

[OFFICIAL]

INDEX OF INVENTIONS

FOR WHICH Letters Patent of the United States were Granted in the Week Ending, April 25, 1876, AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

A complete copy of any patent in the annexed list including both the specifications and drawings, will be furnished from this office for one dollar. In ordering, please state the number and date of the patent desired and remit to Munn & Co., 37 Park Row, New York city

Table listing various inventions such as Addressing machine, Advertising card, Auger for boring rock, Awl haft, Axle thimble, Bag filler, Baggage check, Bale ties, Barrel pitting, Basin or sink plug, Bedstead, Belt tightener, Binder, temporary, Blind, temporary, Blinds, folder, Boats, holder for life, Boiler, agricultural, Bolt, feed water heater, Boiler, hot water, Boiler, wash, M. Balue, Bolters, feed pump for steam, Books, construction of, Boot and shoe heel, Boot heel stiffeners, Bottle cover, Boxes, manufacture of, Bread, making, Brick machine, Broiler, Brush, Buckle, Button, Camera, outlying, Camera, stand tripod head, Can, safety filling, Capstan and windlass, Car axle box packing, Car axle grease box, Car coupling, Car coupling, J. J. Lahave, Car coupling, Langley et al., Car coupling, E. Russell, Car coupling, J. Wagner, Car, refrigerator, Car starter, Car surface condenser, Carpet beater, Carriage stand die, Cart, coal, Castings, scrap metal for, Chair, barber's, Chair seat, W. Schnabel, Chair, tilting, Church pews, end of, Churn, E. C. Bissel, Churn, H. B. Ramsey, Churn, power, W. Vanurder, Cigar pouch, C. Bondy, Clothes dryer, Coffin attachment, Commode, child's, Cooker, steam, Cooler or warmer, Milk, Bunnell et al., Cork extractor, Corset, Cot, fever, Cotton cleaner, Cotton gin feeder, Coupon cutter, Cultivator, Cultivator, J. L. McCulloch, Cultivator, F. W. Stollberg, Cultivator and subsoiler, Curtain fixtures, E. M. Judd, Curtain fixtures, E. B. Lake, Dental drill, A. W. Todd, Deodorizer, Digger, potato, Dish cleaner, Ditching machine, Door check, Dress goods, exhibiting, Drill, ratchet, J. Renshaw, Drying apparatus, Eggs, preserving, Engine governors, Engine, rotary, J. M. Gardner, Engine, rotary, T. C. Orr, Engine, rotary, J. R. Peters, Engine slide valves, setting out, Envelope, E. W. Thomas, Eyelet stock, Fabrics, making wovens, Fan, automatic, Fan, automatic, Gollner & Fretz, Farebox, Fare register, Fence, A. P. Galnes, Fence post metallic socket, Fence wire, barbed, Fence wire, barbed, P. Wineman, Fender, Fertilizer, desiccator, Filter, J. W. Lefferts, Filter and cleaning filters, H. Williams, Filter, water, H. J. Burke, Fire arm, revolving, Fire extinguisher, Fire kindler, Fire kindler, J. B. Sweetland, Fork, horse hay, Fountain, Hornbake & Wilkins, Fruit dryer, Furnace, etc., smoke-consuming, Furnace, steam house, Furniture, school, G. H. Grant, Furniture, school, W. F. Spencer, Furniture tip, Game counter, Gas carbureter, Gas engine.

Table listing various inventions such as Gas generator, Gas, making, W. H. Tupper, Gas, making, F. H. Elchbaum, Gas stove, E. J. Caldwell, Gate, H. P. Haskin, Glass blow pipe, cleaning, Governor, indirect acting, Grain binder, Grain calculator, Grain cap, Grain, treating, Grate, F. Z. Hickox, Grate, J. H. Mearns, Grate, W. S. Stevenson, Hame fastener, Harrow, G. B. Gable, Harrow, W. Taylor, Harvester, Turner et al., Hat box and valise, Hawse pipe, Heat-extracting apparatus, Heater, fireplace, Hinge for gates, Hogs, ringing, Hoops, bending, Horse power, Ice plow, Insole, Kiln, brick, Kite, folding, Knitting machine, embroidery, Lamp attachment, Lampblack scrapers, Lamp chimneys, Lamp extinguisher, Lamp collar, Lamp, miner's, Lamp stove, Barnes & Irving, Lamp stove, T. S. Marshall, Lasts, block lock for, Laths, punching metal, Leather, dressing, Leather, removing grease from, Leather, splitting, Lock and door bell, alarm, Lock nut, Lock, time, Locomotive, Locomotive bogie truck, Loom shed mechanism, Lubricator, Lumber-edging machine, Mail bag, Mail tag, Mast hoops and sails, Meat, preserving, Merry-go-round, Mill, grinding, Mining machine, Mop and brush holder, Motor for tramways, Muff, O. Kaehler, Neektie, Nut lock, Organ, reed, Organs, pneumatic action for, Packing, metallic, Packing, piston, A. Hendee, Padlock, Paper bag, Paper chafins and rings, Paper fastener, Paper, treating carpet-lining, Pavement, J. R. Abrams, Pavement, W. H. Gallick, Pavement, J. B. Wood, Pavement surface course, Photographs for coloring, Piano lock, Pile remedy, Pipe, smoking, Planing machine, Planter, corn, Plow, A. G. W. Foster, Plow, S. B. Ward, Plow, G. & T. Ward, Plow, side hill, Plow, sulky, Pouch book clasp, Pouch book clasp, Blank & Schimper, Post office letter box, Power, spring, Double & Godley, Power, spring, F. F. Godley, Press, fruit and jelly, Press, hay, Printing circular fabrics, Printing press, Proof staff, Propellers, raising and lowering, Pump, D. O. Holman, Pump bucket, chain, Pump stocks, making pipe for, Pumping apparatus, W. Couts, Puzzle block, Railway switch, self-locking, Refrigerator, H. G. Plumb, Regulator, water pressure, Reel, driving, Roof, M. A. Shepard, Roofing compound, Roofing and grinding bark, Sash and screen holder, Sash fastener, Saw handle, Sawmills, roller gate for, Sawing machine guide, Sawing machine, wood, Scales, platform, Scissors, J. Does, Scraper, P. Coupal, Screw-cutting die stock, Seed dropper, Seeding machine, Sewers, valve for, Sewing machine, Sewing machines, operating, Sewing machine spring power, Sewing machine controller, Sewing machine treadle, Shears, H. Dornburgh, Shelf, hanging, Ships' bottoms, cleansing, Ship's log, Shovel block die, Sidewalk, asphalt, Steve, grain and seed, Smut machine, Spark arrester, Spectacles, P. Hannay, Spinning frame, Steamer, culinary.

Table listing various inventions such as Stock shed and wind screen, Stone-dressing machine, Stone lifter, Stone, artificial, Stone, artificial, J. L. Rowland, Stove, C. Baldwin, Stove for burning oil, Stove, gas, Stove lamp, Barnes & Irving, Stove lamp, T. S. Marshall, Stove, magazine, Stove pipe damper, Stove, reservoir cooking, Street sweeper, Sun shade, Swimming apparatus, Syringe, vaginal, Table, ironing, Table, kitchen, Table, laboratory, Tank, oil, Munger & Yates, Tanning process, Tea and coffee pot, Teaching music, Thill coupling, Thrashing machine, Tobacco machine, plug, Tobacco stems, preparing, Toilet stand, Toy watch, Trace carrier, Trap, animal, Tree protector, Truck, hand, Trunk, A. Romadka, Tube coupling, S. P. M. Tasker, Tumbler holder, Type writer, Penning, Umbrella, F. Liller, Umbrella runner, Vaccine case, Vehicle seat lock, Vehicle spring check brace, Vise, engraver's, Wagon body, folding, Wagon brake, Wagon lock, Wagon seat lock, Hill & Stephenson, Wagon, side bar, Wash board, Wash tub, Washing machine, A. H. Calkins, Washing machine, C. A. Daniels, Washing machine, S. Turner, Sr., Watchmaker's lathe, Water spout cut-off, Well, tube, S. Henry, Wheelbarrow, Whiffletree and neck yoke, Windmill, G. A. Myers, Windmill, J. C. Sparks, Window, N. A. Julien.

DESIGNS PATENTED.

Table listing various designs such as 9,236.—Cook stove, 9,237.—Monument, 9,238.—Carpets, 9,239.—Badge, 9,240.—Badge, 9,241.—Badge, 9,242.—Stove, 9,243.—Chair, 9,244.—Jewelry, 9,245.—Medallion, 9,246.—Lamp chimneys, 9,247.—Chair, 9,248, 9,249.—Bas-reliefs, 9,250.—Toy piano.

SCHEDULE OF PATENT FEES.

Table listing various patent fees such as On each caveat, On each Trade mark, On filing each application for a Patent (17 years), On issuing each original Patent, On appeal to Examiners-in-Chief, On appeal to Commissioner of Patents, On application for Reissue, On filing a Disclaimer, On an application for Design (3 1/2 years), On application for Design (7 years), On application for Design (14 years).

Advertisements.

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(76) F. E. K. says: We have two new boilers that have never been tested. Their dimensions are: Length, 22 feet, diameter 44 inches, thickness of shell 3/8, of heads 1/4 inch, with two 16 inch flues. The heads are stayed with 5 stay rods and 20 stay bolts. They are built of C. H. No. 1 iron. There is one 4 inch safety valve for the two boilers. What is the greatest pressure at which it would be safe to run them? A. From 50 to 60 lbs.

(77) H. K. says, in reply to I. F. F., who asked which is the deepest well in the world: I believe the well at the St. Louis county insane asylum is, being 3,337 feet deep. At the depth of 3,545 feet the thermometer stood at 115° Fah.

(78) J. R. F. says, in reply to J. J., who asked how much the outside horse will gain in plowing a circular field, beginning at the center: Let d=distance between horses, r=radius of circle plowed by inside horse, and n=number of times they plow around. Then, while the inside horse is plowing around a circle with a radius, r, the outside horse is plowing round a circle with a radius r+d, and the distances traveled by each respectively are 2πr and 2π(r+d), and the difference is 2πd. The total difference, for n times around, is n d 2π. The inside horse in the second time around travels in the track of the outside horse the first time, and so on for each succeeding time until the last time around, when the outside horse makes a track of the radius r+n d, which the inside horse does not travel; neither does the outside horse travel in the track of the radius r, made by the inside horse in the first time around. Hence the difference in the distance traveled is (r+n d)2π-r=2π =n d 2π, the same as above. This, it will be observed, is simply the difference between the distance which the inside horse travels the first time around and that which the outside horse travels the last time around.

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined, with the results stated:

H. A. W.—We do not think that you would succeed in the artificial production of the mineral, even if you had the exact composition. Send us a specimen, and we will examine it for you.—C. J. J.—Send us a sample of the tin powder used in electrolysis.—W. C. S.—They are scales of decomposed mica with oxide of iron.—Rev. J. McC.—The bolt does not appear to be well made, nor of superior iron.—L. L.—It is black oxide of manganese, containing copper.—J. M. G.—It contains silic, alumina, oxide of iron, and carbonate of soda, carbonate of lime, and carbonate of magnesia.—W. M. T.—It is sulphide of iron.—E. P. C.—It is iron pyrites.—W. W. J.—It is difficult to say, without making a lengthy chemical analysis, why you cannot harden your steel.—J. W. F.—It is white iron pyrites.—F. W. B.—It is a coating of oxide of zinc. It does not injure the zinc, but rather tends to protect it from further action. If you desire, you can coat the interior of the refrigerator with paraffin.—W. B.—They are well crystallized sulphate of lime or gypsum. They are sometimes found 10 times as large as those sent, and as limpid as pure water. Have you found any such?—R. D. B.—We are unable to account for the scaling. The metal appears tough, close grained, and bright as though it had been rolled cold.—J. W. F.—No. 1 is red oxide of iron, with silicate of alumina. No. 2 is silic with black oxide of iron.—W. T. C.—No. 1 is the sulphate of baryta. No. 2: The powdered mineral contains the carbonates of lime, magnesia, and iron, with some silicates of alumina and silic.—J. E. L.—We did not detect arsenic.—T. S. L. G.—We could not detect gold in specimen sent. It was mostly iron pyrites.

J. B. F. asks: What horse power does it take to run a 3 foot corn burr and sheller?—W. E. T. asks: How can bear grass be prepared for market?—E. P. W. asks: What is a cheap material for small balloons, from 1 foot to 10 feet in diameter? Could tissue paper be made to answer by covering it with balloon varnish or some other preparation?

COMMUNICATIONS RECEIVED.

The Editor of the SCIENTIFIC AMERICAN acknowledges, with much pleasure, the receipt of original papers and contributions upon the following subjects:

- On a Remarkable Cloud. By J. P. N.
On Sunday at the Centennial. By J. E. F.
On the Imponderables. By W. T. Q.
On Sugar. By ———.

Also inquiries and answers from the following: J. McM.—G. W. W.—L. S. W.—P. F. S.—A. B. L.—R. J. McC.—B. B.—L. C. C.—T. C.—J. B. S.—A. McG.—H. B.—C. L.—A. L. S.—J. H.—B. H.—C. W.—J. H.—J. B.—T. G.—P. H. J.—R. C.—B. W. J.—D. J. S.—H. M. H.—J. M. H.—J. E. B.—H. D. W.—B. A. J.—B. H. P.—F.—B. H. C.—S. N. M.—U. V. W.

HINTS TO CORRESPONDENTS.

Correspondents whose inquiries fail to appear should repeat them. If not then published, they may conclude that, for good reasons, the Editor declines them. The address of the writer should always be given. Enquiries relating to patents, or to the patentability of inventions, assignments, etc., will not be published here. All such questions, when initials only are given, are thrown into the waste basket, as it would fill half of our paper to print them all; but we generally take pleasure in answering briefly by mail, if the writer's address is given. Hundreds of inquiries analogous to the following are sent: "Who makes distilling apparatus? Who makes flax-cleaning machinery? Who makes an electricity-lighted student's lamp? Who publishes engravings of low pressure beam engines? Who sells the best tin roofing plates?" All such personal inquiries are printed, as will be observed, in the column of "Business and Personal," which is specially set apart for that purpose, subject to the charge mentioned at the head of that column. Almost any desired information can in this way be expeditiously obtained.