

(23) M. R. asks: Which of two engines will give most power...

(24) D. M. S. asks: What is proper size for steam pipe leading from boiler with 90 lb. steam...

(25) H. S. M. writes: 1. Suppose a gun barrel doubled in length without breech pin...

(26) C. B. W. asks how the oxychloride of zinc cement is mixed by dentists...

(27) C. B. asks: How can I prepare gum dextrine? A. Crushed malt, 1 lb.; warm water, 2 gallons...

(28) E. R. H. asks: 1. What can I use with sand and silicate of soda to make the latter water-proof...

(29) I. H. P. writes: I have now on hand a lot of sumac leaves gathered in July and August...

(30) P. W. asks how to get the rust off my hand, made by cast iron? Am at present using pumice stone...

(31) J. S. asks how to mould sealing wax. A. The moulds usually employed are of heavy iron...

(32) E. A. H. asks: To what extent can blocks of wood of about 2 inches in thickness be rendered fireproof?

(33) J. J. W. asks (1) how much water and weight of quicklime to make cream of lime. A. One of lime to thirty or forty of water.

water. Must be determined by chemical analysis, a no two waters are alike in this respect.

(34) S. S. K. asks a recipe for an amber varnish, suitable for varnishing a new violin. A. Fuse 6 lb. very pale clear amber in the gum pot...

(35) S. R. asks how the pulp is obtained from sawdust, straw, or rags, of which water pails are manufactured...

(36) D. M. T. writes: I have some trouble with nickel plated cast iron rusting through being exposed to a moist atmosphere.

(37) M. S. O. writes: Having read a description of a home-made horse power in SUPPLEMENT, No. 190, I would like to ask some questions...

(38) N. G. B. writes: I frequently have occasion to change the marks and brands on oak barrels that have been stained to give them the appearance of age.

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

G. M. W.—a, Powdered feldspar not kaolin. b and c, Partly decomposed mica schist. d, Clay slate. There is no such substance as that you mention.

[OFFICIAL.]

INDEX OF INVENTIONS FOR WHICH Letters Patent of the United States were Granted in the Week Ending October 26, 1880, AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

A printed copy of the specification and drawing of any patent in the annexed list, also of any patent issued since 1866, will be furnished from this office for one dollar.

Table of inventions including Animal trap, Axle railway car, Baling cotton, Baling press, Barge grain, Basins, etc., device for cleaning overflows of wash, Bell, letter box, C. Hermann, Bicycle, H. W. Britton, Bolts and rivets, machine for making, J. Morgan, Book binder's press, J. W. Jones, Book binding, L. Finger, Bottle stopper, D. S. Paisley, Bridle, D. Wagner, Bulk, machine for handling articles in, F. Imhorst, Bung and faucet, F. Engelken, Bung bushing, W. G. Pennypacker, Can opener, Snow & Coe, Cane top and match safe, combined, L. Hellman, Car, cattle, I. M. Lincoln, Car door fastening, freight, H. A. Towne, Car, stock, J. Montgomery, Car wheel, J. Rigby, Carbon bisulphide and sulphuric acid from pyrites and apparatus therefor, manufacture of, E. C. E. & L. L. Labois, Carpet sweeper, M. R. Bissell, Carriage, baby, C. M. Hubbard, Carriage spring, S. W. Cately, Carriage top support, P. B. Collins, Casting box, stereotype, W. E. Gump, Casting printer's leads, machine for, J. Fleming, Center piece, P. Bedeau, Chamber pail, H. Gerken, Churn, J. McClure, Cider compound, condensed, E. R. Cleveland, Clamping or tearing checks or paper, device for, W. G. Morton

Table of inventions including Refrigerator building, T. J. & E. H. Hughes, Roofs, machine for closing seams in sheet metal, S. Woodhead, Rubber goods, reclaiming rubber from old and waste vulcanized rubber and utilizing the same in manufacturing, J. H. Cheever, Ruler, parallel, W. A. Ducker, Saddle, J. Straus, Saw, drag, J. P. Fosdyck, Sawing machine, C. W. Dunn, Saw machine, drag, L. M. Comstock, Saw mill carriage dog, G. F. Knight, Sawing machine, S. W. Brown, Sewing machine, scroll, W. D. Herschel, Screw threads, machine for cutting, J. H. Vinton, Secretary table, A. Iske, Settee, lawn, J. E. Cotton, Sewers or pipes, apparatus for forming cement, W. Wilson, Sewing machine, J. Keith, Sewing machine embroidering attachment, J. Jankowitch, Sewing machine shuttle, T. J. Holton, Sewing machine shuttle, Miller & Diehl, Sewing sweat linings into hats, machine for, J. Butcher, Sifter, scoop, W. J. Johnson, Sink, G. & C. Hayes, Slaughtering apparatus, H. P. Rankin, Snuff, catarrh, G. H. Buck, Soldering cans, E. Norton, Soldering square cans, machine for, T. H. Hamilton, Soup compound, J. F. Tyrrell, Spinning frames, yarn protector and traveler clearer for ring, J. W. Wattles, Stamp canceling device, Jemison & Watson, Stamp, ticket, J. R. Robinson, Steam boiler and furnace, J. E. Culver, Steam engine, H. C. Hunt, Steam generator, T. C. Joy, Stirrup, H. E. Waehle, Stove, coal, C. G. Moulton, Sulky, W. S. Frazier, Suspensives, J. Katzenberg, Tack extractor, G. J. Capewell, Tap and faucet, P. F. Gardner, Telephone, G. L. Anders, Testing machine, R. H. Thurston, Theft detector, Fris & Fenn, Thill coupling, J. F. C. Rider, Thrasher and separator, C. Tostenson, Thrasher, clover, Woodward & Bennet, Tobacco case, J. W. Stone, Top, chromatic, H. Van Altna, Toy, bell, Kyser & Rex, Toy building block, composition, O. & G. Lilienthal, Toy pistol, J. B. Secor, Toy whip and cane handle, M. A. Gilman, Triangle, draughtsmen's, A. Herzog, Truck, hand, W. B. Allen, Trunk, traveling, C. E. Marvine, Truss, hernial, C. H. Tucker, Tuyere, O. P. Clayton, Valve, N. Curtis, Vegetable cutter, E. A. Rice, Vehicle spring seat, J. O'Connor, Velocipede, D. A. Gunn, Velocipede, G. Lowden, Velocipede, W. Palmer, Velocipede, G. W. Pressey, Veneering, ornamental, F. Koskul, Wagon box, S. C. Brown, Wagon jack, G. Lehman, Wagon platform gearing, A. S. Wakely, Washing machine, Hurd & Mosher, Water conductor and joint, J. L. Old, Water supply for cities and towns, system of, G. E. Beach, Water wheel, L. A. Pelton, Well, reservoir, D. H. Tichenor, Wells, apparatus for lining, W. Wilson, Whiffletree hook, A. Pfeifer, Whistle and compass combined, L. W. Fairchild, Wick trimmer, oil stove, Walker & Williams, Wire stretching device, W. R. Horsley, Wires, machine for forming loops for, G. D. Haworth, Wood surfacing machine, L. Houston, Wringer, J. Todd

DESIGNS.

Table of designs including Carpet, J. Barrett, Carpet, W. J. Gadsby, Oil cloth, C. T. & V. E. Meyer, Pencil case, L. W. Fairchild, Picture chart, S. Hursen, Polishing head, C. L. Bellamy, Sewing machine case, E. F. French, Statue, R. Kasinski, Type, font of printing, J. Herriet, Type, font of printing, A. Will, Wall paper, E. Leissner

TRADE MARKS.

Table of trade marks including Flour, B. R. Pegram, Jr., Ointment, Crispin Brothers, Soap, T. A. Butler

Table of English Patents Issued to Americans, including Amber working, F. J. Kaldenberg, Brakes, railroad, S. Fairman, Baltimore, Md., Coke, manufacture of, H. C. Bull, Brooklyn, N. Y., Condensers, surface, C. B. White et al., San Fran., Cal., Dynamo-electric machine, C. A. Hussey et al., N. Y. city, Electric current, measuring, T. A. Edison, Menlo Park, N. J., Electric lighting apparatus, H. S. Maxim, New York city, Firearms, E. G. Parkhurst, Hartford, Conn., Firearms, H. R. Houghton, New York city, Grain, separating iron particles from, S. Howes et al., Silver Creek, N. Y., Gas combustion apparatus, A. W. Morton, B'klyn, N. Y., Gas, apparatus for lighting, G. T. Gauster, Reading, Pa., Gold ore separator, T. A. Edison, Menlo Park, N. J., Ice, manufacture of, J. C. De La Vergne et al., N. Y. city, Horseshoes, manufacture of, D. Billings, New York city, Life saving raft, T. B. Griffith, Carver, Mass., Mowing machine, E. Smith, Pittsburg, Pa., Meat, packing and preserving, J. N. Whitney, N. Y. city, Suspensives and braces, T. O. Potter, Boston, Mass., Spindles of spinning machines, C. H. Chapman, Shirley, Mass., Spirit levels, W. W. Vaughn et al., San Joaquin, Cal., Tables, etc., for ships, J. F. Dabson, Boston, Mass., Wire annealing, W. Hewitt, Trenton, N. J., Wire cleaning, W. Hewitt, Trenton, N. J.