



(10) A. A. asks (1) the proper proportion for compounding sulphur and molasses, to be used as a blood purifier, and how it is to be taken? A. Take 2 teaspoonfuls of sulphur, and 1 of cream tartar, and mix with sufficient molasses, so that it will not be too stiff. It is taken in doses of a teaspoonful once or twice a day. 2. Which is the best known manner of purifying the blood? A. This depends upon so many conditions that it is best for you to consult a physician.

(11) J. B. desires a receipt for making a good ink used for shading, with three different sized shading pens. A. See the receipts given in the article on "Inks," in SCIENTIFIC AMERICAN SUPPLEMENT, No. 157.

(12) O. R. asks for a book from which he can learn how to stuff birds. See Brown's Practical Taxidermy, which we mail for \$2.50, or Batty's Practical Taxidermy and Home Decoration, \$1.50.

(13) C. H. D. asks how to make an article called razor paste. A. Emery reduced to an im, palpable powder 2 parts, spermaceti ointment 1 part, mix together and rub it over the strop. See Spon's "Workshop Receipts," first series, which we mail for \$2, for several similar recipes.

(14) C. L. L. desires a receipt for making the black cement or paste that is used for filling letters after they are cut out in brass. A. Mix asphaltum, brown japan, and lampblack into a putty like mass, fill in the spaces, and finally clean the edges with turpentine.

(15) T. M.—The paste mostly used in mounting photographs is nothing more than pure laundry starch mixed with cold water to moisten it, and thinned down to proper consistency with boiling water. If there are lumps, it should be strained through a fine cloth. Some add a little camphor to preserve it.

(16) C. A. R. asks if a thermo-electric pile can generate enough current to run a motor, and if so, how large one should be. A. A thermo-electric battery can be so used, but with very low efficiency. Its size would depend on the energy absorbed by the motor.

(17) S. L. S. asks: 1. About how long can a man live, without serious inconvenience, if placed inside a tight iron casing containing 100 cubic feet of air? A. A very few minutes would practically exhaust the air, for though it would take some time to breathe all of it, it would rapidly become so contaminated as to exercise a toxic and weakening effect. 2. Is there any simple means by which the air in such a casing can be kept pure enough, so that a man can live in it a longer time? A. Caustic soda or potash would absorb carbonic acid gas, and a well exposed solution of permanganate of potash or of bleaching powder would remove the organic impurities. Then a man could endure the confinement much longer. 3. What pressure per square inch is necessary to compress air to half its bulk? A. Double the atmospheric pressure, or fifteen pounds per square inch, by a pressure gauge set to zero in the atmosphere. 4. What pressure per square inch can a man endure and work in without injury? A. Three atmospheres, or thirty pounds to the square inch, plus the natural pressure, is pretty severe. It depends on the constitution.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

May 15, 1888,

AND EACH BEARING THAT DATE.

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

Table listing inventions such as Air brake, Air compressor, Alarm, Alarm clock, Alloy, Annunciator, Augers, Axle ends, Axle for vehicles, Axle, vehicle, Baby jumper, Bag, Baling press, Band cutter, Basket, Battery, Bedstead, Bicycle, Billiard cushion, Bituminous substances, Blackboard, Board, Boiler, Boiler feed indicator, Boiler feed pipe, Bolt, Bolt heading machine, Book cover, Boot or shoe, etc.

Table listing inventions such as Boot or shoe soles, Brick, Burglar alarm, Burner, Buttonhole opener, Button machine, Button or stud, Cable conduit, Cable splices, Camera, Can, Can cover, Car brake, Car coupling, Car door, Car, freight, Car heaters, Car heating and ventilating apparatus, Car mover, Car, railway, Car, stock, Car, stock, L. R. Stiles, Car vestibules, Cars, draw gear, Cars, folding step, Cars, over temporary obstructions, Carriage, Carriage curtain cord holder, Carrier, Cart, road, Cartridge loading apparatus, Case, Cash and parcel carrying apparatus, Cash indicator and register, Cash register and indicator, Casting metal mould, Cement pipes, Centrifugal machine, Chair, See Life preserving chair, Reclining chair, Chairs, table attachment, Check and pad protector, Check slips, Churn, T. J. Smith, Churn, cream testing, Churns, washing machines, Cistern cleaner, Clamp, Clasp, W. Bloomberg, Cleaner, Clipper, hair, Closet, Coal hod, Cock, J. A. Prout, Coffee mill, Coffins, Coins, Collar and cuff drier, Coloring matter, Colter, rolling, Composition of matter, Concentrator and amalgamator, Confectioner's mould, Conveyers, Copal, Corn husking implement, Cotton batting, Cough mixture, Coupling, Thill coupling, Crank pin, Crossing, acute curve, Cuff holder, Cultivator, Cultivator, grain drill, Curbing of artificial stone, Curtain fixture, Cushion, Cutter, Cutter bar, Directory indicator for buildings, Door hanger, Doweling machine, Draught regulator, Drier, Drill, Drill stock, Dyeing apparatus, Dyeing apparatus, U. Weldon, Electric cables, Electric indicator, Electric machines, Electric motor switch, Electric motors, Electric wires, Electrical agricultural system, Elevator, Elevator, E. J. Stellwagen, Elevator boot, Elevator lock, Embossing machine, Engine, Eraser, Eyeglasses, Eyeglasses, nose guard, Fabrics, Fan for cars, Fare boxes, Fare box, W. A. Crowder, Fare register, Farm gate, Faucets, Feed trough, Fence, J. Harris, Fence post, Fences, making combined wire and picket, File, bill, Filing case and drawer, Filter, automatic stationary water, Finger ring, Fire alarm, Fire extinguisher for railway cars, Fire extinguisher for stoves and heaters, Fire escape, ladder, Fireproof building, Flat iron heater, Flour bolt, Folding case, Folding table, Forging machine, Fruit picker, Fur animals, machine for pulling hair from skins, Furnace, Furnace blocks, Gauge, Galvanic battery, Gas burner, Gate, Gate, H. H. Sayre, Gate roller and hinge, Generator, Glove fastening, Glove fastening, Richardson & Chase, Governor for steam engines, Grain binder, Grain binder, H. E. Fridmore, Grain binder, J. F. Stewart, Grain heater, Grate, Gunpowder mill, Halter, Hame link, Handkerchief holder, Handling material, Hanger, Harness rosette attachment, Harrow, disk, Harvester, J. Shickle, Harvester and binder, Harvester, berry, Hats, caps, etc., Hay press, Head rest, Heater, Heel mould, Heel plate, Heeling machine, Hinge, Hoisting jack, Holder, Hopple, Horses, device for hitching, Horseshoe nails, Horseshoe nails, machine for making, Hose, tool for applying couplings, Hydrant, Hydrant, fire, Incubators, temperature regulator, Indicator, Induction coil, Inkstand, Inkstand, J. F. E. O'Connor, Insulated wire, Jack, See Hoisting jack, Lifting jack, Wagon jack, Joint, Journal box, Key fastener, Keys, manufacture of door, Ladder, extension, Lamp, Babbitt & Beach, Lamp attachment, incandescent, Lamp, coach, Lamps, manufacture of incandescent electric, Lantern, Lasting tool, Lathe, polishing, Lathetool, Lemon squeezer, Life-preserving chair, Lifter, Lifting jack, Lifting jack, J. Weathers, Lint collecting and compacting apparatus, Lock, Lock for bags or satchels, Loom, needle, Loom shuttle motion, Loom shuttle relief mechanism, Lubricator, Lubricator, T. J. 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Bowman, Printing machines, inking apparatus, Projectiles, Projectile, Wolfram, Mieg & Bischoff, Protector, Pulp or paper mills, Pump, hydraulic air, Pumps, apparatus for operating oil well, Punch, compound lever, Punching machines, blank holder for, Rail, double grooved girder, Rail, grooved girder, Rail joint, Railway, electric, Railway grip, cable, Railway rail pad, Railway signal, Railway tie, metallic, Ratchet movement, Reclining chair, Refrigerator, Register, Register, See Cash register, Fare register, Regulator, Reheating furnace, Rein fastener, safety, Rice separator, Ring, See Finger ring, Open ring, Road, apparatus for recording the direction and gradients of, Rock drill, Rock drilling machine, Rock drilling machine tripod, Rodents, implement for exterminating, Rods and tubes, machine for drawing, Rods, machine for forming eyes on, Rolling mills, feeding appliance for, Rolls, appliance for, Rolls, housing cap for, Rovings, machine for making heavy, Saddle trees, press for forming leather, Safe lock, Sail grommet, Sail grommets, etc., Sawing machine, Scaffold for wooden buildings, Scale for liquids, automatic weighing, Scissors, buttonhole, Scraper, road, Screw cutting die, Separator, Sewing machine, Sewing machine, buttonhole, Sewing tool, Shade fixture, window, Shade, window, Shaft coupling, Sheet metal, die for shaping, Ship's log, Shoe, H. Witzel, Shutter, adjustable, Signal, See Railway signal, Sleigh, bob, Slip and shrinkage gauge, Sofa and bed, combined extensible, Sound, producing records of, Spark arrester, Spinning spindle support, Spinning spindle support, Spring tooth, Stain or paint, Stalls for separating horses on race tracks, Stamps, device for holding and moistening postage, Stamps, pocket box for postage, Steam generator, Steam generator, W. Schmidt, Steering apparatus for vessels, Stirrup, Stool, H. C. Sittig, Storage battery, Stove, heating, Stove or range, Supporter, Suspend attachment, Sweat pad, C. J. Gustaveson, Sweat pad, O. P. Howe, Switch board, C. E. Scribner, Table, See Folding table, Table leaf support, etc.

Table listing inventions such as Muclage can, Music box, Music chart, Musical wind instrument, Nail, Nails, tacks, etc., Napkin supporter, Nose rings, Nut lock, Open ring, Ore concentrator, Organ stop action, Pad, Paper bags, Paper fastener, Paper receptacle, Pavement, Pea shelling machine, Photographic and other lenses, diaphragm and shutter for, Photographic camera, Picture and mirror backs, board for, Pin, Pipe, Pipe wrench, Planter, Pliers, Plow, Plow, sulky, Flowing apparatus, Pocketbook fastener, Post, Post holes, device for making, Powder and shot cabinet, Power transmitter, Press, Printing film, Printing machine, Printing machines, inking apparatus, Projectiles, Projectile, Protector, Pulp or paper mills, Pump, Pumps, apparatus for operating oil well, Punch, Punching machines, blank holder for, Rail, Rail, double grooved girder, Rail, grooved girder, Rail joint, Railway, Railway, electric, Railway grip, cable, Railway rail pad, Railway signal, Railway tie, metallic, Ratchet movement, Reclining chair, Refrigerator, Register, Register, Regulator, Reheating furnace, Rein fastener, Rice separator, Ring, Road, apparatus for recording the direction and gradients of, Rock drill, Rock drilling machine, Rock drilling machine tripod, Rodents, Rods and tubes, machine for drawing, Rods, machine for forming eyes on, Rolling mills, Rolls, appliance for, Rolls, housing cap for, Rovings, Saddle trees, Safe lock, Sail grommet, Sail grommets, etc., Sawing machine, Scaffold for wooden buildings, Scale for liquids, Scissors, Scraper, Screw cutting die, Separator, Sewing machine, Sewing machine, buttonhole, Sewing tool, Shade fixture, window, Shade, window, Shaft coupling, Sheet metal, Ship's log, Shoe, Shutter, Signal, Sleigh, Slip and shrinkage gauge, Sofa and bed, Sound, Spark arrester, Spinning spindle support, Spinning spindle support, Spring tooth, Stain or paint, Stalls for separating horses on race tracks, Stamps, Steam generator, Steam generator, Steering apparatus for vessels, Stirrup, Stool, Storage battery, Stove, Stove or range, Supporter, Suspend attachment, Sweat pad, Sweat pad, Switch board, Table, Table leaf support, etc.

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