

(30) S. A. S. asks: How can I clean rust from the iron plates of a hydraulic press...

(31) S. E. W. asks (1) if lump lime will slake in oil. I want it for painting a large ice house...

(32) M. B. S. B. writes: My engine cylinder is 3 1/2 inches long by 1 1/2 inches in diameter...

(33) E. A. D. P. asks: 1. What is meant by aperture? Is it the diameter of the object glass...

(34) L. P. B. writes: I desire to send a stream of oxygen through water. Please inform me how I may do the same?

(35) C. R. M. writes: I have an 80 horse power boiler, carrying 65 lb. of steam, runs a 65 horse engine...

(36) A. P. asks: 1. What tension will 1/2 inch boiler stand? A. It depends upon the diameter of the boiler...

(37) F. W. D. asks how photographers prevent the disagreeable odor from collodion, etc., from becoming prominent?

(38) M. E. H. asks for the process of treating ships' sails so as to preserve them from mildew and decay.

(39) H. K. & J. O. B.—Ordinary so called washing fluid is prepared by warming together one part of washing soda...

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

N. B.—No. 1, feldspathic rock containing crystals of hornblende. No. 2, mica schist. Nos. 3 and 4, hornblende schist.

[OFFICIAL.]

INDEX OF INVENTIONS

FOR WHICH Letters Patent of the United States were Granted in the Week Ending November 25, 1879, 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, or any patent issued since 1867, will be furnished from this office for one dollar.

Air compressor, J. Clayton 222,014 Air or vacuum railway brakes, diaphragm for, B. L. Stowe 221,980 Amalgamating apparatus, vacuum, J. Absterdam 221,990 Amalgamating pans, device for discharging, E. Coleman 222,018

Table listing various inventions and their patent numbers, including Amalgamating pan, Auger, Axle, Bale tie, Bale ties, Bag fastener, Barrel safety attachment, Barrels, Bead, Beehive, Bell, Berth, Billiard cue, Binder, Bolt, Bolting cloth, Book, Booms, Boot, Boring tool, Bottle, Box heads, Bracelet, Brick-off bearing case, Bricks, Brush, Car, Car seat, Cars, Carburizer, Carriage, Carriage capping implement, Carriage loading apparatus, Castings, Cattle chute, Cement, Children's chairs, Chuck, Churn, Cigar lighter, Clasp, Clothes line hook, Clothes pounder, Clutch and coupling, Collars, Cooker, Corset, Cotton and hay press, Coupling, Cupola furnace, Currycomb, Dental engine, Dentist's chair, Dish washing machine, Ditching machine, Draught equalizer, Drawing table, Drays, Electric light apparatus, Electrotype dies, End gate fastening, Fan, Fence wire stretcher, Firearm, Firearm magazine, Firearm, revolving, Fire kindlers and lighters, Fish boner and scaler, Furnace door, Furnaces and stoves, Gas apparatus, Gas fixing retorts, Gas governor, Gleaning and grain binding machine, Gold from auriferous deposits, Grain binder, Grain binder knotting apparatus, Grain drill, Grate, Gun, Gun magazine, Hame fastener, Hammock support, Harness, Hat stizing machine, Hay rake, Hinge, Hinge spring, Hoe, Hoe and cultivator, Horses, Hub, vehicle wheel, Hydraulic elevator, Inkstand, Jacket can, Jointer and cutter, Knob attachment, Lance, Mallet, Meat chopper, Mechanical movement, Medical compound, Millstone supporter and driver, Mosquito net, Musical instrument mechanical, Oil cup, Packing device, Packing steam, Painting fence wire, Painting pipes and tubes, Paper collar machine, Paper pulp from wood, Pavement, Pavement, street, Pedometer, Pen, Pen fountain, Pharmaceutical apparatus, Photo-negative engraving, Pipe, machine for the manufacture of spiral jointed, Planter and fertilizer distributor, combined seed, Planter, J. A. Hill, Planter, J. G. D. Haworth, Planter, corn, J. H. Warfield, Planter, hand corn, E. Putnam, Planter, seed, B. Richardson, Plow, R. Adamson, Plow, C. A. Pratt, Plow, J. S. & E. C. Robinson, Pocket, safety, L. Jakubowski, Portable bath close, M. J. Dexter, Pressure generator, hydrocarbon, H. H. Eames, Printing machine, chromatic, J. McNaught, Pump, A. W. Woodward, Pumping system, atmospheric, W. P. Barclay, Ratchet wrench, J. Woolford, Refrigerator and water cooler, combined, M. E. Titman, Rein holding device, A. Warth, Rowlock, T. Dowling, Sae iron, G. Petit, Sash fastener, R. Lee, Sash holder, Leguay & Valotton, Sample box, F. F. Atkinson, Saw machine, drag, W. N. Kyle, Sawing machine, drag, Thompson & Gray, Sawing trees, machine for, N. A. Daniels, Scarf shield, C. E. Foster, Screw driver, C. S. Wells, Screw, Jack, R. Fjellman, Screw machines, extractor for metal, H. S. Lansell, Sewing machine button hole attachment, J. F. Smedley, Shoe, F. S. Stark, Shoe horn, M. F. Couss, Show case, H. G. Derr, Jr., Slate, M. F. Sullivan, Sled, J. H. Dennis, Sleigh, bob, G. Hermance, Snow plow and brush, combined, P. Graf, Soldering machine, G. Browne, Spoons, making plated, Fowler & Holmes (r), Spring clasp for braids and ribbon packages, H. Wolcott, Stamp canceler, J. A. Mc Lelland, Staples, apparatus for inserting, bending, and clinching metallic, J. Shellenberger, Stave cutting machine, W. Sisson, Steam and water gauge, T. Holland, Steamer, feed, W. Collings, Sugar, etc., centrifugal apparatus for forcing volatile or corrosive liquids through or from, O. H. Krause, Sulphocyanides, apparatus for making, Tcherniac & Gunzburg, Target, surveyor's, S. Haslett, Telephone, T. A. Edison, Thill coupling, W. M. Curry, Ticket box, Sergeant & Porter, Tiles for roofs and pavements, illuminating, J. Jacobs, Tile machine attachment, P. Ozmann, Time lock, S. Shaw, Tobacco chopper, E. Hain, Tobacco, manufacture of plug, P. J. Sorg, Tomb, McMinn & Filbey, Toy money box, C. B. Bailey, Toy money box, L. Kyser, Trace carrier, A. F. Hill, Trees for winter protection, machine for preparing the tops of, S. H. N. F. & L. Murray, Truss, G. Gleim, Tuiyere, J. F. Hauase, Umbrella frame, J. Miniere, Vacuum brake pipe coupling, T. W. Welsh, Vacuum engine, B. Goemann, Vapor burner, E. F. Rogers, Valve, slide, E. S. Chapell, Valve, steam engine slide, E. S. Chapell, Vehicle spring, J. Krehbiel, Velocipede, P. Denham, Velocipede, H. Hassenpflug, Vessels, air port for, T. D. Wilson, Water closet valve mechanism, W. M. & J. Smeaton, Weather strip, W. St. Charles, Weed turner, J. D. Cates, Wells, clamp for elevating tubing in oil, G. W. Fair, Wheel, H. B. Myers, Windows, portable decorative balcony for, Brumwood & Goldberg, Wood, grinding, S. M. Allen, Wool press, Willis & Funkhouser, Yoke and bow, ox, M. Cantoni

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DESIGNS. Coffin plates, E. H. & J. H. Eldridge 11,526 Heating stoves, E. Bussey 11,525 Ladies' and children's hoods, S. M. Hodge 11,527 Trunk fixtures, C. A. Taylor 11,523, 11,534

English Patents Issued to Americans. From November 18 to November 25, inclusive. Curtain roller, H. L. Judd, Brooklyn, N. Y. Fountain pen, A. T. Cross, Providence, R. I. Money receiver, apparatus for preventing fraud in, G. Beadle, Syracuse, N. Y. Steam engine, W. F. Goodwin, Stelton, N. J. Sulphate of lime, manufacture of, Z. C. Warren, New York city. Tramways, A. S. Halladie, San Francisco, Cal.

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