

C. J. of Miss.—Unless the hose, which you propose to use as a siphon has enough rigidity to resist the atmospheric pressure, its walls will collapse. A metal pipe would be better. You might, however, prevent collapse in the hose by the use of coiled wire on the interior. There is no doubt that you can drain the land you speak of, by the use of a siphon, extended over the levee, the height of which is only fifteen feet, and with one leg of the siphon six feet longer than the other. It is probably the best and cheapest plan you can use.

J. J. F., of Texas.—Your plan of filling the space between the outer and inner walls of safes with carbonic acid, instead of the ordinary filling, would not, as you suppose, prevent the application of the oxhydrogen blow pipe to the penetration of the outer or burglar-proof wall. The plan of putting materials into separate receptacles, connected by fusible plugs, so that when heated they should come in contact, and generate carbonic acid gas, for the protection of the contents of safes, is also, in our opinion, an impracticable scheme.

G. T. B., of Mass.—We regard the habitual use of any laxative as bad, unless the state of the system imperatively demands it. The latter point can only be determined by a skillful physician. The extensive use of aperient medicines, is, we think, entirely unnecessary. The result aimed at may, in most cases, be secured in a more rational way, namely proper attention to diet, exercise, and the general laws of health.

J. L. C., of Pa.—It is perfectly practicable to draw water to the height of eighteen feet through a pipe one and one fourth inches in diameter, and seventy-five feet long, with a common small cast-iron pump. The tarnish of a silver watch is nothing extraordinary. The effect is due to sulphurous gases. The surface first turns a brownish yellow, which will, unless it be cleaned, deepen to a dirty black.

D. M., of Tenn.—Short-hand writing was known to the ancients. The short hand of the Romans was called "Tironian Notes," named it is supposed after Tiro, to whom the invention is credited. Manuscripts written in this hand date back as far as the seventh century. It is needless to say that it does not compare with the elegant and rapid modern systems of phonography.

C. L., of R. I.—"Oil of brick" is a name given by all chemists to empyreumatic oil, prepared by soaking bricks in oil, heating them to a high temperature, and condensing the vapors. It is used by lapidaries as a vehicle for the emery by which stones are sawn and out.

T. H. S., of Ky.—The best way to coat small brass articles with tin is to boil them in a solution of cream tartar, containing scraps of clock tin. If the articles are not finished after casting, they must be sealed with nitric acid, thoroughly washed, first in water, and next in water containing a potash, and afterward dried off in sawdust.

G. H., of Va.—Gas meters are tested at a fixed standard temperature, so that the volume they pass at each oscillation of the bellows is a constant. It is a mistake for a consumer to place a meter in a hot place, as the expansion of the gas will increase his bills.

D. E. P., of N. J.—Where fire insurance companies require the party walls of frame buildings to be bricked in, and two houses are placed together, the bricking in of one wall will not answer the requirement. Each wall must be bricked.

R. H. I., of Pa.—Your opponent is right. The word plank, in architecture, has a definite technical meaning. It is defined as a board exceeding nine inches in width. It is, however, commonly used by builders without regard to width.

E. G. S., of —.—We do not believe a hair dye exists that is really efficacious in coloring the hair, that does not contain either lead or some other mineral poison.

Business and Personal.

This Charge for Insertion under this head is One Dollar a Line. If the Notices exceed Four Lines, One Dollar and a Half per line will be charged.

The paper that meets the eye of manufacturers throughout the United States—Boston Bulletin, \$400 a year. Advertisements 17c. a line.

A New Waltham Watch, made especially for Railroad Men and Engineers, is fully described in Howard & Co.'s Price List of Waltham Watches. Every one interested should send for a copy, which will be mailed to any address free. Address Howard & Co., 785 Broadway, N. Y.

Our Windmill pumps water for railroads, country and city buildings, hotels, stock fields, drainage, and irrigation. Self-regulating, durable, and well tested. Con. Windmill Co., 5 College Place, New York.

The Entire Right of the best Wrench ever patented for sale. For drawings address J. F. Ronan, 36 Orchard st., Boston, Mass.

For the neatest, most durable, and cheapest curtain holder now in use; also, relative to prices, agencies, etc., address Yount & Keeperts, Littlestown, Pa.

For Sale—The entire right of Parsons' Patent Tool Adjuster for Lathes. Drawings and description sent on application. Address C. H. Standish, New Haven, Conn.

Upright Forge Hammers, improved Drop Presses. Send for circular. Charles Merrill & Sons, 556 Grand st., New York.

Send 50c. for silver-plated sample (free by mail) of "The Safety Shutter Bow." It holds the shutters securely, at various bows, and in such a way that they cannot be opened from the outside. Agents wanted. J. Pusey, 2,210 Brandywine street, Philadelphia, Pa.

Cotton Compresses, Gove's Patent, for shipping and plantation use. Equal to hydraulics. Built to order by John H. Gove, Lynn, Mass.

Wanted Immediately—New or 2d-hand slotting machine, to slot not less than 16 inches. Address, with full description and price, Fulton Iron and Engine Works, Detroit, Mich.

Wanted—A partner, with Capital, to introduce a patent of general utility. Address box 139, Staunton, Va.

Send prices of Spoke Planer, Hub Mortising Machine, and Corn Mill to S. C. Talmadge, Monticello, Jasper Co., Ga.

Correspondence solicited with parties having drills suitable for tunneling, driven by power. H. C. Freemaar, La Salle, Ill.

Manufacturers of self-regulating wind mills, please send circulars to J. S. McClellan, Urbana, Ohio.

Manufacturers of Carriages, Buggies, and Wagons, send descriptive price list to T. T. Edmunds, Columbus, Ga.

Catlin's Patent Self-closing Barrel Filler for filling packages with liquids of any kind. See other advertisement, and address, for circular, S. C. Catlin, Cleveland, Ohio.

Rawhide Sash Cord has no equal for heavy windows or dumb-waiters. Makes the very best round belting. Darrow Mfg Co., Bristol, Ct.

Dickinson's Patent Shaped Carbon Points and adjustable holder for dressing emery wheels, grindstones, etc. See Scientific American, July 24th, and Nov. 20, 1869. 64 Nassau st., New York.

Peck's patent drop press. Milo Peck & Co., New Haven, Ct.

Stationary Engine and Boiler, 2d-hand, in first-rate order, cylinder 16x24. For sale cheap. Address Howard Iron Works, Buffalo, N. Y.

Artificial Skin, absolutely water-proof. Applied immediately. Bruises, cuts, & burns. 50c. by mail. Try it. Ward & Co., Skanateles, N. Y.

Japanese Paper Ware—Spitoons, wash basins, pails, milk pans, etc. Perfectly water-proof, and will not break or rust. Send for circulars. Jennings Brothers, 352 Pearl st., New York.

Pictures for the World.—Prang's latest publications: "Wild Flowers," "Water Lilies," "Chas. Dickens," for sale everywhere.

"Your \$50 Foot Lathes are worth \$75." Good news for all. At your door. Catalogues Free. N. H. Baldwin, Laconia, N. H.

Foundry and Machine Shop for sale, with fine lot of patterns. Is doing a good business; excellent location for general jobbing, and for m'g agricultural implements. Address S. Moore & Bro., St. Peter, Minn.

Patent Water-proof Building Paper for Carpet for halls and stairways, shoe stiffening, walls, ceilings, and roofs, manufactured by McNeil, Irving & Rich. Patentees, Elwood, Atlantic Co., N. J., or 59 Duane st., New York, 520 Commerce st., Philadelphia, Pa.

The Best Hand Shears and Punches for metal work, as well as the latest improved lathes, and other machinists' tools, from entirely new patterns, are manufactured by L. W. Pond, Worcester, Mass. Office, 98 Liberty st., New York.

Wm. Roberts & Co., Designers and Engravers on Wood, 36 Beekman st., New York, would respectfully announce that they are now prepared to receive orders from manufacturers, and others, for engraving of machinery, views of stores, factories, trade marks, etc., etc.

Machinists and others using Fine Tools, send for illustrated catalogue. Goodnow & Wightman, 23 Cornhill, Boston.

Temper Steel Spiral Springs for machinists and manufacturers. John Chatillon, 91 and 93 Cliff st., New York.

One 60-Horse Locomotive Boiler, used 5 mos., \$1,200. Machinery from two 500-ton propellers, and two Martin boilers very low. Wm. D. Andrews & Bro., 414 Water st., New York.

Kidder's Pastilles.—A sure relief for Asthma. Price 40 cents by mail. Stowell & Co., Charlestown, Mass.

For solid wrought-iron beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, etc.

Keuffel & Esser, 71 Nassau st., N. Y., the best place to get 1st-class Drawing Materials, Swiss Instruments, and Rubber Triangles and Curves.

For tinman's tools, presses, etc., apply to Mays & Bliss, Plymouth st., near Adams st., Brooklyn, N. Y.

Lynn's Anti-Incrustator for Steam Boiler—The only reliable preventative. No foaming, and does not attack metals of boiler. Liberal terms to Agents. C. D. Fredericks, 587 Broadway, New York.

To ascertain where there will be a demand for new machinery or manufacturers' supplies read Boston Commercial Bulletin's manufacturing news of the United States. Terms \$400 a year.

Cold Rolled—Shafting, piston rods, pump rods, Coll ns pat. double compression couplings, manufactured by Jones & Laughlin, Pittsburgh, Pa. For mining, wrecking, pumping, drainage, and irrigating machinery, see advertisement of Andrews' Patents in another column.

It saves its Cost every sixty days—Mitchell's Combination Cooking Stove. Send for circular. R. B. Mitchell, Chicago, Ill.

Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING July 26, 1870.

Reported Officially for the Scientific American

SCHEDULE OF PATENT OFFICE FEES. On each caveat \$10. On filing each application for a Patent (seventeen years) \$15. On issuing each original Patent \$20. On appeal to Commissioner of Patents \$20. On application for Reissue \$30. On application for Extension of Patent \$50. On granting the Extension \$50. On filing a Disclaimer \$10. On an application for Design (three and a half years) \$10. On an application for Design (seven years) \$10. On an application for Design (fourteen years) \$30. In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$500 on application.

For copy of Claim of any Patent issued within 30 years \$1. A sketch from the model or drawing, relating to such portion of a machine as the Claim covers, from \$1 upward, but usually at the price above named. The full Specification of any patent issued since Nov. 20, 1866, at which time the Patent Office commenced printing them \$1.25. Medical Copies of Drawings of any patent issued since 1836, we can supply at a reasonable cost, the price depending upon the amount of labor involved and the number of views. Full information, as to price of drawings, in each case, may be had by addressing MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

- 105,619.—PAPER FRUIT BASKET.—Alfred Adams, Chagrin Falls, and Joseph F. Jewett, Cincinnati, Ohio.
105,620.—CIGAR MACHINE.—Julian Allen and John Fanning, Brooklyn, N. Y., assignors to the American Cigar Machine Company, New York City.
105,621.—SEED PLANTER.—Prudden Alling, Norwalk, Ohio.
105,622.—APPARATUS FOR REDUCING WOOD TO PULP.—Custavus Ames, New York City, assignor to himself and William H. Cilley, Northfield, N. H.
105,623.—ADJUSTABLE DOOR SILL.—Maurice Armstrong, Girard, Ill.
105,624.—CHIMNEY COWL.—Christian W. Bache, Philadelphia, Pa.
105,625.—TELEGRAPH INSULATOR.—William W. Baldwin, Cleveland, Ohio.
105,626.—STEAM GENERATOR.—Nelson H. Barbour, New York City. Antedated July 19, 1870.
105,627.—MACHINERY FOR CUTTING WAX INTO SHEETS.—W. F. Barnes (assignor to himself and Susan H. Clark), Rockford, Ill.
105,628.—NEEDLE THREADER.—Nelson Barnum, La Porte, Ind.
105,629.—PRUNING SHEARS.—H. W. Black, Cecilton, Md., assignor to himself and E. T. Evans, Middletown, Del.
105,630.—SULKY CULTIVATOR.—N. G. Blauser, Etna, Ohio.
105,631.—SEWING MACHINE.—Thomas Bletcher (assignor to himself and William Riedell), London, England. Antedated July 19, 1870.
105,632.—POWER PRESS.—E. W. Bliss (assignor to Mays, Bliss & Co.), Brooklyn, N. Y.
105,633.—CUTTING ASHLARS.—William Boulton, Tompkinsville, Staten Island, N. Y.
105,634.—COMPOUND FOR MANUFACTURE OF PAINTS.—A. H. Bourne, Fort Scott, Kansas. Antedated June 5, 1870.
105,635.—RAILWAY CAR STARTER.—C. B. Broadwell, New Orleans, La.
105,636.—SPRING BED BOTTOM.—Mortimer Cahill, Kalamazoo, Mich. Antedated July 14, 1870.
105,637.—DESIGN DIE FOR ORNAMENTS.—B. F. Calley, Saugus, Mass.
105,638.—GAGE FOR PRINTING PRESSES.—Andrew Campbell, Brooklyn, N. Y.
105,639.—SHEEP SHEARS.—Daniel Campbell, Elizabeth, N. J., assignor to Henry Seymour & Co., New York City.
105,640.—STEAM HEATER.—B. F. Campbell and Charles Whittier, Boston, Mass.
105,641.—RECEPTACLE FOR MEASURING OUT SHOT.—E. C. Carleton (assignor to William Stewart & Co.), Port Huron, Mich.
105,642.—STEAM GENERATOR.—John Carroll, Detroit, Mich.

- 105,643.—HULLING MACHINE.—J. E. Carver (assignor to H. T. Pratt and J. C. Alden), Bridge water, Mass.
105,644.—LAMP.—David Challinor, Birmingham, Pa.
105,645.—TOY MONEY BOX.—J. H. Chappell, Brooklyn, N. Y.
105,646.—WASHING MACHINE.—W. B. Cheeseman, Winona, Minn.
105,647.—SAWING MACHINE.—M. N. Clark, Harrison City, Pa.
105,648.—WATER PROOF CEMENT.—T. S. Clark, Charlestown, Mass.
105,649.—SAD IRON.—John Conner, Richmond, Ind. Antedated July 15, 1870.
105,650.—WASHING MACHINE.—Emanuel Cool and Sabisea Cool, Buckhannon, West Va.
105,651.—REIN HOLDER.—W. H. Cooper, Glover, Vt.
105,652.—CHURN.—W. H. Curtin, Clement, and William Lamers, Breese, Ill.
105,653.—RELAY MAGNET.—L. C. A. J. G. D'Arincourt, Paris, France.
105,654.—ADJUSTABLE REEL POST FOR HARVESTERS.—J. W. Davis, Dublin, Ohio.
105,655.—EGG BEATER.—G. K. Dearborn, Pawtucket, assignor to Timothy Earle, Smithfield, R. I.
105,656.—CRAMP HOOK FOR TELEGRAPHIC WIRE INSULATORS.—W. H. DeChant (assignor to David Brooks), Philadelphia, Pa.
105,657.—PLAINING AND MOLDING MACHINE.—Frank Douglas, Norwich, Conn.
105,658.—WOOD PAVEMENT.—Henry Dowson, Springfield, Ill.
105,659.—MACHINE FOR CRUSHING MINERAL AND OTHER HARD SUBSTANCES.—D. C. Ebaugh, Charleston, S. C.
105,660.—DEVICE FOR PREVENTING PLOWS FROM CHOKING.—W. M. Eccles, St. Louis, Mo.
105,661.—CARPET "UNDERLIE".—Nelson Edwards, Jericho, Vt.
105,662.—FARM GATE.—G. J. Fiedler, Danby, Ill.
105,663.—ELECTRO-MAGNETIC MOTOR.—Louis Finger, Cambridge, Mass.
105,664.—ELECTRO-MAGNETIC APPARATUS FOR MOVING PANORAMAS.—Louis Finger, Cambridge, Mass.
105,665.—MOVABLE SCREEN FOR PHOTOGRAPHERS.—E. J. Foss, Cambridge, Mass. Antedated January 26, 1870.
105,666.—DEPURATOR.—S. C. Frink, Indianapolis, Ind.
105,667.—FLOUR SIFTER.—George Gessert, Edwardsville, Ill.
105,668.—MACHINE FOR ROLLING PLOW BEAMS.—William Gilman, Ottawa, Ill.
105,669.—VAPOR BURNER.—L. A. Gouch, Yonkers, N. Y.
105,670.—MANUFACTURE OF SOAP.—Louis Groux, New York City.
105,671.—BOOT JACK AND SPUR.—Timothy Gunn, Hamilton county Ind.
105,672.—COAL STOVE.—Joseph Hackett, Louisville, Ky.
105,673.—PLOW.—J. D. Hall (assignor to William Kingsworth), Canton, Ohio.
105,674.—WAGON HUB.—J. D. Ham (assignor to himself, Eli McCroan, and W. A. Wilkins), Bethany, Ga.
105,675.—BOLT.—Mathew Harbster (assignor to Harbster Brothers & Co.) Reading, Pa.
105,676.—SCHOOL SEAT.—C. G. Harrington and David Mills, Northville, Mich.
105,677.—CHAIR AND LOUNGE.—M. P. Harley, Philadelphia, Pa.
105,678.—OVEN OR STOVE FOR HEATING THE BLAST OF BLAST FURNACES.—J. M. Hartman, Philadelphia, Pa. assignor to George W. Whitaker.
105,679.—MODE OF ATTACHING HOLD BACK RINGS TO HAMES.—W. B. Hayden, Columbus, Ohio.
105,680.—HORSE POWER.—J. R. Hedges, Glenwood, assignor to himself and Valentine & Sparks, Buffalo, N. Y.
105,681.—CIGAR BOX.—Eugen Henkel, North Scituate, R. I.
105,682.—WINDLASS.—Alonzo Hitchcock, New York City.
105,683.—OIL STILL.—John Hofferberth, Baltimore, Md.
105,684.—DUMPING WAGON.—Britain Holmes Buffalo, N. Y.
105,685.—STEAM GAGE.—J. P. Holt, Cleveland, Ohio.
105,686.—MITERING MACHINE.—John Holzberger, Newark, N. J.
105,687.—GLOVE.—D. S. Hulett, Gloversville, N. Y.
105,688.—APPARATUS FOR REMOVING OIL FROM SEEDS, MEAL, ETC.—E. S. Hutchinson, Baltimore, Md.
105,689.—RAILROAD CAR JOURNAL BOX.—Charles Ihrig, Jersey City, N. J.
105,690.—GRAIN DRILLING MACHINE.—Joseph Ingels, Milton, Ind.
105,691.—PADLOCK.—Joseph Ingels, Milton, Ind.
105,692.—LAMBREQUIN.—H. M. Johnston, New York City. Antedated July 11, 1870.
105,693.—LAMBREQUIN.—H. M. Johnston, New York City. Antedated July 11, 1870.
105,694.—WATER WHEEL.—G. H. Jones, Rose, N. Y.
105,695.—BOXING FOR COVERING THE SHAFTING OF MACHINERY.—M. R. Jones, Darby, Wis.
105,696.—UNIVERSAL SHAFT COUPLING.—M. A. Keller, Littlestown, Pa.
105,697.—COMPOUND SWITCH FOR ELECTRIC BATTERIES.—Jerome Kidder, New York City.
105,698.—WATER WHEEL.—Alfred Kneass, Northumberland, Pa.
105,699.—METALLIC RAILWAY CAR.—B. J. La Mothe, New York City.
105,700.—TRACE SUPPORTING STUD.—Josiah Letchworth, Buffalo, N. Y.
105,701.—COMBINED HOBBY HORSE AND CARRIAGE MOTOR.—John Liming, Philadelphia, Pa.
105,702.—CORN PLANTER.—W. H. Little, Prairie Du Chien, Wis.
105,703.—CORN AND SEED PLANTER.—Wilber C. Lockwood, Spring Mills, Mich.
105,704.—CROSS-CUT SAW.—Peter Longwell, Poplar, Ohio.
105,705.—DEVICE FOR PREVENTING THE UNCOUPLING OF CLUTCHES IN SPINNING MULES.—Hezekiah Macon and Joshua Hunt Providence, R. I.
105,706.—CAR COUPLING.—Malancthon B. Malott, Richmond, Ind.
105,707.—WOOD PAVEMENT.—Duncan McKenzie, Brooklyn, N. Y.
105,708.—ROTARY ENGINE.—Edwin D. Mead, Shortsville, N. Y.
105,709.—GRAIN DRYER.—Robert Milburn and Thomas Browning, No. 76 Church Lane, Whitechapel, Great Britain.
105,710.—PADLOCK.—D. K. Miller, Reading, Pa. Antedated July 22, 1870.
105,711.—GRINDER FOR CLEANING CASTINGS.—George Miller, Providence, R. I.
105,712.—WATER WHEEL.—George Miller, Providence, R. I.
105,713.—TAP-NOZZLE FOR CANS.—Herman Miller, New York City.
105,714.—METALLIC STANDARD FOR WAGON BOXES.—Edward Milner, Marquette, Mich.
105,715.—ATTACHMENT FOR SEWING MACHINE.—Schamu M. Moschcowitz, New York City.
105,716.—CORN HARVESTER.—Nelson Newman, Springfield, Ill.
105,717.—ADDING MACHINE.—Nels Ockerlund, New York City.
105,718.—REED MUSICAL INSTRUMENT.—Isaac T. Packard, Chicago, Ill.
105,719.—PLANKING SET.—E. H. Parker, Bucksport, Me. Antedated July 18, 1870.
105,720.—TREATING AND PRESERVING GRAIN IN BULK.—Charles F. Parrott (assignor to himself and John F. Kohler), New York City.
105,721.—TABLET LOCKET FOR PHOTOGRAPHS, ETC.—G. W. Picher, Brooklyn, N. Y.
105,922.—HORSE HAY FORK.—H. C. Porter, Grand Rapids, Mich.
105,723.—HAY CARRIER.—T. J. Powell, Naples, N. Y., assignor to George Smith, Providence, R. I., and J. C. DeLang, Detroit, Mich.
105,724.—HORSE POWER.—Robert Quinn, Whitefield, Miss.
105,725.—FLOATING TIDE DOCK.—William Rickard (assignor to himself and E. K. Meigs), Jersey City, N. J.
105,726.—MUSIC-LEAF TURNER.—E. B. Robinson, Portland, Me.