

(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. Abster 221,990 Amalgamating pans, device for discharging, E. Coleman 222,018

Table listing various inventions and their patent numbers, including items like Amalgamating pan, Auger, Axle, Bale tie, Bag fastener, Barrel safety attachment, Barrels, rack for tiering, Bead, invalid, Beehive, Bell, call, Berth for vessels, Billiard cue cutter, Binder, temporary, Bolt drawing machine, Bolting cloth, Book, E. S. Glover, Booms, device for raising and lowering, Boot and shoe heel burnishing machine, Boot and shoe sole edge burnisher, Boring tool, Bottle, nursing, Michales & Bal, Box heads, machine for finishing, Bracelet, A. W. Magerhaus, Brick-off bearing case, Bricks for constructing sidings, partition walls, etc., I. Marsh, Brush, C. L. Pond, Brush for washing carriages, etc., A. T. Gerike, Buckle, G. G. Bugbee, Buckle and trace carrier, combined, T. L. Wiswell, Bung, W. H. Stewart, Burr holder and spirit lamp, combined, T. S. Waters, Button hole cutter, M. L. & G. M. Sanborn, Calendering paper, etc., machine for, Schlatter & Gros, Calisthenic motor, A. S. Gear, Car door, grain, W. I. Stratiff, Car seat, E. Chesterman, Cars, cooling and ventilating, W. P. Williamson, Carbureter, J. Wayland, Care, visiting, F. Oechsli, Carpet linings and similar fabrics, machine for making, J. C. Gray, Carriage top, J. N. Hazelip, Carriage capping implement, G. A. Barnes, Carriage loading apparatus, J. H. Murray, Castings, malleable iron, J. E. Atwood, Cattle chute, J. T. & R. A. McCoy, Cement, manufacture of artificial hydraulic or Portland, C. Brown, Children's chairs, locking device for the tables of, N. Bartell, Chuck, G. B. Kirkham, Churn operating machinery, W. N. Rhoades, Cigar lighter, automatic, C. Crook, Clasp, C. E. Johnson, Clothes line hook, F. G. Stemmer, Clothes pounder, W. F. Jenkins, Clutch and coupling, friction, E. L. Hartmann, Collars and cuffs, making celluloid, A. A. Sanborn, Cooker, steam feed, W. Collings, Corset, Schilling & Florshiem, Cotton and hay press, H. C. Green, Coupling, D. W. Clark, Cupola furnace, E. C. Atkins, Currycomb, E. Harris, Dental engine, E. T. Starr, Dentist's chair, E. T. Starr, Dish washing machine, S. Walker, Ditching machine, J. D. Comstock, Draught equalizer, R. A. Thompson, Drawing table, W. Holden, Drays, tail pin for, H. R. Atwood, Electric light apparatus, A. G. Holcombe, Electrotype dies, making, Tufts & Andrews, End gate fastening, wagon, L. Talcott, Fan, air compressing, M. B. Miller, Fence wire stretcher, Clark & Orris, Firearm, magazine, A. Burgess, Firearm, magazine, J. M. Marlin, Firearm, revolving, J. M. Marlin, Fire kindlers and lighters, composition for, E. Clark, Fish boner and scaler, A. J. Whitney, Furnace door, L. McKelvey, Furnaces and stoves, draught regulator for, G. O. Sanderson, Garment supporter, H. P. Andrews, Gas apparatus, vapor, J. Savage, Gas fixing retorts, heating benches of, T. E. Rowland, Gas governor, G. S. Woodruff, Gleaning and grain binding machine, M. A. Keller, Gold from auriferous deposits, machine for extracting, E. S. Bennett, Grain binder, S. D. Locke, Grain binder knotting apparatus, M. A. Keller, Grain drill, M. G. Mason, Grate, D. Richmond, Gun, magazine, F. Y. Sunderland, Hame fastener, J. P. Bell, Hammock support, V. P. Travers, Harness, instrument for mending, C. P. Adams, Hat sizing machine, E. Beesley, Hay rake, horse, S. Ritty, Hinge, P. Hurm, Hinge, spring, G. M. Jewett, Hoe, G. W. Cloyd, Hoe and cultivator, combined horse, B. B. Small, Horses, device for stopping, I. J. Warner, Hub, vehicle wheel, S. P. Ruggles, Hydraulic elevator, S. C. Rowell, Inkstand, A. D. Judd, Jacket can, Mason & Bergman, Jointer and cutter, combined, H. E. Wisner, Knob attachment, O. Stoddard, Lance, bomb, J. A. Brand, Mallet, A. G. McComb, Meat chopper, mince and sausage, J. I. Rough, Mechanical movement, Z. Beaudry, Medical compound, G. Collins, Millstone supporter and driver, O. J. Bollinger, Mosquito net, etc., apparatus for stretching and dressing, I. E. Palmer, Musical instrument mechanical, M. Gally, Oil cup, J. G. McBride, Packing device for packing boxes, etc., A. D. Spencer, Packing, steam, G. C. Phillips, Painting fence wire, apparatus for, F. C. Taylor, Painting pipes and tubes, apparatus for, J. B. Root, Paper collar machine, C. H. Denison, Paper pulp from wood, making, S. M. Allen, Pavement, concrete, C. M. Warren, Pavement, street, E. Devilliers, Pedomotor, R. Gornall, Pen, fountain, J. S. Bard, Pharmaceutical apparatus, J. T. West, Photo-negative engraving, Bachman & Peckinpaugh, Pipe, machine for the manufacture of spiral jointed, J. B. Root, Planter and fertilizer distributor, combined seed, 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. Pettit, 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, 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. Haue, 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. Krebiel, 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, DESIGNS. Coffin plates, E. H. & J. H. Eldridge, Heating stoves, E. Bussey, Ladies' and children's hoods, S. M. Hodge, Trunk fixtures, C. A. Taylor, 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. 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