

Business and Personal.

cutting the same to the foot. The plowshare is made of cast iron, and by its peculiar shape and construction, it can be made without a land side plate.

CLOTHES BELLETS.—Daniel Kelloz, Ypsilanti, Mich.—The nature of this invention relates to the cleansing of clothes by circulating boiling water through them.

HORSE BRUSHES.—W. W. McKay, Oskola, Iowa.—This invention relates to improvements in horse brushes, whereby it is designed to provide a rotating brush, to which motion may be readily communicated by hand, and so arranged as to admit of the substitution of one brush or comb for another readily.

PRESERVING WOOD.—Nicholas G. Szerebney has taken an English patent for preserving wood, as follows: A solution is made of 10 lbs. of powdered potassa and 40 lbs. of powdered lime in 30 gallons of boiling water, and another of 150 gallons of cold water and 40 lbs. of sulphuric acid.

WELDING IRON.—William Bredice Adams, the well known English engineer, has taken out a patent in England for welding iron, the chief points of which are, that he first makes the surfaces to be joined perfectly true, clean, and close fitting, by planing or otherwise, and then heats them by the aid of jets of gas and air supplied under pressure.

DRESSING MILLSTONES.—Robert Young, of Glasgow, Scotland, has taken out an English patent for machinery for leveling and dressing millstones by the aid of diamond or other suitable cutters, which have a recircular motion only given to them.

HEATING BLOCKS.—Louis Mendenhoff, of St. Mary's Ave, has taken out an English patent, as a communication from Nicolaus Schroder, of Greentzsch, Rhenish Prussia, for compositions for forming blocks to be used for building purposes.

PRESERVING WOOD.—Wm. R. Lake, as the agent of Segismund Beer, of New York city, has taken out an English patent for a method of preserving wood by treating it with a boiling solution of borax, the object being to remove the perishable matters without injuring the woody substance.

Answers to Correspondents.

CORRESPONDENTS who expect to receive answers to their letters must, in all cases, sign their names. We have a right to know those who send information from us; beside, as sometimes happens, we may prefer to address correspondents by mail.

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 said for us advertisements at \$2.50 a line, under the head of "Business and Personal."

References to back numbers should be by volume and page.

William Mason, of Oregon. Thirty nine dollars received of Wells, Fargo & Co., October 8, 1868, said to have been sent by the above. No advice accompany the money; what is it for?

T. J. M., of Ontario.—Neither Habbitt metal or any composition of metals for bearings will so well suit your case as boxes made of hard maple. These can be adapted to the shaft by the use of oil and plum-bago. This composition will give a surface for shaft journals fully equal to that of the best anti-friction metals.

N. H. D., of Mich.—A hollow iron bar containing the same amount of metal as a solid one, and of the same extreme length would resist a greater strain, if suspended by its ends and the weight applied between, than the solid bar. But a solid bar would resist a greater strain of tension or twisting, or of rupture by being drawn longitudinally apart, than a hollow one of the same diameter, as is evident by comparing a one inch bar of wrought iron and a gas pipe of similar diameter.

H. R. P., of Mass.—A pan of water set upon a hot stove will sometimes commence and continue cooking for a while; why is it? Ans.—The heat generates vapor of water, or steam at the bottom which in expanding between the stratum of water and the bottom of the pan, reacts upon it and sets it to rocking, provided the bottom is not perfectly flat. The sudden expansion of the cold metal of the pan might also be supposed to account for the fact, vide the old experiment of a hot bar of iron laid across two edges of cold metal described in text-books or physics. The matter you claim as a discovery, we cannot notice unless you transmit to us the evidence that you are the discoverer, and the methods by which you demonstrate the fact.

J. C. S., of Mass., writes us to ascertain the chemical process by which cotton is separated from wool, which he says is well known to manufacturers in this country and in Europe. Will any of our correspondents give us the information?

A. G. C., of—To make iron combine with sulphur you should first heat the iron. It may be successfully done, however, by projecting into a red hot crucible, little by little, a mixture of sulphur and iron filings, maintaining all the while a high temperature. When all has been put in the crucible it should be covered and the mass heated until it fuses.

R. B., of N. J.—There are patent signals which would be very useful to notify passengers when approaching stations, and it is the fault of railroad companies that such signals are not in use.

G. C. of Ohio.—A State court has no jurisdiction in patent causes where the trial is for infringement, but if a fraud has been practiced upon you, you can commence suit in a state court.

R. A., of Pa.—If a party has been using your invention, the very fact of such use is good evidence of its utility, and would assist you in maintaining a claim for damages.

C. and P., of Ky.—It is a frequent occurrence to receive electric sparks from large belts running at high speed. Those you described had probably no connection with the meteoric shower occurring at the time.

H. B. C., of Pa., writes us that iron turnings in Pittsburgh are worth from fifteen to eighteen dollars per gross ton, delivered at the iron mills for manufacture.

C., of Mass.—The concave lens of an opera glass, only produces sufficient divergence in the rays conveyed by the convex lens that distinct vision is produced. Being placed within the focal distance of the convex lens, no inversion takes place.

B. F. K., of N. Y.—Soapstone is found at Grafton, Athens, Westfield, and Marlborough, Vt., and in many other places, in N. H., Mass., N. C., Md., and Va. It can be made into slate pencils by sawing.

The Charge for Insertion under this head is One Dollar a Line. If the Notices exceed Four Lines, an Extra Charge will be made.

Manufacturers and dealers in farming implements should advertise in the Mobile, Ala., Weekly Register. See advertisement, back page.

Francis & Lourel, 45 Maiden Lane, have a fine assortment of diaries and daily journals for the new year.

Manufacturers of punches please send address to Geo. C. Wilder, Manhattan, Kansas.

Water-power, with grist & saw mill, 90 miles from N. Y., for sale. Good location for paper mill or manufactory. H. Stewart, Stroudsburg, Pa. Inventors, master mechanics, and machinists who wish to keep posted on the doings of manufacturers in every part of the United States, should read the Boston Commercial Bulletin's special reports. Bulletin, \$4 a year.

For first-class white oak plow handles address Clute, Van Do Mark & Co., Waterloo, N. Y.

Lead pipe, sheet and bar. For a good article address Bailey, Farrell & Co., Pittsburgh, Pa.

Don't use green lumber. To dry it, in 23 days, for \$1 per M, address Superheated Steam, 125 Fulton st., N. Y. Dries all substances.

Manufacturers Attention. An eligible location in a large and growing town near New York, on deep tide water, and very accessible, will be given to a reliable manufacturer company who will erect buildings for manufacturing purposes. Address M. E. Mead, Durler Depot, Ct.

Stimson's velocipede—two, three, or four wheeled—power equal, applied to best advantage, balances itself, runs up heavy grades, in heavy sand, or mud, on snow or ice. Patented in Ontario and Quebec, United States and European Patents pending through the Scientific American Patent Agency. James Stimson, M.D., St. George, Brent Co. Ont., Can. Fire-arm patent for sale.—The patent for breech-loading fire-arm, issued to Robert E. Stephens, June 11, 1867. A new and useful improvement. For terms, address C. Legge, box 763, New York Postoffice.

J. J. White, Newark, N. J., will make and introduce to the trade all descriptions of sheet-iron, cast metal small wares, dies and tools for all kinds of cutting and stamping patterns, etc., etc., for new and experimental work.

For Olmsted's offer, described in No. 26, last volume, SCIENTIFIC AMERICAN, address L. H. Olmsted, No. 1 Center st., New York.

Peck's patent drop press. For circulars, address the sole manufacturers, Milo Peck & Co., New Haven, Ct.

Thomas James, No. 2 Coenties Slip, New York, wishes to obtain the address of a manufacturer of iron pipe lined with glass.

Piano makers should advertise in the Mobile, Ala., Weekly Register. The musical, art, and dramatic columns, make it a great favorite with the ladies. Sewing-machine manufacturers can do no medium equal to it for advertising their machines.

Wanted. A good man, thoroughly posted in the working of spoke and wheel-making machinery, as foreman in a wheel factory at Marietta, Ohio. A good salary will be paid to one who can come well recommended. Address F. W. Minshall, Sec., Postoffice box 264, Marietta, Ohio. See A. S. & J. Gear & Co.'s advertisement elsewhere. Keep posted.

For descriptive circular of the best grate bar in use, address Hutchinson & Lawrence, No. 8 Day st., New York.

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

Portable pumping machinery to rent, of any capacity desired and pass sand and gravel without injury. W. D. Andrews & Brother, 414 Water st., New York.

N. C. Stiles' pat. punching and drop presses, Middletown, Ct. Prang's American chromos for sale at all respectable art stores. Catalogues mailed free by L. Prang & Co., Boston.

The condition of affairs in the Southern States is of deep interest to business men now. They should read a reliable journal from a central point there. The Mobile Register, Daily or Weekly, is a most excellent news and commercial paper. Subscribe for it. See advertisement outside.

Winans' boiler powder, N. Y., removes and prevents incrustations without injury or foaming; 12 years in use. Beware of imitations.

The paper that meets the eye of all the leading manufacturers throughout the United States.—The Boston Bulletin.

Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING DECEMBER 15, 1868.

Reported Officially for the Scientific American.

SCHEDULE OF PATENT OFFICE FEES: On filing each caveat \$1.00 On filing each application for a Patent (seventeen years) \$5.00 On issuing each original Patent \$20.00 On appeal to Commissioner of Patents \$20.00 On application for Reissue \$20.00 On application for Extension of Patent \$20.00 On granting the Extension \$20.00 On filing a Disclaimer \$10.00 On filing application for Design (three and a half years) \$10.00 On filing application for Design (seven years) \$10.00 On filing application for design (fourteen years) \$10.00

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$500 on application.

Patents and Patent Claims.—The number of patents issued weekly having become so great, with a probability of a continual increase, has decided us to publish in future, other and more interesting matter in place of the Claims. The Claims have occupied from three to four pages a week, and are believed to be of interest to only a comparative few of our readers. The publication of the names of inventors, and title of their inventions, will be continued; and, also, as heretofore, a brief description of the most important inventions. We have made such arrangements that we are not only prepared to furnish copies of Claims, but full Specifications at the annexed prices:

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. 3, 1866, at which time the Patent Office commenced printing them \$1-25 Official 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.

84,851.—SLIDE FOR HANGING UPRIGHT SAWS.—Ashbel P. Burlew, St. John, Canada.

84,852.—SIDE SCRAPER FOR WELLS. Elias Beach, Titusville, Pa.

84,853.—OIL INJECTOR FOR STEAM AND OTHER ENGINERY. Robert Brayton, Fremont, Ohio.

84,854.—INSTRUMENT FOR ACCUPUNCTURE.—Anson R. Brown, M. D., Abiona, Mich.

84,855.—MODE OF PRESERVING BAIT FOR FISHING.—Edward E. Burnham (assignor to himself and George Brown), Gloucester, Mass.

84,856.—ROOFING COMPOSITION.—Berk Capron, Lee Center, N. Y.

84,857.—HARVESTER RAKE.—R. Carlkuff (assignor to himself and P. H. Wilson), Lewisburg, Pa.

84,858.—CHURN.—James Carleton, Willa Walla, Washington Territory.

84,859.—FIRE SHIELD. John C. Clarke, La Grange, Mich.

84,860.—JAW CUTTING SHEARS.—L. D. Craig, Nevada City, Cal.

84,861.—HEEL FOR BOOTS AND SHOES.—Albert O. Crane, Boston, Mass.

84,862.—BOOT JACK.—Joseph Darden, Washington, D. C.

84,863.—BRICK MACHINE.—James C. Denn, Chicago, Ill.

84,864.—GASKET PACKING FOR STEAM AND OTHER ENGINERY.—Byron, Denmore, New York city.

84,865.—GAME OF COLOURS. Charles H. Douglas, Hartford, Conn.

84,866.—PROCESS OF SCREENING CHARCOAL.—J. S. Evans, Irondale, Me.

84,867.—COMPOUND FOR DESTROYING INSECTS.—Wm. R. Fairbairn, Tiddeletownship, Ill.

84,868.—METHOD OF ATTACHING KNOBS TO THEIR SPINDLES.—Wm. A. Fenn, Waleon, N. Y.

84,869.—BLANK BOOK.—Jerman Fischer, Chicago, Ill.

84,870.—MACHINE FOR DISTRIBUTING FERTILIZERS. John F. Fisher, Greenastle, Pa., assignor to himself and Daniel Breed, Washington, D. C.

84,871.—SHOEMAKERS' BENCH.—David Fisk, and J. M. Blodgett, Clyde, N. Y.

84,872.—LOOM.—Wm. T. Flinn (assignor to Barton H. Jencks), Bredesburgh, Pa.

84,873.—BEATING CREAT.—Charles S. H. Foster, Deer Isle, Me.

84,874.—MENTHUAL RECEIVER.—Theodore A. Ganiage, Boston, Mass.

84,875.—PIPE COUPLING.—Hachadool P. Garbadian, Philadelphia, Pa.

84,876.—CORN HUSKER.—J. Irving Gordon, Sing Sing, N. Y. Antedated Dec. 11, 1858.

84,877.—TILE FOR FLOORS, SIDEWALKS, ETC.—John Gray, San Francisco, Cal.

84,878.—MODE OF FASTENING INDIA-RUBBER TIRES ON CAR-RIDGE WHEELS.—J. Ashton Greer, Brooklyn, N. Y.

84,879.—SHUKY HARROW.—E. W. Hewitt, Pucatonia, Ill.

84,880.—SPIRIT LEVEL.—Collins F. Hill, Hamilton, Ohio. Antedated Dec. 3, 1868.

84,881.—METALLIC LATH.—Isaac V. Holmes, New York city.

84,882.—MANUFACTURE OF FANS.—Edmund S. Hunt, Weymouth, Mass.

84,883.—ROCK DRILL.—Michael Keefer, Millstone Point, Md.

84,884.—DOVETAILING MACHINE.—Charles F. Kidnie, Washington, D. C.

84,885.—FISHING TACKLE.—J. D. Leach, and Sabin Hutchings, Fenobscot, Me.

84,886.—REVOLVING PINE HOOP.—J. D. Leach, and Sabin Hutchings, Fenobscot, Me.

84,887.—HARVESTER.—Samuel K. Lighter and Joseph Curtis, Hamilton, Ohio. Antedated Dec. 3, 1868.

84,888.—APPARATUS FOR COOLING LIQUIDS ON DRAFT.—Joseph Link, United States Army.

84,889.—GAS HEATER.—David H. Lowe, Boston, Mass.

84,890.—COVER FOR FUEL MAGAZINE IN BASE BURNING STORES.—Robert Macy (assignor to John H. Keyser), New York city.

84,891.—SEAT-BOLT FOR RAILWAY CARS.—Peter H. Mann, and Orville P. Terry, Albany, N. Y., assignors to Andrew B. Ulmer, and G. R. Kader.

84,892.—WAGON BOX.—Thomas H. Marey, Windham, Ohio.

84,893.—PROCESS OF CURING HAMS, BEEF, AND OTHER MEATS.—Oliver M. Martin, Ann Arbor, Mich.

84,894.—PLATE OR SALVER.—H. McManus and John B. Hatting, New York city.

84,895.—WHEAT DRILL.—Daniel McSherry, Dayton, Ohio.

84,896.—RAILWAY SWITCH SIGNAL.—I. Ferguson Morsell, Stamford, Conn.

84,897.—STAVE MACHINE.—Charles Mardock, Hartford, Conn.

84,898.—WATER MACHINE.—Daniel F. Myers, New York city.

84,899.—FASTENING FOR CORSETS.—Peter H. Niles and Frank W. Marston, Boston, Mass. Antedated Dec. 3, 1868.

84,900.—GROMMET.—Joseph W. Norcross, Boston, Mass. Antedated Nov. 30, 1858.

84,901.—BRICK MACHINE.—John W. Pease, (assignor to himself, Leonard Willets and Isaac Willets), Belmont, N. Y.

84,902.—BUTTON HOLE CUTTER.—William S. Porter, Boston, Mass.

84,903.—CLOTH MEASURING APPARATUS.—John Edwin Race and Aaron Smith, Chicago, Ill.

84,904.—MACHINE FOR WASHING PRINTERS' INK-ROLLERS.—O. H. Reed and Asa L. Currier, Washington, D. C.

84,905.—APPARATUS FOR SHEARING SHEEP.—Hiram A. Reid, Beaver Dam, Wis.

84,906.—CIGAR CASE.—Selden N. Risley, Brooklyn, N. Y.

84,907.—MACHINE FOR RIVETING HLGES.—Henry M. Ritter, Cornington, Ky.

84,908.—BAKING PAN.—Sullivan W. Rogers, Hatwich, Mass.

84,909.—CLAMP FOR SUSPENDING PASTE-BOARD AND OTHER SUBSTANCES.—Edwin H. Saupson, Boston, Mass.

84,910.—HAND CULTIVATOR.—John Scheiblin and John Heitzman, Philadelphia, Pa.

84,911.—CULTIVATOR AND PLOW.—Samuel F. Seely, Whitford, Mech. Antedated Dec. 11, 1868.

84,912.—PUMPING ENGINE.—Thomas Shaw, Philadelphia, Pa., assignor to himself and Philip S. Justice.

84,913.—WINDOW-SHUTTER.—S. M. Sherman, Fort Dodge, Iowa.

84,914.—AUTOMATIC STOP COCK FOR GAS BURNERS.—George E. Smith, San Francisco, Cal.

84,915.—HOT IRONING MACHINE.—George W. Stout and John C. Richardson, Newark, N. J., assignor to themselves, James Duff, Jr., and S. R. Howler, assignors to said Stout, James H. Frantice, said Davis, Jr., and Hawley.

84,916.—SAW GRINDER.—Elias Strange, Elias W. Strange, and Emerson C. Straube, Taunton, Mass.

84,917.—HORSE RAKE.—Edwin J. Toof, Fort Madison, Iowa.

84,918.—WASH-ROLLER.—Charles N. Tyler, New York city.

84,919.—CLOTHES LINE REEL.—John Valentine and Henry B. Stevens, Buffalo, N. Y.

84,920.—BASE BURNING STOVE.—Henry B. Van Benthuysen, Emporium, Penn.

84,921.—MILK CAN.—H. M. Vietz, Carlisle, Ohio.

84,922.—BREECH-LOADING FIRE-ARM.—Ernest Von Jensen, New York city.

84,923.—HYDRAULIC WASH BOTTLER.—J. B. Waring, Brooklyn, N. Y., assignor to Hiram Daryea, New York city, assignor to E. W. Dickson, Chelsea, Vt.

84,924.—WASHING MACHINE.—Aretas A. Wilder and John Wilder, Detroit, Mich.

84,925.—BELT PATENER.—G. Greenleaf Wilson, Nashua, N. H.

84,926.—CLIPPING SHEARS.—John C. Wilson, Adam Walker, and John Foster, New York city.

84,927.—HARVESTER.—George W. N. Yost, Corty, Pa., assignor to the Cory Machine Company.

84,928.—CLOTHES DRYER.—Wm. H. Acker/Tarrytown, N. Y.

84,929.—BREECH-LOADING FIRE-ARM.—Ethan Allen, Worcester, Mass.

84,930.—SROVEPIPE DAMPER.—Levi O. Allen, Gardiner, Me.

84,931.—CULTIVATOR.—Clark Alvord, Westford, Wis.

84,932.—MODE OF PLATING SCALDS WITH HARD RUBBER, FOR THE MANUFACTURE OF CUTLERY, AND FOR OTHER PURPOSES.—Ferdie Beale, New Haven, Conn.

84,933.—CAR COUPLING.—W. G. Bell, Pittsburgh, Pa.

84,934.—MODE OF RECOVERING USEFUL PRODUCTS FROM THE WASTE LIQUOR OF GREATS FACTORIES.—Frederick Bibo, and William Selphafer, Frankford, Pa.

84,935.—CULTIVATOR.—Joseph J. Brinton, Thornbury town ship, Pa.

84,936.—CORN PLANTER.—John D. Chambers (assignor to himself and Erasmus D. Rowland), Carlisle, Me.

84,937.—HEAD BLOCK.—John F. Cook (assignor to George F. Page, Joseph Roberts and George L. McCab), Baltimore, Md.

84,938.—BREECH-LOADING FIRE-ARM.—Joseph R. Cooper, Birmingham, England.

84,939.—HOISTING AND DUMPING APPARATUS.—W. B. Culver, Scranton, Pa.

84,940.—AXLE.—Edward Finn, Berlin, Wis.