

Examples for the Ladies.

Mrs. Elizabeth A. Monaghan, of Brooklyn, N. Y., has used her Wheeler & Wilson Machine since 1861. During the war she stitched forty blouses a day of eight hours, averaging about \$16 a week: since then she has stitched from thirty to thirty-six linen coats a day. Last year, in three months, she stitched 1274 linen coats, earning \$186.46, besides doing her own housework and tending her baby. She would use no other Machine.

Mrs. C., of New York, has used a Wheeler & Wilson Machine since 1857, never averaging less than \$700 a year, and for the last five years \$1,000. She used the same needle during 1870, and earned with it over \$1,000.

The Sweet, Fixed Oil of the Cocoon is represented in Burnett's Cocaine.

Business and Personal.

The 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.

Boiler and Pipe Covering manufactured by the Chalmers Spence Non-Conductor Co. In use in the principal mills and factories. Claims—Economy, Safety, and Durability. Offices and Manufacturing, foot E. 9th street, New York, and 1208 N. 2d street, St. Louis, Mo.

Pattern Molding Letters (metallic), to letter or number castings. All sizes. H. W. Knight, Seneca Falls, N. Y.

Wanted—To invest \$5,000, or less, in business—manufacturing preferred. Would join a practical man in starting. Business experience and capacity—references. D. Nelwin, Boston, Mass.

J. H. Preston, Jefferson City, Mo., wants to know where whangs or thongs are made.

To Sash, Door, and Blind Manufacturers in the Southern States: A man, who thoroughly understands the above business, wants a position as superintendent, or as foreman. Good reference can be given. Address N. White, Meadville, Pa.

The Tools that sell—Patent Star Bevels and Star Try Squares. Acknowledged by all to be the best Tools in the market. G. W. Hallett & Co., West Meriden, Conn.

Valve Refitting Machinery, sold by C. F. Hall & Son, sole manufacturers of the only original Patent Machines. Office, 21 Murray Street, New York.

Contractors for the removal of buildings, entire, are requested to communicate with T. H. McHenry, Pikesville, Md.

Cutlers' Grindstones, machine made—J. E. Mitchell, Phila., Pa.

Wickersly Grindstones, very cheap—J. E. Mitchell, Phila., Pa.

For Cheap Process to anneal small hard Castings in ten minutes, send 50 cents to J. C. Spencer, Phelps, N. Y. Will file easily.

Cast Steel Reaper and Mower Guards are made by the Pittsburgh Steel Casting Co., strong as bar steel, and cheaper than wrought iron guards. See advertisement.

Sixty per cent allowed canvassers for Carpentry Made Easy, a valuable work for scientific men and mechanics. Howard Challen, Publisher, 521 Minor Street, Philadelphia, Pa.

Manufacturers and Mill Supplies of all kinds. Greene, Tweed & Co., 18 Park Place, New York.

The "Railroad Gazette" of March 2 contains a full page engraving of a Car Wheel Borer. Also much information of value to Engineers and Mechanics. Single copies, 10c. Address, 72 Broadway, New York.

The "Safety" Hold Back for Carriages prevents runaway accidents. See Sci. Am. Feb. 24, 1872. Undivided Interest, or State and County Rights, for sale. Address N. W. Simons, Williamsfield, Ohio.

Lord's improved Screen or Separator—also Watchman's Time Detector. For particulars, address Geo. W. Lord, 232 Arch St., Phila., Pa.

Scale in Steam Boilers. We will remove and prevent Scale in any Steam Boiler, or make no charge. Geo. W. Lord, 232 Arch Street, Philadelphia, Pa.

Walrus Leather for Polishing Steel, Brass, and Plated Ware. Greene, Tweed & Co., 18 Park Place, New York.

An Engineer, experienced in designing and constructing Engines, Boilers, and general Machinery, desires a permanent position as superintendent or head draftsman. Is practical machinist, and familiar with Indicator. Refers to leading concerns. Address, M. R., P. O. Box 5,652, New York.

Send samples of your Boiler Scale to Richard H. Buel, Consulting Mechanical Engineer, 7 Warren St., New York, who will find a method of removal or prevention, at moderate charges.

Gage Lathes and Wood Lathes. Wm. Scott, Binghamton, N. Y. Null Lathes and Law Arbors. Wm. Scott, Binghamton, N. Y.

The Exeter Machine Works, Exeter, N. H., manufacturers of Sectional Boilers and Steam Engines, will soon open, in Boston, Mass., a centrally located sales room, in connection with their works; and are willing to take the agency of a few first class Machines and Tools not already introduced in that city.

For Diamond Turning Tools, for Emery Wheels and Grindstones, address Sullivan Machine Co., Clarendon, N. Hamp.

Grindstones for manufacturing purposes a specialty—made by Worthington & Sons, North Amherst, Ohio. Send for price list.

Standard Twist Drills, every size, in lots from one drill to 10,000, at 1/2 manufacturer's price. Sample and circular mailed for 25c. Hamilton E. Towle, 176 Broadway, New York.

For Best Galvanized Iron Cornice Machines in the United States, for both straight and circular work, address Calvin Carr & Co., 26 Merwin St., Cleveland, Ohio.

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

Railway Turn Tables—Greenleaf's Patent. Drawings sent on application. Greenleaf Machine Works, Indianapolis, Ind.

Peck's Patent Drop Press. For circulars address the sole manufacturers, Milo, Peck & Co., New Haven, Ct.

All kinds of Presses and Dies. Bliss & Williams, successors to Mays & Bliss, 118 to 122 Plymouth St., Brooklyn. Send for Catalogue.

Brown's Coal Yard Quarry & Contractors' Apparatus for hoisting and conveying material by iron cable. W. D. Andrews & Bro., 414 Water st., N. Y. Presses, Dies, and Tinners' Tools. Conor & Mays, late Mays & Bliss, 4 to 8 Water st., opposite Fulton Ferry, Brooklyn, N. Y.

Over 1,000 Tanners, Paper-makers, Contractors, &c., use the Pumps of Heald, Sisco & Co. See advertisement.

To Ascertain where there will be a demand for new Machinery, mechanics, or manufacturers' supplies, see Manufacturing News of United States in Boston Commercial Bulletin. Terms \$4.00 a year.

Hydraulic Jacks and Presses, New or Second Hand, Bought and sold. Send for circular to E. Lyon, 470 Grand Street, New York.

For Hand Fire Engines, address Rumsey & Co., Seneca Falls, N. Y.

Over 800 different style Pumps for Tanners, Paper Makers, Fire Purposes, etc. Send for Catalogue. Rumsey & Co., Seneca Falls, N. Y.

Grist Mills, New Patents. Edward Harrison, New Haven, Conn.

Taft's Portable Hot Air Vapor and Shower Bathing Apparatus. Address Portable Bath Co., Sag Harbor, N. Y. Send for Circular.

Mining, Wrecking, Pumping, Drainage, or Irrigating Machinery, for sale or rent. See advertisement, Andrew's Patent, inside page.

For Steam Fire Engines, address R. J. Gould, Newark, N. J.

For Solid Wrought-iron Beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, etc.

Belting as is Belting—Best Philadelphia Oak Tanned. C. W. Arny, 801 and 803 Cherry Street, Philadelphia, Pa.

Patent Interlocking Grate Bars—Used and approved in 5000 furnaces, in the principal manufacturing in the United States. Superior to all others in durability, and economy of fuel. No economist can afford to do without them. Address Salamander Grate Bar Co., 32 Broadway, N. Y.

Asbestos and Silicate of Soda in large and small quantities. E. D. & W. A. French, 3rd & Vine Sts., Camden, N. J.

In the Wakefield Earth Closet are combined Health, Cleanliness and Comfort. Send to 28 Dey St., New York, for descriptive pamphlet.

Enameled and Tinned Hollow-Ware and job work of all kinds. Warranted to give satisfaction, by A. G. Patton, Troy, N. Y.

For Circular of the largest variety of Wood Planing and Mitre Dovetailing Machinery, send to A. Davis, Lowell, Mass.

Rubber Valves—Finest quality, cut at once for delivery; or moulded to order. Address, Gutta Percha & Rubber Mfg Co., 9 & 11 Park Place, New York.

Williamson's Road Steamer and Steam Plow, with Thomson's Tires. Address D. D. Williamson, 82 Broadway, N. Y., or Box 1808.

Boynton's Lightning Saws. The genuine \$500 challenge. Will cut five times as fast as an ax. A 6 foot cross cut and buck saw, \$6. E. M. Boynton, 80 Beekman Street, New York, Sole Proprietor.

Blake's Belt Studs. The best fastening for Leather or Rubber Belts. 40,000 Manufacturers use them. Greene, Tweed & Co., 18 Park Place, New York.

Hoisting Engines. Simplest, cheapest, and best. Send to John A. Lighthall, Beekman & Co., Office 5 Bowling Green, New York.

L. & J. W. Feuchtwanger, 55 Cedar St., New York, Manufacturers of Silicates, Soda and Potash, Soluble Glass, Importers of Chemicals and Drugs for Manufacturers' use.

New & Improved Bolt Forging Machines, J. R. Abbe, Prov., R. I.

The N. Y. Manuf'g Co., 21 Courtland St., N. Y., buy, sell, and manufacture Patented articles. Illustrated Catalogue, 48 pages, free.

Patent Rotary Engine; for all purposes, two to one hundred horse power; equal to any, for less price. Send for particulars and price list to John A. Lighthall, Beekman & Co., corner Inlay and Verona Streets, Brooklyn, N. Y.

The paper that meets the eye of manufacturers throughout the United States—Boston Bulletin, \$4 00 a year. Advertisements 17c. a line.

Best and Cheapest—The Jones Scale Works, Binghamton, N. Y.

New Pat. Quick and easy way of Graining. First class imitations of Oak, Walnut, Rosewood, &c. Send stamp for circular. J. J. Callow, Cleveland, Ohio.

Answers to Correspondents.

SPECIAL NOTE.—This column is designed for the general interest and instruction of our readers, not for gratuitous replies to questions of a purely business or personal nature. We will publish such inquiries, however, when paid for as advertisements at 100 a line, under the head of "Business and Personal." ALL reference to back numbers must be by volume and page.

T. N. L., of Va.—The mineral you send is ferruginous quartz—quartz containing iron.

BLACKING.—B. B. can find the information he seeks on page 170 of Vol. XXIV. of the SCIENTIFIC AMERICAN.

F. F. H., of N. Y., has omitted something in his letter, so that it is unintelligible.

S. L. A. M., of Ga.—We know of nothing that will remove the outer portion of the moss without destroying the texture of the rest.

CEMENT FOR CAST IRON.—Answer to query 6, February 17, 1872. If C. C. will take six parts of pulverized clay and one part of iron filings, make into a paste with boiling linseed oil, and apply hot, he will thus render his cracked vessels watertight.—J. J. M., of Pa.

CEMENT FOR CAST IRON.—C. C., query 6, February 17, can make this by mixing equal parts of salt and sifted ashes, and moistening them with water. Drive the cement into the crack with a mallet, and dry slowly over a fire.—M. L. B., of N. Y.

O. S., No. 14, February 24, 1872, will find a remedy for leaky roofs, whether of felt or other material, in the application of internal heat to the eaves, trough, and conductor, as may be seen upon my roof, No. 44 Whitesboro street, Utica, N. Y. Call and see how it works.—R. B. M.

W. E., of N. Y., is troubled with weak knees and exudation of the sinovial fluid, so that for their support he requires elastic bands.

L. P., of Mass., sends us a fragment of charred hair or wool, which has been used as steam packing, with the inquiry whether there is danger of fire from steam heating apparatus, in contact with combustibles. We reply that with high steam we think there is. With low steam we think there is not, unless substances liable to spontaneous combustion are laid against the pipes or heating racks.

L. H. P., of Chicago.—We do not think the accident of fire, occurring under circumstances as you describe them, was caused by the steam pipes. Our opinions upon this subject generally have already been fully expressed in recent issues, and we do not wish to reopen the discussion at present.

CEMENT FOR CAST IRON.—In answer to query 6, February 17, take one part fire clay and one part iron filings, mixed to the right consistency with muriatic acid diluted with a little water. The longer it stands before being used the better.—M. H. K., of N. J.

ENGINE POWER FOR CIRCULAR SAWS.—To NEMO, query 16, January 20: A ten horse engine driving a circular saw, cutting with the grain of the wood, will be equal to a fifteen horse engine cutting against the grain. If he will try it, the result will both satisfy and surprise him.—E. B. T., of Va.

CEMENT FOR CAST IRON.—To C. C., query 6, February 17.

If the crack be in the bottom of the pot, drill a hole at each extreme end of the crack, to stop further cracking, plug rivet the holes with copper, and, with fine iron filings saturated with urine, calk the crack. I have tried this method on oil pots on board whaleships, with success.—C. F. of Mass.

SAND IN DRIVE WELL.—In answer to query 24, February 17, let W. L. take a three quarter inch pipe and run it down inside his pipe to the sand; put on a force pump, and force water down. The sand will come out at the top of his pipe. Pump till the water is clear.—L. C. M., of Mass.

BORING CONICAL CYLINDER.—On page 122, of Vol. XXVI., No. 8, February 17, I. F. W. asks how he can bore out a cylinder forty inches long and twelve inches in diameter, diminishing one eighth of an inch in that length, with a boring bar ten feet long. If he will throw his bar three sixteenths of an inch out of center next to the face plate, he can accomplish what he desires, provided his boring bar has a feed screw on it, and he bores from the small end of the cylinder.—G. C.

G. D. B., of Pa., says: Enclosed you will find a specimen of something which I dipped out of a creek. It comes out in considerable quantities, and covers the whole bottom of the creek for fifteen or twenty rods from the place where it first shows, which is under a mill dam. A man that worked in the mill over twenty years ago says they used to get it on their clothes, and it could not be washed out. We have lately put in steam, and it gets into the boiler and bothers us some. Would you please tell me what it is?—G. D. B.—Answer: It is hydrous oxide of iron mixed with earthy matter. Is used somewhat for polishing purposes.

TEMPERING SPRINGS.—Judging from the character of answers to queries in your columns, as to the best method of tempering springs, and from other observations, I conclude that a great many mechanics think it necessary to repeat the process of drawing two or three times in order to get just the right temper. This is an erroneous idea. Once drawing to the proper color, after hardening in water, is sufficient, and any repetition is a waste of time and fuel; as, if the degree of heat applied does not exceed that required to obtain the right color in the first instance, the temper of the spring will remain the same after any number of subsequent heatings.—G. L. B., of Me.

F. C. S., of R. I.—Sulphur, like other remedies, should only be used as the choice of a lesser evil over a greater one. As an application for dandruff, which is the result of a diseased state of the skin, we have no doubt of its occasional efficacy. Like other remedies, it sometimes effects a cure, and when used in the proper manner, no injurious effects upon the hair need be feared. When sulphur is combined with metals, as lead for instance (with which it is often used as a hair restorer) the metal may by absorption produce ill effects upon the general health.

COMPOUND GEARS FOR SCREW CUTTING.—Permit me to say a few words in defence of the rule given by C. F., of N. J. I have made made my mind thoroughly familiar with its use, having composed indexes for different lathes, some of them containing over one hundred common and useful threads; and therefore I feel that on this subject I can speak with authority. This rule supplies a want long felt in machine shops, a rule which would at once and to a certainty tell whether a lathe would cut a certain thread. Let any one thoroughly master that rule, and he will be convinced of its merits. J. P. M. C., in condemning it, showed that he neither understood it nor gave it a practical trial. His objection of its taking so much time to work by is not a good one. I want only from one to three minutes, according to the fraction of thread. Now a word about the rule, which I have used for years, and which is the common rule all over the country, but which, though it is good so far as it goes, is often of no value whatever in the cutting of fractional threads, owing to the number of threads which can be cut by its use being extremely limited; while by the rule of C. F. there is almost no end to the number. Let J. P. M. C. work a few years in shops where jobbing of all kinds is done, where fractional threads are a common thing, and my word for it, he will find, as I have done, that the rule he gives is as far behind the requirements of the age, as the engine lathe of to-day is in advance of the hand tool of our fathers. He will then, instead of assuming superiority, indulge a humble and contrite spirit, and with others send thanks to C. F. and the SCIENTIFIC AMERICAN.—C. D., of Conn.

J. G., of N. J.—The nascent state of hydrogen or other gas is the state (by some thought an allotropic state) which the gas has at the moment of its liberation, either by electrolysis or ordinary chemical action, in which state gases act much more powerfully in combining than when once liberated and isolated. You will see therefore that this state exists in hydrogen at the moment of its liberation from combination, and that no particular process can be given for its production. A convenient way to illustrate the increased power of hydrogen at the instant of its liberation is to allow the gas, as produced from the decomposition of water by electrolysis, to pass into platinum sponge. The sponge absorbs it, and when placed in sulphate of silver, precipitates metallic silver, which ordinary free hydrogen will not do.

FRICION GEAR FOR SCREW CUTTING.—To E. C. J., query 2, February, 1872. You cannot cut screws by friction gear, with sufficient accuracy for any purpose, except wooden screws. These should be finished with the lat cut.—J. E. G., of Mo.

POUNDRING OF PISTON.—I have noticed in "Notes and Queries" considerable discussion of the piston pounding question, and various theories have been advanced. I have often removed the trouble by setting up the springs in my piston packing, thereby preventing the shaking back and forth at every change of the direction of motion.—E. L., of N. Y.

Declined.

Communications upon the following subjects have been received and examined by the Editor, but their publication is respectfully declined:

- ADVERTISING.—L. K. F.
BOON TO THE TRAVELLING PUBLIC.—H.
BUILDERS' HARDWARE.—A. T. S.
CLAPBOARDING.—E. S. W.
MODELS AT THE PATENT OFFICE.—A.
NATIONAL DEBT.—J. R. F.
ORIGIN OF DISEASE.—A. B.
PATENT SYSTEM.—A. S. L.
ROTARY ENGINE.—G. R. W.
SUN SPOTS.—J. B.
WEATHERBOARDING.—J. L. G.
WILD TEA.—G. Z.
ANSWERS.—S. T.—O. A. B.—H. J. C.—D. H. N.—M. M.—W. E.—J. K. B.—D. O. T.
NOTES AND QUERIES.—G. A.—F. H. F.—F. H. A.—E. F. G.—J. M.—C. M.—G. W. M.—A. K.—R. M.—L. D. M.—D. B. H.

Inventions Patented in England by Americans.

- From January 31 to February 7, 1872, inclusive.
[Compiled from the Commissioners of Patents' Journal.]
SEWING MACHINE.—Howe Machine Company, Bridgeport, Conn.
SMELTING MECHANISM.—E. P. Terrell, D. B. Allen, J. Enoch, West Liberty, O.
SMELTING FURNACE.—S. W. Harris, Hudson, N. Y.
WEIGHING MACHINE.—A. H. Emery, New York city.