co., publishers, 361 Broadway, N. Y.

For the original Bogardus Universal Eccentric Mill, Foot and Power Presses, Drills, Shears, etc., address J. S. & G. F. Simpson, 26 to 36 Rodney St., Brooklyn, N. Y.

Engineers—Go into the profitable business of Concrete Construction, Ramsome's System. Easily learned. Liberal terms for exclusive rights. Ramsome & Smith Co. 622 Boylston Bldg., Chicago.

Wanted.—Copies to complete files of the following Revolutionary magazines: Massachusetts Magazine, New York Magazine, Royal American Magazine, Columbia Magazine. State price, and whether perfect or not. Address M. A. C., Box 773, New York.

Send for new and complete catalogue of Scientific and other books for sale by Munn & Co., 361 Broadway, New York. Free on application.

TO INVENTORS.

An experience of nearly fifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequalled facilities for procuring patents everywhere.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted March 31, 1896,

AND EACH BEARING THAT DATE.

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

Table listing inventions such as Abrading and fitting work, machine for, L. Wenzel, 557,462; Acid and making same, pyrocatechin mono acetic, W. Majert, 557,410; Advertising device, Joski & Hall, 557,333; Air brake, G. S. Lee, 557,511 to 557,515; Air brake, H. H. Westinghouse, 557,464; Air current regulator, J. C. Rauda, 557,423; Ammonia from waste sugar lyes, obtaining, L. Sternberg, 557,136; Anobor bolt, I. Church, 557,361; Automobile, C. Sucker, 557,280; Automobile switch, T. A. Osborne, 557,359; Bar fastener, L. A. W. Johnson, 557,173; Bar fastening machine, M. G. Gill, 557,378; Baking, etc., rotary stand for, E. Shaw, 557,344; Barber's chair, G. W. Archib, 557,097; Bath tub, R. K. Galvay, 557,289; Battery, See Galvanic battery; Heating, Sherry & Murphy, et al., 557,283; Bedclothes clamp, J. W. Utter, 557,465; Bell, bicycle, A. F. Rockwell, 557,287; Bicycle, F. Jensen, 557,180; Bicycle connecting device, M. C. Geldowsky, 557,309; Bicycle differential gear, Stolz & Eshelman, 557,342; Bicycle lock, S. H. Patterson, 557,283; Bicycle rack, G. D. Young, 557,470; Bicycle saddle, B. S. Seaman, 557,238; Bicycle screen, lady's, T. R. Cherry, 557,488; Bicycle support, G. W. Cross, 557,191; Bicycle wheel and chain guard, C. E. Hadley, 557,267; Bicycle wheel rims, manufacture of, M. A. Smith, 557,220; Blast furnace, M. W. Iles, 557,127; Block, See Spelling block; Boat detaching apparatus, F. Blandin, 557,475; Boiler, See Domestic boiler, Locomotive boiler, Steam boiler; Boiler, M. P. Boss, 557,354; Boiler furnace cleaner, E. A. Balz, 557,289; Boiler furnace, locomotive, J. Milton, 557,312; Bolt, See Anchor bolt; Bone black, kiln for revivifying, B. Eba, 557,486; Bottle, Sherry & Murphy, 557,185; Bottle, mucklache, D. T. Fille, 557,118; Bottle necks, thread forming tool for, J. Taylor, 557,451; Box, See Fare box, Folding partition box, Music box, Packing and display box; Box, J. D. Batin, 557,101; Box, C. A. Grant, 557,130; Box, A. J. Welsander, 557,461; Box corners, machine for attaching stays to, M. D. Knowlton, 557,401; Box covers, machine for making, Lovens & Paulson, 557,516; Bracket, See Metal bracket, Shelf bracket; Brake, See Air brake; Brake lever bottom bar, C. Hackney, 557,122; Breast drill, A. D. & H. E. Goodell, 557,328; Bridges, abutment guard mechanism for, R. P. Clark, 557,103; Broiler, meat, G. W. Aldrich, 557,086; Broom back holder, A. Cowpe, 557,261; Broom or brush, W. J. Bradt, 557,104; Buckle, C. A. Conger, 557,253; Burner, See Gas burner, Hydrocarbon burner, Stove burner; Butter pressing and moulding machine, C. A. Can, See Jacketed can; Can opener, F. Sharp, 557,158; Cans, key for opening sealed, O. S. Fellows, 557,367; Cans, key for opening sheet metal, O. S. Fellows, 557,368; Car coupling, J. E. Cady, Jr., 557,369; Car coupling, C. Epps, 557,302; Car coupling, J. Harper, 557,283; Car coupling, J. Moss, 557,215;

Table listing inventions such as Car coupler, G. H. Pacaud, 557,283; Car door case and cleat, J. W. Jordan, 557,273; Car fender, J. P. Geraghty, 557,292; Car fender, T. C. Hammond, 557,201; Car fender, J. Jones, 557,201; Car fender, P. A. Menzies, 557,145; Car fender, Padberg & Hummel, 557,316; Car fender, S. A. Poltisky, 557,226; Car fender, street, J. H. MacDonald, 557,336; Car fender, street, W. Spencer, 557,161; Car fender, street, J. G. Noyes, 557,223; Car safety fender, G. H. Moller, 557,334; Car wheel brake shoe and dresser, J. E. Worswick (reissue), 11,527; Cars, steam heating apparatus for railway, E. E. Gold, 557,265; Carriage, E. B. Linn, 557,185; Carriage, C. N. Dennett, 557,185; Cash register, C. F. Hamilton, 557,124; Cash registering and indicating machine, D. T. Methven, 557,517; Casting metal skeleton frames, mold for, L. J. Cecchi, 557,190; Chair, See Metal chair; Chair, Linn & Gohlke, 557,406; Chair rinner, rocking, W. Werner, 557,521; Chart, educational, S. L. Blaisdell, 557,182; Check rower, M. C. Nixon, 557,315; Chopper, See Steak and weed chopper; Clearing machine, J. G. Noyes, 557,375; Clamp, See Bedclothes clamp, Tire clamp; Clay disintegrator and stone separator, B. E. Bechtel, 557,472; Clock dial, geographical, D. W. Thompson, 557,173; Clock bowing device for repairing spuds of sanitary pipes, 557,186; Coal rock, etc., device for splitting or breaking down, W. A. McKinlay, 557,143; Coal screen, F. H. Symons, 557,172; Collar, necktie and stud fastener, McDermott & McNulty, 557,290; Color mill, J. Schmidt, 557,150; Computer for high voltage dynamos, Oebing & Watt, 557,218; Confectionery, machine for coating, W. B. Phinney, 557,426; Cooking utensil, G. W. Cross, 557,259; Corn or burr, R. R. Bergerding, 557,419; Corset, T. S. Gilbert, 557,419; Corset, Weingarten & Grotta, 557,460; Coupling, See Car coupling, Hose coupling, Pipe coupling, Thill coupling; Culinary appliance, B. Moser, 557,313; Culinary vessel, E. B. Stears, 557,288; Cultivator, H. M. Burdick, 557,484; Cultivator, H. Wiard, 557,485; Curtain fixture, J. Bodenstab, 557,183; Curtain pole, M. Lansing, 557,381; Cutter, See Glass cutter; Cutting machine, 557,157; Cycle pedal, O. Pfeiffer, 557,507; Cylinders, means for balancing inertia of oscillating, H. H. Westinghouse, 557,294; Dental plugger, electrical, P. R. Skinner, 557,159; Dental tool, A. J. Brown, 557,323; Deodorizing, perfume and products thereof, A. J. Temper, 557,291; Dish washer, M. Covell, 557,112; Domestic boiler, H. E. Grant, 557,504; Door, J. W. Rapp, 557,148; Doubletree, spring, E. L. Lidke, 557,332; Down draught, J. H. Brown, 557,419; Dressing apparatus, Wood & Perry, 557,178; Drill, See Breast drill; Drum, beat radiating, J. P. Lynott, 557,211; Dust-collecting machine, H. J. Livergood (reissue), 11,528; Dye, black, J. Schmidt, 557,436; Dye, blue, J. Schmidt, 557,436, 557,436; Dye, blue-black, J. Schmidt, 557,440; Dye, polyanthracene, J. Schmidt, 557,439; Dyeing and sprinkling, art of and apparatus for electro, G. D. Burton, 557,325; Dyeing, electro, G. D. Burton, 557,324; Dynamometer, G. W. Lewin, 557,133; Eaves troughs, apparatus for forming, C. F. Throm, 557,348; Electric currents, distribution of, I. Kitsee, 557,348; Electric cut out, Davy & Torrance, 557,377; Electric meter, C. P. Stemmets, 557,164; Electric motor, regulating, J. Burke, 557,185; Electric switch, C. G. Perkins, 557,224; Electrical distribution, multiple series system of, F. B. Beck, 557,099; Electrical energy, means for transmitting, T. W. Onderdonk, 557,422; Electrical lighting apparatus, R. A. Schoenberg et al., 557,484; Elevating and transferring apparatus, B. F. Shubar, 557,345; Elevator door, attraction, F. E. Herdman, 557,304; Elevator gate, Olds & DeVore, 557,219; Elevator safety device, A. C. Ellithorpe, 557,117; Emery blocks, manufacturing, J. J. Faulkner, 557,503; Engine, See Gas engine, Rotary engine, Steam engine, Traction engine; Engine or motor, J. Duran, 557,496; Engine starting apparatus, J. Donnelly, 557,259; Envelope, T. F. Handley, 557,202; Eucalyptol, obtaining, L. R. Scammell, 557,431; Exercising apparatus, A. A. Whitley, 557,176; Eyeglasses, J. E. Boyle, 557,225; Fan motor, 557,317; Fare box, C. T. Lamoignon, 557,131; Faucet for beer or other casks, Kelley & Seeton, 557,292; Faucet, slow closing, W. A. Turner, 557,292; Feed trough, W. S. Witten, 557,496; Feed water heater, C. W. Eccleston, 557,260; Fence, Mowbray & Vanman, 557,280; Fence, E. Roth, 557,430; Fence post, R. B. Robbins, 557,226; Fence post, W. J. Sleep, 557,443; Fence, wire, J. Combs, 557,490; Fence wire stretcher, W. W. Norman, 557,418; Fender, See Car fender; Car safety fender; Filter, E. M. Knight, 557,309; Filter, E. A. Wilder, 557,177; Filter, water, Z. Fenno, 557,370; Firearm, automatic magazine, A. Burgess, 557,369; Firearm, magazine, A. Burgess, 557,368; Fire extinguisher, J. Mansfield, 557,217; Fire lighter, automatic, D. R. Courvoisier, 557,254; Fireplace furnace and ventilator, E. S. oskers, 557,231; Fireproof floor and ceiling, Ralph & Wright, 557,100; Flashlight apparatus, electric, G. R. Lawrence, 557,403; Folding partition box, W. H. Ferguson, 557,371; Fountain, pen, 557,280; Frying pan, Hodges & Robbins, 557,126; Funeral carriage or car, R. A. McCauley, 557,335; Furnace, See Blast furnace, Boiler furnace, Dwindraft furnace, Fireplace furnace; Furnace, C. E. Wymann, 557,469; Furred pelts, machine for plucking hair from, S. E. Sackett, 557,236; Fuse for shells, time, H. Tolley, 557,454; Gage, See Micrometer gage; Galvanic battery, E. S. Boynton, 557,355; Game apparatus, H. R. Hinckley, 557,205; Gas burner, J. H. Schindler, 557,283; Gas engine, Daly & Conson, 557,243; Gas generator, F. Thuman, 557,243; Gas producer, J. D. Swindell, 557,171; Gate, See Elevator gate; Gate, Copper & Colver, 557,491; Gate, E. H. Evans, 557,305; Gate operating mechanism, electric, F. J. Drott, 557,493; Generator, See Gas generator, Steam generator; Glass blowing apparatus, F. Altenbach, 557,238; Glass cutter, A. D. Goodell, 557,200; Glassware, machine for manufacturing, J. R. Bridges, 557,105; Grading and ditching machine, C. F. Hinman, 557,125; Grain binder butt adjuster, J. F. Steward, 557,447; Grater, nutmeg, C. A. Prest, 557,508; Grinding stone, H. D. Blumenfeld, 557,301; Gun carriage, S. G. A. Canet, 557,487; Harness, S. M. Schindler, 557,452; Harp, T. H. Roth et al., Mansfield, 557,509; Hat fastener, K. Liebreich, 557,405; Heater, See Car heater, Feed water heater; Heating and soldering machine, O. S. Fellows, 557,366; Heating apparatus, N. E. Frost, 557,528; Heating apparatus, hot water, E. E. Clark, 557,169; Heating apparatus, steam, R. A. Field, 557,283; Hinge, R. Black, 557,473; Hoof spreader, J. Trenkle, 557,455; Horns of beaves, guard for, J. L. Straw, 557,170; Horse detacher and brake, combined, J. Friedlander, 557,373; Hydraulic, elastic tread, A. L. Gorman, 557,167; Hose coupling, Outhouse & Bohlen, 557,423; Hydrocarbon burner, R. A. Poltrino, 557,225; Indicator, See Office indicator; Inkstand, J. S. Farmer, 557,425; Iron, See Sand iron; Irrigation, elastic hose, H. Gordon, 557,380; Jack, See Wagon jack; Jacketed can, H. L. Gates, 557,308; Knitting machine needles, machine for grooving, W. H. Stewart, 557,169; Knitting machines, automatic yarn changing attachment, for, W. H. Stewart, 557,168; Lacing studs or similar articles, covering, F. Ege, 557,526; Lamp, W. M. Hoerle, 557,270;

Table listing inventions such as Lamp, J. Kirby, Jr., 557,297; Lamp carbon holder, arc, C. A. Pfleger, 557,518; Lamp, electric arc, W. D. Ray, 557,229; Lamp shade, incandescent electric, S. O. Richard, 557,342; Lamp signal, A. H. Handlan, 557,282; Lantern, bicycle, W. L. Keene, 557,394; Last, H. G. Locke, 557,210; Leather folding machine, G. Pollock, 557,341; Lifter, See Plate lifter; Liquid lubricator, H. Bender, 557,352; Lock, See Bicycle lock; Locomotive boiler, W. B. Warren, 557,459; Loom pattern mechanism, Wicks & Roy, 557,295; Loom shuttle changing mechanism, E. H. Ryan, 557,519; Mail receiver and deliverer for cars, Andriot & Cecchi, 557,322; Mandolin pick holder, F. Wahl, 557,293; Manicure table, A. Rosenberg, 557,234; Match safe, F. H. Romas et al., 557,233; Mathematical instrument, A. Lietz, 557,383; Mechanical movement, G. M. Eckels, 557,116; Metal breaker, G. Hicks, 557,111; Meter, See Electric meter, Photographic exposure meter; Micrometer gage, F. Spalding, 557,445; Milking machine teat cup, A. Shiels, 557,241; Mill, See Colmill, Ore crushing mill; Mine trap door, O. Brien, 557,481; Mining machine, C. H. Knowlton, 557,144; Mining machine, C. O. Palmer, 557,340; Mitten, driving, D. C. Clapp, 557,362; Mould, See Pipe covering mould; Motion, mechanism for imparting and reversing, E. S. Burman, 557,496; Motor, See Fan motor; Mower, A. Pfund, 557,317; Music box, A. Vernaz, 557,349; Musical instruments, brace for necks of, Kelly & Moore, 557,277; Nut, J. O. Richards, 557,230; Office indicator, J. A. Day, 557,194; Oil and steam separator, D. Cochrane, 557,108; Oil, refining cotton seed, F. B. Aspinall, 557,098; Oils, process of and apparatus for oxidizing, F. Walton, 557,457; Ore crushing mill, H. P. Holland, 557,529; Ore crusher, magnetic, O. M. Graves, 557,121; Oven, baking, G. Huebner, 557,390; Package, sealed, O. S. Fellows, 557,364; Package, device for opening sealed, O. S. Fellows, 557,365; Packing and display box, E. J. Severance, 557,240; Paper cutting machine, M. Knowlton, 557,100; Padlock, B. S. Blake, 557,522; Padlock, permutation, T. D. Scruggs, 557,155; Pan, See Frying pan; Panoramic display mechanism, A. C. Allyn, 557,179; Pants gaiter, bicycle, A. A. Billingsley, 557,187; Patent printing machine, M. Knowlton, 557,400; Paper folding machine, O. H. Marston, 557,310; Paper marbling machine, A. H. Schneidawind, 557,438; Peeler, vegetable, G. J. Capewell, 557,188; Peeler, vegetable, O. C. Merrill, 557,212; Pelts, machine for refining, P. Jenik, 557,129; Pen, fountain, G. J. Renz, 557,149; Pen, fountain, G. J. Renz, 557,149; Pencil sharpener and point guard, J. Kraker, 557,402; Perforating, pinning, and punching machine, W. H. Keighly, 557,276; Photographing child's support, C. J. Prease, 557,132; Photographing, exposure meter, G. E. Wynn, 557,246; Photographic printing apparatus, W. Friesse-Greene, 557,119; Piano action, upright, J. W. Fischer, 557,261; Piano attachment, mouse proof, G. P. Bent, 557,353; Piano hammer, H. B. K. Rosenfeld, 557,429; Piano music rack, C. E. Elias, 557,304; Piano, upright, on top of, E. H. Ogden, 557,420; Pin, See Safety pin; Pin pointing machine, G. H. Kephart, 557,209; Pipe coupling, R. Wigan, 557,236; Pipe covering mould, G. Armstrong, 557,351; Pipe, draw bench for manufacturing, P. Boyer, 557,478; Planing machine, C. C. Emmons, 557,479; Planing apparatus, G. A. Ensign, 557,327; Planter and transplantor, combined potato, A. M. Bryson, 557,483; Planter, rock row turn, R. R. Spear, 557,136; Planter, seed, J. A. Menzel et al., 557,255; Plate lifter, W. J. Cranford, 557,255; Plow barrow attachment, P. E. Hayden, 557,269; Power transmitting device, E. A. Sperry, 557,162; Press, See Printing press; Printing machine, M. L. W. Hallenbeck, 557,381; Pulp, machine for forming bodies from, Fairbanks & Parker, 557,197; Pump, F. Pearn, 557,285; Pump, centrifugal, H. A. Barber, 557,300; Pump, water, W. H. Hall, 557,123; Punching and recording device, ticket, D. McGill, 557,142; Punching and shearing machine, steam, C. A. Bertsch, 557,103; Pupilometer and bridge measure, L. L. Palmer, 557,320; Rack, See Bicycle rack, Piano music rack; Rail bond and electrical connector, C. E. Moore, 557,499; Rail bond or connection, E. A. Turner, 557,174; Railway and tramway wheel, flanged, J. McDonald, 557,217; Railway, cable, Wood & Miller, 557,320; Railway, electric, 557,738; Railway metals, device for lifting, A. Von Oie-Klevicz, 557,146; Railway switch, L. A. Osborne, 557,338; Raisin seeder, G. A. Alger, 557,321; Range protecting pocket, S. C. Noble, 557,357; Receptacle, L. B. McDonald, 557,415; Register, See Cash register, Typewriter word register; Regulating treatment of substances chronometrically, etc., device for, W. E. Curtis, 557,192; Rheostat, H. E. Heath, 557,366; Ribbon retainer, F. E. Denzel, 557,115; Rotary engine, G. E. Boom, 557,476; Rod iron, F. J. Prybi, 557,227; Sad iron and triller, combined, R. A. Boyd, 557,477; Sash fastener, W. J. Clark, 557,489; Sash cord guide, F. S. Clark, 557,489; Sash fastener, storm, A. A. Loetscher, 557,408; Sash holding apparatus, window, W. Hall, 557,238; Sawmill, W. H. English, 557,391; Sawtooth, R. Motzkin, 557,414; Scaffolding, metal, J. M. Flouren, 557,136; Scaffold, builder's, E. E. Ennis, 557,500; Scraper, wheeled, B. F. Johnson, 557,330; Screen, See Coal screen; Seat, See Spring seat; Separator, See Oil and steam separator, Ore separator; Sewing machine, spinning attachment, B. Conner, 557,110; Sewing machine tuck marking attachment, O. B. Brush, 557,357; Sheet separating and feeding machine, pneumatic, G. F. Leiser, 557,279; Shelf bracket, F. Craghead, 557,482; Shelf, roller book, Jewell & Yawman, 557,392; Single sawing machine, J. B. Walker, 557,458; Ships and for raising sunken vessels, etc., apparatus for preventing sinking of, F. Kindt, 557,396; Shoe clasp locker, W. L. Judson, 557,208; Shovel, See Iron shovel, Steam shovel; Signal, sh, S. C. Davis, 557,363; Signal setting device, R. T. Kanski, 557,275; Signaling apparatus, Olsson & Morrison, 557,421; Skirt, bicycle, J. H. Deutschman, 557,495; Sled, hand, F. E. Southard, 557,346; Silver forming machine, T. E. Phillips, 557,198; Snap switch, J. S. Gibbs, 557,198; Snow and ice melting apparatus, C. F. Springfels, 557,163; Soda water apparatus, G. F. Kade, 557,274; Spectacles, S. N. Stone, 557,448; Speed measure, L. S. Starrett, 557,446; Speed measure, Wright & Terry, 557,245; Spelling block, R. W. Foster, 557,307; Spinning machine, W. J. Burnham, 557,485; Spool holder, C. W. Leach, 557,278; Spring seat, tilting, C. F. Davy, 557,494; Square, combination, C. Chretien, 557,302; Stamp canceller, E. W. Milbado, 557,413; Stay, dress fastening, R. W. Cash, 557,252; Steam boiler, J. J. Butcher, 557,524; Steam boiler, E. B. Parkhurst, 557,424; Steam engine, compound, C. J. Mellin, 557,135; Steam generator, H. Beffer, 557,136; Steam separator, E. E. Gold, 557,284; Steam separator, J. W. Parker, 557,221; Steam separator attachment, D. Cochrane, 557,109; Steam shovel or excavator, J. B. Webber, 557,350; Still, J. O. Bentley, 557,102; Stove, R. McCullough, 557,506; Stove burner, gas, Nyberg & Skoog, 557,506; Street sweeper, McGuire & Perry, 557,416; Street sweeper, C. Williams, 557,297; Stripping tool, ornamental, F. G. Wise, 557,467; Surgical knockdown table, Hay, 557,365; Switch, See Automatic switch, Electric switch, Railway switch, Snap switch, Telephone switch;

Table listing inventions such as Switch, W. G. Lewi, 557,404; Switchboard signal, I. H. Farnham, 557,527; T bar, J. W. Rapp, 557,147; Tube, See Manicuretable, Surgical knockdown table; Telephone line apparatus, C. E. Scribner, 557,158; Telephone switch and support, E. C. Paramore, 557,284; Thermostat, W. S. Johnson, 557,272; Thill coupling, A. J. McArthur, 557,314; Thrashing and clover hulling and dressing machine, Greenside, 557,266; Tile, Merrill, 557,137; Tire, bicycle, P. Schaub, 557,151; Tire clamp, vehicle, F. P. Miller, 557,138; Tire, pneumatic, C. S. Scott, 557,441; Tire, punctureless pneumatic, C. P. Conrad, 557,531; Tires and covers for same, mould for making pneumatic, J. F. Ives, 557,128; Tires, probe for inserting patches in pneumatic, J. W. Mix, 557,213; Tires, woven fabric for wheel, J. Lyall, 557,409; Tongs, skeel, P. Boyd, 557,429; Traction engine, H. C. Hicks, 557,289; Trap for ice boxes, etc., Stockstrom & Curran, 557,449; Trolley, electric railway, H. A. Seymour, 557,442; Trolley pole support, N. H. Davis, 557,114; Trough, See Feed trough; Typewriter word register, C. O. Blandin, 557,474; Typewriting machine, G. B. Seiden, 557,239; Typewriting machine attachment, W. H. Hartwell, 557,203; Typograph, F. E. Bright, 557,184; Typograph, J. R. Rogers, 557,232; Valve, engineer's brake, G. Westinghouse, Jr., 557,463; Valve, gear, oscillating engine, Karick, Jr., & Walker, 557,228; Valve, vent, Meyerick & Wilson, 557,412; Valve, water pipe air, A. H. Schierholz, 557,348; Valves or safes, removable sill for, F. S. Holmes, 557,350; Vehicle guiding device, J. G. Alexander, 557,471; Velocipede, R. C. Hinks, 557,287; Vending machine, coin controlled, W. A. Ferrero, 557,308; Vending of newspapers, slot machine for automatic, J. A. Rule, 557,235; Vise, W. Thompson, 557,453; Vise, W. & W. A. Thompson, 557,452; Wagon bed hold, T. H. Tabor, 557,450; Wagon, Jack, B. E. Stevenson, 557,187; Wax expiring machine, A. Woodman, 557,498; Was board, D. R. Canny, 557,187; Washboard, H. J. Gilbert, 557,189; Washer, See Dish washer; Washing, scrubbing, and cleaning floors, machine, 557,377; Watch movement box, C. H. Smith, 557,444; Water bandage, W. H. Welch, 557,214; Weather strip, A. Thorn, 557,319; Weighing apparatus, proportional, E. A. Munson, 557,140; Weighing machine, M. Schloz et al., 557,423; Wheel, bicycle, R. Foster, H. C. & L. Bruner, 557,489; Wheel cleaner, T. C. Davison, 557,113; Wheel, See Bicycle wheel; Wheel rims, manufacture of, J. Drell, 557,196; Window, E. Gay, 557,276; Window fastener, J. Lowe, 557,134; Woodworking, etc., and apparatus for saturating, C. Howard, 557,271; Woodworking machine, combination, L. F. Parks, 557,222; Wrench, H. J. Martin, 557,311;

TRADE MARKS.

Table listing trade marks such as Antiseptic and germicidal preparation, F. W. R. Beckman, 28,047; Baking powder, Marshall-Kennedy Milling Company, 28,030; Beer, lager, John E. Wiesner & Son's Brewing Company of Baltimore City, 28,068; Bicycles, Grand Rapids Cycle Company, 28,061; Bicycles, Union Cycle Company, 28,062; Boots and shoes, Foster, H. C. & L. Bruner, 28,066; Brushes, tooth, nail, hair, mustache, artists', clothes and bath, R. V. Briesen, 28,069; Canned pineapple, J. S. Johnson Company, 28,029; Chemical preparation for removing scale from boilers and for neutralizing sea products and acids in feed water for same, E. P. B. Cigarettes and smoking tobacco, S. Schinasi, 28,033; Comb drops, C. E. Eberhardt, 28,061; Flour, wheat and self raising, Russell & Birkett, 28,031; Hair preserver and restorer, Miller & Johnson, 28,062; Ink, lithographic, Fuchs & Lang Manufacturing Company, 28,028; Leather made from hides or skins, Wilder & Company, 28,028; Matches, Delacamp & Company, 28,060; Meats, sugar cured, J. Vogel & Son, 28,032; Medicinal preparation for coughs, colds, and other affections of the lungs and respiratory organs, W. T. Owbridge, 28,046; Medicine, extracts and oils, certain named, A. H. Gottsball, 28,048; Oil, illuminating, Scofield, Shurmer & Teagle, 28,044; Paper, paper boxes, and paper bags, wrapping, Miller, Tompkins & Company, 28,027; Razors, C. F. Butcher, 28,050; Remedies for headache, catarrh, croup, colds, and similar affections, Coralline Company, 28,066; Remedies for headache, dyspepsia, rheumatism, and diseases of the blood, throat and lungs, J. L. Hoffman, 28,065; Remedies for headache, neuralgia and insomnia, J. A. W. Fernow, 28,064; Remedy for kidney diseases, A. D. Dimmick, 28,063; Rods, sheets, wire, plates, ingots and castings made from metallic alloys, Ansonia Brass and Copper Company, 28,027; Soap, bath and toilet, F. G. Burke, 28,040; Steamers, face, C. A. Butler, 28,043; Stencil dies for cutting and stamping, M. McNamara, 28,049; Stoves heating, Gem City Manufacturing Company, 28,054; Stoves, ranges, and their parts and attachments, Phillips & Clark Stove Company, 28,053; Velvetens and corduroys, A. Openheim, 28,058; Water closets, L. M. Rumsey Manufacturing Company, 28,055; Whisky, Freiberg & Workum, 28,036; Whisky, Mellwood Distillery Company, 28,037; Whisky, C. F. Moorman & Com any, 28,035; Whisky, T. Train & Company, 28,039; Wine, claret, J. M. Verkoole, 28,034;

DESIGNS.

Table listing designs such as Badge, A. Harrison, 25,304; Badge, J. A. Williams, 25,305; Bicycle fork crown, A. Bach, 25,335; Bicycle saddle, W. A. & M. H. Hulbert, 25,337; Button, J. M. Chaybrook, 25,336; Can, oil, F. S. Chase, 25,339; Case fabric, E. W. M. Terry, 25,340; Carpet, F. M. Parker, 25,345; Casket handle ear, E. Cleff, 25,307; Cereal cup, H. D. Perky, 25,318; Chaplet, F. Hohlreider, 25,303; Cigar boxes, ornamental print for, N. Witsch, 25,302; Clock iron, C. D. Craig, 25,328; Counter display, S. J. Sherer, 25,328; Curling iron holder, W. A. Dobson, 25,316; Diaper, lace, H. Horsefield, 25,344; Diaper, W. Green, 25,343; Dynamo case, C. E. Woods, 25,329; Fence pattern, wire, A. L. & D. M. Kitman, 25,323; Game board, I. Schulz, 25,311; Game board, E. P. Slocumb, 25,312; Index and card holder, F. A. Allen, 25,317; Kettle, water, A. R. Pritchard, 25,324; Key, W. H. Taylor, 25,329; Kitchen cabinet, C. Hooper, 25,326; Knife, table, C. Snow, 25,320; Mantel and hall rack, J. Hampson, Jr., 25,322; Mirror frame, A. Wanner, Jr., 25,314; Nail set, H. Neff, 25,308; Nail setting or nail, F. G. Caldwell, 25,319; Paving block, J. Schwechler, 25,334; Pedal shaft, C. H. Meta, 25,336; Pencil case body of back, W. A. Mathews, 25,315; Reflector for annular burners, J. Mitchell, 25,321; Scale frame, E. N. Gillilan, 25,327; Spoon holder, J. Young, 25,319; Stove door or panel, L. Kahn, 25,325; Tie, skylight, J. Mark, 25,331; Toy, H. S. Kerr, 25,310; Undershirt, J. M. Heyman, 25,242; Vehicle seat, W. A. Sayers, 25,339;

A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1863, will be furnished from this office for 25 cents. In ordering please state the name and number of the patent desired, and remit to Munn & Co., 361 Broadway, New York.