

Business and Personal.

The Charge for Insertion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in next issue. The publishers of this paper guarantee to advertisers a circulation of not less than 50,000 copies every weekly issue.

OFFICE OF AMERICAN AGRICULTURIST, NEW YORK, July 22, 1878.

H. W. Johns Mfg Co., 87 Maiden Lane, New York. DEAR SIRS—I have used your Paint upon outside work of my house, and can already see that the work done with it is superior to that done with the Lead and Oil Paint. I am much pleased with the Paint, and wish now to try the pure white for inside work, etc. Yours truly, HENRY STEWART.

For Sale.—Works completely equipped for the manufacturing of Carriage Axles. Is well located to coal and iron; also very accessible to market. Address E. P. Bullard, 14 Dey St., New York.

All kinds Machine Drawings. Inventor's work a specialty. Hours, 9 to 6. Wm. D. Skidmore, 733 Broadway, New York.

Brass Castings; bottom prices. H. B. Morris, Ithaca, N. Y. For Alcott's Improved Turbine, see adv. p. 204.

Boiler Feed Pump, with tight and loose pulleys; sure to work. Price \$32. York & Smith, Cleveland, O.

For Sale.—An Agricultural Establishment, consisting of two story wood and machine shop, foundry, office, and storeroom; water power. Address Box "I," Weldon, N. C.

Wanted.—The address of the manufacturers of Union Spring Churn, G. W. Collins, Patentee. F. A. Griffin, Clyde, Kansas.

We are frequently asked, "Which is the largest, best, and most reliable retail clothing house in New York?" To one and all we say, Baldwin the Clothier's.

The American Institute in New York has recently adjudged that the Esterbrook Steel Pens are "the best in use." They can be had of all stationers.

Judson's Sectional Assay Furnaces. Improved muffle and revolving grate. W. E. Judson, Cleveland, O.

Boat Engines, for sidewheel boats drawing 6 to 12 in; direct acting; link motion; cheap. Box 559, Owego, N. Y.

Machines for Tapping Water Mains under Pressure. Apply at Easton Brass Works, Easton, Pa.

For Sale.—Four Boilers, 100 horse power each, return drop flue; A 1 condition; \$1,500 each. 1 Berryman Heater, 42 x 96; A 1 condition; \$400. D. L. Einstein, 16 White St., New York.

Traction Tire for Portable Engines, etc. Sole manufacturers, H. Lloyd, Son & Co., Pittsburg, Pa.

Peck's Patent Drop Press. See adv., page 173.

Spokes and Rims, white oak and hickory, best quality, to any pattern, and Hammer Handles of best hickory. John Fitz, Martinsburg, West Va.

For the best Stave, Barrel, Keg, and Hoghead Machinery, address H. A. Crossley, Cleveland, Ohio.

Collection of Ornaments.—A book containing over 1,000 different designs, such as crests, coats of arms, vignettes, scrolls, corners, borders, etc., sent on receipt of \$2. Palm & Fechteler, 403 Broadway, New York city.

Best Oak Tanned Leather Belting. Wm. F. Forepaugh, Jr., & Bros., 531 Jefferson St., Philadelphia, Pa.

National Steel Tube Cleaner for boiler tubes. Adjustable, durable. Chalmers-Spence Co., 40 John St., N. Y.

Split Pulleys at low prices, and of same strength and appearance as Whole Pulleys. Yocom & Son's Shafting Works, Drinker St., Philadelphia, Pa.

Stave, Barrel, Keg, and Hoghead Machinery a specialty, by E. & B. Holmes, Buffalo, N. Y.

Solid Emery Vulcanite Wheels.—The Solid Original Emery Wheel—other kinds imitations and inferior. Caution.—Our name is stamped in full on all our best Standard Belting, Packing, and Hose. Buy that only. The best is the cheapest. New York Belting and Packing Company, 37 and 38 Park Row, N. Y.

Sheet Metal Presses, Ferracute Co., Bridgeton, N. J. Nickel Plating.—Sole manufacturers cast nickel anodes, pure nickel salts, importers Vienna lime, crocus, etc. Condit, Hanson & Van Winkle, Newark, N. J., and 92 and 94 Liberty St., New York.

Wright's Patent Steam Engine, with automatic cut-off. The best engine made. For prices, address William Wright, Manufacturer, Newburgh, N. Y.

Presses, Dies, and Tools for working Sheet Metal, etc. Fruit & other can tools. Bliss & Williams, B'klyn, N. Y. Bradley's cushioned helvehammers. See illus. ad. p. 205.

Forsyth & Co, Manchester, N. H., & 212 Centre St., N. Y. Belt Forging Machines, Power Hammers, Comb'd Hand Fire Eng. & Hose Carriages, New & 2d hand Machinery. Send stamp for illus. cat. State just what you want.

Electrical Indicators for giving signal notice of extremes of pressure or temperature. Costs only \$20. Attached to any instrument. T. Shaw, 915 Ridge Ave. Phila.

Instruction in Steam and Mechanical Engineering. A thorough practical education, and a desirable situation as soon as competent, can be obtained at the National Institute of Steam Engineering, Bridgeport, Conn. For particulars, send for pamphlet.

Hydraulic Jacks, Presses and Pumps. Polishing and Buffing Machinery. Patent Punches, Shears, etc. E. Lyon & Co., 470 Grand St., New York.

Portable Forges, \$12 Roberts, 107 Liberty St., N. Y. Telephones repaired, parts of same for sale. Send stamp for circulars. P. O. Box 205, Jersey City, N. J.

For Pat. Safety Elevators, Hoisting Engines, Friction Clutch Pulleys, Cut-off Coupling, see Frisbie's ad. p. 188.

Machine Knives for Wood-working Machinery, Book Binders, and Paper Mills. Large knife work a specialty. Also manufacturers of Solomon's Parallel Vice. Taylor, Stiles & Co., Riegelsville, N. J.

Special Wood-Working Machinery of every variety. Levi Houston, Montgomery, Pa. See ad. page 173.

For Mill Mach'y & Mill Furnishing, see illus. adv. p. 188.

Mineral Lands Prospected, Artesian Wells Bored, by Pa. Diamond Drill Co. Box 423, Pottsville, Pa. See p. 189.

Portable Railroads. Sugar Mills. Horizontal & Beam Steam Engines. Atlantic Steam Engine W'ks, B'klyn, N. Y.

Planing and Matching Machines, Band and Scroll Saws, Universal Wood-workers, Universal Hand Jointers, Shaping, Sand-papery Machines, etc., manuf'd by Bentel, Margendant & Co., Hamilton, Ohio. "Illustrated History of Progress made in Wood-working Machinery," sent free.

Fire Brick, Tile, and Clay Retorts, all shapes. Borgner & O'Brien M'rs, 23d St., above Race, Phila., Pa.

The Chester Steel Castings Co., office 407 Library St., Philadelphia, Pa., can prove by 15,000 Crank Shafts, and 10,000 Gear Wheels, now in use, the superiority of their Castings over all others. Circular and price list free.

Brass & Copper in sheets, wire & blanks. See ad. p. 205.

Millstone Dressing Diamonds. Simple, effective, and durable. J. Dickinson, 64 Nassau St., New York.

Walrus Leather, Solid Walrus Wheels; Wood Wheels covered with walrus leather. Greene, Tweed & Co., N. Y.

The Improved Hydraulic Jacks, Punches, and Tube Expanders. R. DuRogon, 24 Columbia St., New York.

For Superior Steam Heat Appar., see adv., page 204.

We will purchase or manufacture on royalty, patented articles of real merit. Farley & Richards, Phila., Pa.

Silent Injector, Blower, and Exhauster. See adv. p. 205.

Millstone Dressing Machine. See adv., page 206.

Cut Gears for Models, etc. Models working machinery, experimental work, manufacturing, etc., to order. D. Gilbert & Son, 212 Chester St., Phila., Pa.

Linen Hose and Rubber Hose of all sizes, with or without coupling. Greene, Tweed & Co., New York.

Holly System of Water Supply and Fire Protection for Cities and Villages. See advertisement in SCIENTIFIC AMERICAN of last week.

The E. Horton & Son Co., Windsor Locks, Conn., manufacture the Sweetland Improved Horton Chuck.

The best Truss ever used. Send for descriptive circular to N. Y. Elastic Truss Co., 683 Broadway, New York.

Inventor's Institute, Cooper Union. A permanent exhibition of inventions. Prospectus on application. 733 Broadway, N. Y.

For Reliable Emery Wheels and Machines, address The Lehigh Valley Emery Wheel Co., Weissport, Pa.

Steam Engines; Eclipse Safety Sectional Boiler. Lambertville Iron Works, Lambertville, N. J. See ad. p. 17.

Hydraulic Cylinders, Wheels, and Pinions, Machinery Castings; all kinds; strong and durable; and easily worked. Tensile strength not less than 65,000 lbs. to square in. Pittsburg Steel Casting Co., Pittsburg, Pa.

New Economizer Portable Engine. See illus. adv. p. 206.

Fine Taps and Dies in Cases for Jewelers, Dentists, and Machinists. Pratt & Whitney Co., Hartford, Conn.

Catechism of the Locomotive, 625 pages, 250 engravings. The most accurate, complete, and easily understood book on the Locomotive. Price \$2.50. Send for a catalogue of railroad books. The Railroad Gazette, 73 Broadway, New York.

For Shafts, Pulleys, or Hangers, call and see stock kept at 79 Liberty St., N. Y. Wm. Sellers & Co.

Wm. Sellers & Co., Phila., have introduced a new injector, worked by a single motion of a lever.

Ore Breaker, Crusher, and Pulverizer. Smaller sizes run by horse power. See p. 204. Totten & Co., Pittsburg, Pa. For Patent Shapers and Planers, see illus. adv. p. 185.

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

W. B. M.—1. Argillaceous lime carbonate. 2. Calcite. 3. Celestite, contains about 50 percent of strontia. 4. Fluorspar in quartz. 5. Hematite.—P. H. S.—An impure kaolin; it would hardly pay to work.—F. B. Mc.—It is magnetic iron sand mixed with menaconite, or titaniferous iron and quartz sand; no chromium present.—G. M.—It is a fine silicious clay, it might be useful for some polishing purposes and in the manufacture of certain kinds of pottery, but it would hardly bear transportation East.—T. S. S.—It is an argillaceous lime carbonate, possibly a good cement stone. It might repay an analysis.—J. B. C.—It is quartz.

COMMUNICATIONS RECEIVED.

On Sun Spots. By A. E. H. On Uniformity of Gauge. By J. R. On a New Ellipsograph. By D. N. G. On Filing. By R. G.

[OFFICIAL.]

INDEX OF INVENTIONS

FOR WHICH

Letters Patent of the United States were Granted in the Week Ending

March 2, 1880,

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. 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 inventions with patent numbers, including: Air compressor, J. H. Parkinson; Air cooling apparatus, W. S. Wilkinson; Animal trap, W. S. Kisinger; Annunciator, electro-magnetic, A. Bosch; Axle box, car, C. Barrett; Axle box, car, Crockett & Barrett; Axle box, vehicle, J. W. Trueblood; Axles, ball and socket coupling for vehicle, J. Sinnamon; Balance wheel connecting device, B. Merritt; Beestead, invah, C. M. Campbell; Berth, penulium, F. Gardner; Binder, temporary, A. D. Hoffman; Blind, window, J. M. Farrier; Boiler furnace, W. M. Fisher; Boot and shoe counter brace, J. G. Whittier; Boot, plowman's, S. Brown; Boots and shoes, making rubber, G. M. Allerton.

Table listing inventions with patent numbers, including: Boots, combined counter stiffener and insole for rubber, G. D. Margraf; Box filler, automatic, R. Pickering; Brick machine mould, G. Carnell; Buckle, I. L. Landis; Building houses, barns, fences, etc., J. M. Leeds; Bung, J. Brown, Jr.; Bung, J. Kirby (r); Car coupling, J. D. Aycock; Car coupling, J. H. Henley; Car draw bar, freight, C. Barrett; Car draw bar, railway, D. Hoyt; Car, freight, C. Barrett; Car, freight, L. Myers; Car roofing, C. A. Smith; Carriage spring, H. W. Avery; Cartridge box, V. Sauerbrey; Caster, distributing, H. Kahler; Cement, glue, J. Firmbach; Chain, drive, W. D. Ewart; Check box, restaurant, W. H. H. Wood; Check rower, J. Putman; Churn, J. Gehr; Clamp, G. J. Dickson; Clock case, Davies & Somers; Clothes slide, W. N. Wylie; Collar, horse, M. Turley; Coloring matter obtained from alpha-naphthol, H. Caro; Columns, combined capital and base for metallic, J. Johnson; Commode, J. B. Wortham; Cooking utensil, J. M. Webb; Corn drill, R. L. Benedict; Corn husking machine, F. Rose; Core anchor and stud, C. D. Woodruff (r); Counter and heel protector, A. A. Norman; Curtain dust tightener, H. Resley; Curtain, dust and salvage cornice, W. M. Brackett; Die and former, Blum & Schoettle; Ditch cleaning machine, W. P. Smith; Dressing machine, Z. Williams; Egg beating apparatus, T. Earle; Elevators by railway cars, device for operating, N. Nolan; Excavating machine, J. T. Dougine; Fare register, J. B. Benton; Feathers for clusters, machine for preparing, C. H. Low; Feed trough for stock, J. M. Irwin; Fence, portable, J. Peabody; Fence, metallic, H. Marsh; Fencing, stretcher for straining metallic, J. & W. M. Brinkerhoff; File, bill, H. E. Roberts; File blanks, die for making half round, A. Ridal; File handle, C. M. Fairbanks; File, letter, W. A. Amberg; Firearm, breech-loading, V. Sauerbrey; Fire kindlers and fuel, machine for moulding, M. B. Coburn; Flour, making self-raising, H. C. Dart; Flour packer, A. W. Straub; Fluid meter, J. R. Norfolk; Fulling and scouring process and material for, J. W. V. Martin; Furnace grate, A. Kohlhofer; Fuse, electric, H. J. Smith; Gas lighting device, electric, H. F. Packard; Gate, J. T. & O. G. Wagers; Grain binder, S. D. Locke (r); Grain binder, C. B. Withington; Grain separator, magnetic, Thayer & Cook; Grate front, H. D. Pursell; Grinding mill, J. J. Faulkner; Grinding mill, S. C. Schofield (r); Grist mill alarm attachment, W. H. Hottel; Gun, magazine, A. Burgess; Harness loop press, J. L. Barkley; Harrow, J. H. Barley; Harrow and roller, combined, Ring & Mooney; Harvester, Kromer & Rinkloff; Hat and other head covering, reversible, L. Girbarat; Hat tip, J. Bigelow; Hedge fence layer, F. Poole; Hoe and rake, I. A. Murchison; Hog cholera compound, W. Benton; Hoop machine, barrel, G. A. Raupp; Horses, safety appliance for releasing, B. F. Strange; Hose pipe nozzle, Alderson & Loftus; Hose reel, B. F. Stoner; Hot air register, E. A. Tuttle; Hot air register, S. Tuttle, Jr.; Hot, apparatus for making, A. J. Zilker; Ironing board clamp, E. W. Warren; Ironing machine, M. Steinbock; Ironing table, S. S. Case; Kegs, etc., cover for, A. J. Robinson; Knob attachment, W. H. Gonne (r); Label holder, T. B. Bishop; Lamp burner, H. W. Hayden; Liquids from casks, etc., apparatus for drawing, E. L. Starck; Lockbox cover, W. B. Hamilton; Loom drop box mechanism, J. Doering; Matches, shipping package for, O. C. Barber; Mattress frame, woven wire, D. J. Powers (r); Mattresses, tightening device for woven wire, D. J. Powers (r); Metal rods, device for cutting off and screw-threading, D. Burin; Metallizing fibrous, cellular, and porous substances, R. Waitz; Nail making machine, N. C. Lewis; Navigation, device for slack water, H. Haupt; Nut lock, Hackman & Tinsley; Nut lock, T. C. Henry; Ore feeder, H. M. Ransom; Oyster tongs, W. L. Messick; Package box, G. C. Wenzel; Paper bags, machinery for making first folds of satchel-bottom, S. E. Pettee; Paper box, F. Knobloch; Paper machines, suction or vacuum box for, Jordan & Markle; Paper trimming and slitting machine, R. Binns; Pen, marking, J. W. Stoakes; Pianoforte agraffe, E. T. Bowly; Pianoforte and organ, combined, J. T. Wright; Pianoforte tuning pin lock, L. W. Norcross; Pile, tubular, J. Johnson; Pistol rest, I. Kinney; Planter and cultivator, combined, J. Beeson; Planter, seed, A. B. Pierson; Plow, J. G. Gross; Plow, H. Sattler; Plow and colter, swivel, J. P. Holley; Plow attachment, B. L. Sims; Plow, sulky, F. C. Bryan;

Table listing inventions with patent numbers, including: Plow, sulky, W. D. Japs; Plow, wheel, W. D. Miller; Pocket, safety, M. A. Adler; Portfolio stand, B. P. Shillaber; Press, R. E. Hamilton; Pressure regulator, N. C. Locke; Printing machine delivery apparatus, C. Kahler; Pump, E. Lannay; Pump, cistern, M. Wieser; Purse or wallet protector, A. Whitenack; Railway frog, J. C. Center; Railway signal, R. B. Ireland; Railway switch bar, G. W. Whipple; Railway turn table, elevated, C. Donkersley; Refrigerating apparatus for hydrants and street fountains, G. F. Blinsinger; Refrigerator, W. F. Clapp; Refrigerator, E. P. Koantz; Rock drill, A. W. White; Roofing composition, G. W. Bender; Rotary chair, A. H. Oraway; Rotary engine, W. N. De Groat; Rotary engine, E. Waldron; Safe, Berkmyer & Brown; Salt evaporator, J. P. Sinclair; Sash supporter, W. W. Sweetland; Saw machine, drag, E. C. Bast; Saw machine, drag, W. J. Pulliam; Scales, pendulum weighing, J. Goodale; Sewing and other machines, cabinet for, G. W. Burgess; Sewing button holes, overseaming, etc., machine for, W. M. Smith; Sewing machine hand power, G. P. Herndon; Sewing machine motor, R. Whitehill; Sewing machine treadle, D. Leib; Shaft coupling, C. Q. Hayes; Shutter worker, R. G. Dudley; Speaking and signaling apparatus, comb'd house, C. Heisler; Speculum, rectal, A. W. Brinkerhoff; Spinning frame spindle, G. E. Taft; Spray dampener, H. Humphreville; Stamp, perforating, Barlow & Taylor; Starching machine, Langworthy & Norris; Station indicator, Herbert & Layton; Steam boiler, J. D. Ogle; Steam boiler feeding apparatus, F. Fromentin; Steam boiler, portable, W. R. Michener; Steam engine, L. Thomas; Steam engine lubricator, A. L. Harrison; Stone crusher, C. M. Brown; Stovelia, J. J. Lowden; Stump puller, J. S. Mulhollen; Suspender straps or ends, material for, O. Kleinberger; Suspenders, H. & W. Turner; Swift, C. C. E. Van Alstine; Table, J. E. Thomas; Tablets, slating compound for erasable, H. W. Holly; Tap for barrels, measuring and registering, E. J. Shaw; Tape holder, E. Rice (r); Telegraph, duplex, F. W. Jones; Telephone, mechanical, J. J. Still; Textile and other fabrics, machine for cutting, A. & H. Warth; Thill coupling, W. Harter; Ticket, railway, A. B. Groff; Tobacco curing furnace, J. C. Miller (r); Tobacco, machine for pressing and cutting plug, L. W. Spencer; Tooth extractor, W. Cunningham; Traction engine, C. G. Cooper; Tube forming machine, L. S. White; Type writing machine, F. Sholes; Vapor burner, F. A. Lyman; Varnish, lacquer, etc., apparatus for boiling, J. Werner; Vase and flower pot suspender, C. B. Pettengill; Vegetable cutter, J. De Frain; Vehicle dash fastening attachment, G. M. Peters; Vehicle foot rail, W. F. Black; Vehicle spring, J. B. Whitcomb; Velocipede, C. Hammelmann; Wagon body corner iron, J. Gorham; Wagon brake, P. Jarvis; Washing machine, Heaven & Spainhower; Water, etc., apparatus for purifying, A. R. Lender; Weather strip, J. T. Westbrook; Wells, apparatus for flooding oil, H. R. Davis; Whip and rein holder, combined, G. D. Anderson; Window netting, C. T. Phelan; Wrench, M. P. Hood; Yarn, apparatus for detecting knots in, R. Alioth; Yoke, neck, H. Jacobs; Yoke center swivel, neck, J. Jacobs;

DESIGNS.

Table listing designs with patent numbers, including: Bracelet, J. A. Lieb; Carpet, W. J. Gadsby; Carpet, T. J. Stearns; Glass vessels, W. R. Warner; Spoon handles, A. Furniss; Watch chain attachment, S. R. Mace; Watch chain attachment or end piece, E. F. Nortemann.

TRADE MARKS.

Table listing trade marks with patent numbers, including: Cigars, cigarettes, and chewing and smoking tobacco, M. I. Hampton; Medicinal preparation, certain, Lanman & Kemp; Tobacco, chewing, Allen & Ellis; Tobacco, manufactured chewing and smoking, Allen & Ellis; Tobacco, plug chewing, Allen & Ellis; Urinary organs, remedy for diseases of the, C. A. Cook; Washing powders, J. Oakley & Co.

English Patents Issued to Americans.

From February 27 to March 2, inclusive.

Table listing English patents issued to Americans, including: Boots and shoes, manuf. of, E. S. Pratt, Chicago, Ill.; Elevators for buildings, B. Slusser et al., Sidney, O.; Electric dynamo machine, C. F. Brush, Cleveland, O.; Engine governors, N. E. Nash, Westerly, R. I.; Explosives, J. Pattison, Nevada City, Cal.; Furnace for boilers, F. W. Brainerd, Freeport, Ill.; Galvanic battery, H. E. Hunter, Hinsdale, N. H.; Knife polishing machine, W. S. Guinness, N. Y. city; Pens, fountain, A. M. Sutherland et al., Brooklyn, N. Y.; Pumps, G. H. Felt, New York city; Rolling machine, G. Parr, Buffalo, N. Y.; Shearing textile fabrics, apparatus for, D. C. Summer et al., Millbury, Mass.; Sugar moulding apparatus, C. H. Hersey et al., Boston, Mass.; Stave machine, E. & B. Holmes, Buffalo, N. Y.