

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 seek information from us...

SPECIAL NOTE.—This column is destined for the general interest and instruction of our readers, not for gratuitous replies to questions of a purely business or personal nature.

Reference to back numbers should be by volume and page.

L. L., of Ohio.—The notation given in Silliman's Physics with reference to pitch of sounds is rather puzzling. You will understand it, however, by the explanation that C is identical with C, and C with C, etc., also bearing in mind that the vibrations spoken of are simple vibrations...

O. L. L., of Me.—Having lately discussed the question of saw filing at length in our columns, we prefer not to re-open the subject at present.

C. T., of Mass.—From your description we do not think the blister on the boiler you describe renders it dangerous at the present time. It is, however, a subject upon which we do not like to give advice at this distance.

G. V. P., of —.—Directions for obtaining the true sidereal time and computing the solar time, cannot be given in the space we can allot to your query. You will find the subject simply and concisely treated in "Norton's Astronomy," published by John Wiley & Son, New York.

T. C., of Ky.—The edges of spectacle glasses may be smoothed and polished after grinding by using a wooden wheel fed with pumice stone and water for smoothing, and putty and water for polishing.

C. D., of —.—Gum shellac is a good cement for broken queensware. It should be melted, and applied thinly to the heated broken edges, which should then be pressed together and allowed to cool.

J. O. B., of —.—A shallow stratum of fluid will evaporate under a given heat applied at the bottom, faster than a deep one.

C. H. C., of Mass.—Paint over the interior of your water tank with asphaltum. It will not injure your boiler.

O. S. M., of Va.—In so much as the oxide of zinc enters the human system it is hurtful. Of course care and cleanliness reduces the liability of poisoning in the manufacture and use of any kind of paint. Zinc is not as directly injurious as lead paint.

S. T. S., of Ohio.—We published in our last issue the specification of Dr. Adams' patent for electro-plating with nickel. Ormolu articles are made of brass, and being gilt, are colored by first rubbing the articles with a scratch brush—but not so hard as when it is intended to burnish them—exposing them to a moderate heat, and when partially cooled, brushing them over with a mixture of pulverized hematite, alum, and common salt, leaving the burnished parts untouched.

J. C. K., of Pa.—The distance to which sound will travel depends upon the original intensity and the density of the medium which conveys it. Two voices pitched upon the same key and each producing a sound of given intensity, will unite to produce a sound of double the intensity of that produced by either voice alone, provided they are so placed with reference to each other that the sound waves do not interfere with each other.

H. H. T., of Pa.—We think superheating your steam after carrying it five or six hundred feet in pipe, must prove beneficial. Unless such a pipe was felted, or covered by some other non-conducting material, considerable condensation must inevitably ensue.

J. T. S.—There is no work specially on silvering glass in the English language that we know of. You will find articles on the subject in Dr. Ure's "Dictionary of Arts and Manufactures," Muspratt's Chemistry, and other technical works.

M. H. K.—The positions taken in the pamphlet you send us on the subject of steam boiler explosions, are, as you say, queer, so queer that we do not think it worth while to burden our columns with further criticism upon them.

Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING May 3, 1870.

Reported Officially for the Scientific American

Table with 2 columns: Fee description and Amount. Includes SCHEDULE OF PATENT OFFICE FEES: On each caveat \$10, On filing each application for a Patent (seventeen years) \$15, etc.

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.

- 102,465.—TIN GUTTER MACHINE.—Jas. N. Adams, Chillicothe, Mo.
102,466.—TIN TUBING MACHINE.—Jas. N. Adams, Chillicothe, Mo.
102,467.—STAVE DRESSING MACHINE.—M. Pascal Adams, Pittsburgh, Pa.
102,468.—DIE FOR DRAWING WIRE.—J. D. Alvord, Bridgeport, Conn.

- 102,469.—GUIDE FOR SEWING MACHINE.—J. S. Alter, Leavenworth, Kansas.
102,470.—STRAW CUTTER.—Julius Ambrun, Leavenworth, Kansas.
102,471.—NEEDLE CASE.—Wm. Avery and Albert Fenton, Hudditch, England, assignors to William Avery.
102,472.—WASHING MACHINE.—William Badger, Hastings-on-Hudson, N. Y.
102,473.—FASTENER FOR BEDSTEADS, TABLES, ETC.—Jas. M. Baird, Wheeling, West Va., assignor to himself, John McLure, Jas. W. Ward, and John B. McLure.
102,474.—SANDPAPER HOLDER.—Joseph Barker, Chicago, Ill.
102,475.—DEVICE FOR ATTACHING PICKER TO PICKER STAFF.—John D. Barrie, Lawrence, Mass.
102,476.—ORE SEPARATOR.—Thomas Bates, Pinos Altos, New Mexico Territory.
102,477.—WASHING MACHINE.—Charles Bean and Suel Loeger, East Douglass, Mass.
102,478.—VENTILATOR FOR WINDOWS.—William C. Betts, Brooklyn, N. Y.
102,479.—POTATO DIGGER.—Joseph H. Billmeyer, Raisin, Mich.
102,480.—EARTH CHAMBER VESSEL.—Wm. H. Bliss, Newport, R. I.
102,481.—CHURN.—Charles A. Boone, Shickshinny, Pa.
102,482.—RACK FOR CARS.—Albert Bridges, New York city.
102,483.—WORKING AND LOCKING RAILWAY SWITCH AND SIGNAL.—John Brunton, Kensington, England.
102,484.—PREPARING THE PITH OF CORNSTALKS FOR USE IN THE ARTS.—William M. Bryant, Alexandria, Va.
102,485.—FEED CUTTER.—Cornelius H. Cain, Dayton, Ohio.
102,486.—DIRECT ACTING ENGINE.—Adam Scott Cameron, New York city.
102,487.—CLAMP.—Charles B. Canfield, Oriskany, N. Y.
102,488.—FRUIT BASKET.—Lauren Carpenter, St. Joseph, Mich.
102,489.—DRAWER SLIDE.—John L. Chapman, West Roxbury, Mass.
102,490.—DEVICE FOR SECURING THE FEATURES OF A CORPSE IN PLACE.—Amos S. Chesebrough, Hartford, Conn.
102,491.—HORSE POWER.—Philo W. Clark, Oblong, N. Y.
102,492.—EXCAVATING APPARATUS.—Philo W. Clark, Oblong, N. Y.
102,493.—LIFTING JACK.—William Clark, Decatur, Ill.
102,494.—EARTH CLOSET.—Wm. R. C. Clark, New Orleans, La.
102,495.—EARTH CLOSET.—Wm. R. C. Clark, New Orleans, La.
102,496.—LIME KILN.—James Clarkson and Geo. W. Decker, Washington, D. C.
102,497.—CATTLE POKE.—Samuel P. Clemons, Dansville, N. Y.
102,498.—REVERSIBLE SEAT FOR RAILWAY CARS.—Thos. J. Close, Philadelphia, Pa.
102,499.—MATCH CASE.—Frank B. Coleman, Southampton, Mass.
102,500.—CAR COUPLING.—John Coleman, Lynchburg, Va.
102,501.—MANUFACTURE OF MALLEABLE IRON.—John J. G. Collins, Philadelphia, Pa.
102,502.—POT FOR SMELTING GLASS.—Roy Combs and Henry J. Leasure, Wheeling, West Va.
102,503.—APPARATUS FOR BLASTING LOGS.—Matthew Cooke, Sacramento City, Cal.
102,504.—HORSESHOE.—George Copeland, Denver, Colorado Territory.
102,505.—TAILORS' SCALE.—Wm. G. Cummins, Civil District No. 10, Tenn.
102,506.—LET-OFF MECHANISM FOR LOOM.—John Day, Paterson, N. J.
102,507.—COVER FOR KETTLES AND OTHER VESSELS.—E. K. Dean, Bangor, Me., assignor to Wm. C. Lovering, Taunton, Mass.
102,508.—PLOW GRINDER AND POLISHER.—Michael Devault, Charleston, Ill.
102,509.—CHURN.—J. L. Devol, Parkersburg, West Va.
102,510.—PUNCHING APPARATUS.—Thomas De Witt, Detroit, Mich., assignor to John T. Maxson, De Witt, Iowa.
102,511.—PUMP.—Thomas De Witt, Detroit, Mich., assignor to John T. Maxson, De Witt, Iowa.
102,512.—WASHING MACHINE.—Thomas De Witt, Detroit, Mich., assignor to John T. Maxson, De Witt, Iowa.
102,513.—PRUNING HOOK.—Andrew Downer, Hammondsville, Ohio.
102,514.—SPINDLE STEP CAP.—William F. Draper and Jos. B. Bancroft, Hopedale, Mass.
102,515.—SHAFT OR POLE COUPLING FOR CARRIAGES.—C. G. Dudley and Jacob Gulden, Key Port, N. J.
102,516.—STUMP EXTRACTOR.—James M. Eason, Charleston, S. C.
102,517.—MANSRING BARREL ATTACHMENT FOR WATCHES.—Ola L. Eliason, Salt Lake city, Utah Territory.
102,518.—CHURN.—Arthur H. Elliott, Albion, Mich.
102,519.—COFFEE CLEANING MACHINE.—William H. Elton, Baltimore, Md.
102,520.—SAW.—James E. Emerson, Trenton, N. J.
102,521.—STEAM BOILER FOR COOKING FOOD FOR STOCK.—William J. Estes, Penn township, Ill.
102,522.—SECTIONAL STEAM GENERATOR.—H. W. Evans, Philadelphia, Pa.
102,523.—CHURN.—Francis T. Fairchild, Sheboygan, Wis.
102,524.—COMBINED HAY AND PRUNING KNIFE.—John Fasig, West Salem, Ohio.
102,525.—HARVESTER RAKE.—V. H. Felt, Kendall, N. Y.
102,526.—BEEHIVE.—Charles Finn, Des Moines, Iowa.
102,527.—DUST RING FOR WATCH FRAME.—Jas. H. Flint, South Bend, Ind.
102,528.—TABLE LEAF SUPPORT.—Asa Forrest (assignor to himself and O. L. French), Moingona, Iowa.
102,529.—SETTING UP DEVICE FOR CIRCULAR KNITTING MACHINES.—William Franz and William Pope, Crestline, Ohio.
102,530.—LAP BOARD.—W. F. Gammel (assignor to himself and Jacob A. Wetble), Elizabeth, N. J.
102,531.—FASTENING TUBE IN GRAIN DRILLS.—Franklin Gardner, Carlisle, Pa.
102,532.—CORN HARVESTER.—M. A. Getzendaner, Polo, Ill.
102,533.—COOKING STOVE.—Henry G. Giles, Troy, N. Y.
102,534.—WORK HOLDER.—Jane E. Gilman, Hartford, Conn.
102,535.—SEEDING MACHINE.—M. L. Gorham, Rockford, Ill.
102,536.—EMBROIDERY HOLDER.—Henry Gundaker, Lancaster, Pa.
102,537.—SELF-ACTING MULE FOR SPINNING.—Wm. Hackley (assignor to himself and Charles T. Almy), Moosup, Conn.
102,538.—REVERSIBLE BUTT HINGE.—D. F. Hale, Chicopee, Mass.
102,539.—STOVE PIPE DAMPER.—Rich. M. Hermance, Halj Moon, assignor to Joseph B. Wilkinson, Troy, N. Y.
102,540.—SHOE BRUSH.—F. D. Holland (assignor to Henry J. Holland), Lewiston, Me.
102,541.—COTTON CHOPPER.—Wilson Holt, Dawson, Ga.
102,542.—SCAFFOLD.—E. R. Holzer, Philadelphia, Pa.
102,543.—CULTIVATOR PLOW.—Louis Homrighouse, Baltimore, Ohio.
102,544.—STUMP EXTRACTOR.—George L. Howland and Wm. M. Howland, Topsham, Me.
102,545.—WASHBOARD.—Saunders Hubbell, Jr., West Salem, Ohio.
102,546.—MANUFACTURE OF SOAP.—Charles Wager Hull, New York city.
102,547.—WEATHER STRIP.—J. H. Hull, Irasburg, Vt.
102,548.—CLOTHES-LINE HOLDER.—A. L. Hurtt, Monticello, Ind.
102,549.—TOBACCO ROLLER.—Chas. A. Jackson, Petersburg, Va.
102,550.—PROCESS FOR TEMPERING STEEL.—Jabez Jenkins, Philadelphia, Pa.
102,551.—LANTERN.—J. M. Jenness (assignor to himself, J. D. Jenness, and S. D. Jenness), Boston, Mass.
102,552.—LAMP BURNER.—J. H. Johnson, Newark, N. J., assignor to Holmes, Booth & Haydens, Waterbury, Conn.

- 102,553.—CAUL FOR LAYING VENEERS.—L. A. Johnson, New York city.
102,554.—DRY DOCK.—William Jones, New York city.
102,555.—SOLDERING FIRE-POT.—Elias W. Kimball, Hudson, N. Y.
102,556.—SUBMARINE TORPEDO.—W. R. King, Washington, D. C.
102,557.—SHOE FASTENING.—A. E. Kroger, Norwalk, Conn.
102,558.—COAL STOVE.—Joel Laforge and Jonathan T. Crane, Rahway, N. J.
102,559.—BOAT RUDDER.—Wm. C. Law, New York city.
102,560.—MACHINE FOR GRANULATING TOBACCO.—C. H. Lilienthal, Yorkers, N. Y.
102,561.—PRINTING-TELEGRAPH INSTRUMENT.—L. T. Lindsey, Jackson, Tenn.
102,562.—ELECTRO-MAGNETIC MOTOR.—L. T. Lindsey, Jackson, Tenn.
102,563.—POLICEMEN'S NIPPERS.—George Lutz, D. H. Rice, Michael Trenor, and Robert Chadwick, Columbus, Ohio.
102,564.—CORN PLANTER.—James W. Magers, Reinersville, Ohio.
102,565.—COMPOSITION FOR FINISHING WAX-LEATHER.—Patrick Maguire, New Boston, Mass.
102,566.—MANUFACTURE OF BOLTS.—Alexander Mailer (assignor to G. C. Bell and R. H. Plumb), Buffalo, N. Y.
102,567.—STREET MOISTENING COMPOUND.—Moritz Marcus, New York city.
102,568.—MACHINE FOR FOLDING POWDERS.—J. W. Maxwell, Louisville, Ky.
102,569.—FARM GATE.—John Mayben, Milroy, Pa.
102,570.—COMPOUND FOR DRESSING TEXTILE FABRICS.—John McGill, Boston, assignor to Benjamin S. Goodwin, Boston, and Hiram Whitney, Watertown, Mass.
102,571.—WATER MOTOR.—William McGinniss, Auburn township, Ohio.
102,572.—TUBE WELL.—James McMillan, Fairport, N. Y.
102,573.—BIRD HOUSE.—Henry Miller, Johnston, R. I.
102,574.—DOOR CLAMP.—Benjamin Moore, Hart, Mich.
102,575.—CORD-CATCH.—C. C. Moore, New York city.
102,576.—FENCE AND GATE.—Enoch Muirheid, Greenfield, Ohio.
102,577.—PLANING CHUCK.—Augustus Newell and Wm. Pim, Chicago, Ill.
102,578.—HORSE HAY RAKE.—George Notman, Deerfield, Ohio.
102,579.—ROSETTE FOR BRIDLES.—J. O. Brien, Geneseo, Ill.
102,580.—CARRIAGE HUB.—James O'Connor, Jackson, Mo.
102,581.—BOILER FURNACE.—J. A. T. Overend, San Francisco, Cal.
102,582.—FIRE EXTINGUISHER.—W. M. Parker, Boston, Mass.
102,583.—ANCHOR.—Gurney C. Pattison, Baltimore, Md.
102,584.—ANCHOR.—G. C. Pattison, Baltimore, Md.
102,585.—FLY TRAP.—Max Patzauer, New York city.
102,586.—SEWING MACHINE.—Rufus H. Peabody, Chelsea, Mass.
102,587.—BOBBIN FOR SPINNING, ETC.—Oliver Pearl, Lawrence, Mass.
102,588.—GRINDING MILL.—Walter Peck, Rockford, Ill.
102,589.—AUTOMATIC WAGON BRAKE.—Frank M. Pickerill, Indianapolis, Ind.
102,590.—HEATING AND VENTILATING ATTACHMENT FOR STOVES AND FIREPLACES.—Emily S. Potter and B. R. Potter, Boston, Mass.
102,591.—APPARATUS FOR POLISHING COFFEE, ETC.—J. T. Randall (assignor to F. W. Elder & Co.), Baltimore, Md.
102,592.—OFFICE-REGISTER AND DIRECTORY.—Henry Rentchler, Belleville, Ill.
102,593.—CORN SHELLER.—J. W. Ricker, Chelsea, Mass.
102,594.—BALL TOY GUN.—Charles Robinson, Boston, Mass.
102,595.—WATER COOLER.—John Rutter, West Chester, Pa.
102,596.—HEMP BRAKE.—George Rymel, Paris, Ky.
102,597.—HOISTING APPARATUS.—Hans A. Schneekloth, New York city.
102,598.—BARLEY OR GAVEL FORK.—D. P. Sharp, Ithaca, N. Y.
102,599.—DITCHING PLOW.—I. S. Sheets, Troy, Ohio.
102,600.—LOCK NUT.—E. R. Shepard, Scranton, Pa.
102,601.—RAILWAY RAIL.—E. R. Shepard, Scranton, Pa.
102,602.—COMPOUND RAILWAY RAIL.—E. R. Shepard, Scranton, Pa.
102,603.—BOB-SLED.—S. C. Shepard, Richfield, Ohio.
102,604.—SASH HOLDER.—R. L. Sibbet, New Kingston, Pa.
102,605.—CLAMP FOR SETTING RIGGING.—J. W. Slight and J. W. Anarovatt, Prince's Bay, N. Y.
102,606.—SAWING MACHINE.—Addison Smith, Perysburg, Ohio.
102,607.—COMBINED CORN SHELLER AND VEGETABLE SLICER.—J. P. Smith, Hummelstown, Pa.
102,608.—CULINARY VESSEL.—J. C. Smith (assignor to himself and J. H. Poppy), Rochester, N. Y.
102,609.—ROLL FOR MAKING RAILS FOR STREET RAILWAYS.—G. A. Springer, Chicago, Ill.
102,610.—ROCK-BORING APPARATUS.—Thomas St. John, Dunbar, Pa.
102,611.—HAND CORN PLANTER.—Wm. D. Stroud, Oskosh, Wis.
102,612.—SHIRT.—S. H. Strouse and Joseph Strouse, New York city.
102,613.—HAT-BLOCKING MACHINE.—Jacob Surerus and W. H. Behrens (assignor to A. T. Finn), Newark, N. J.
102,614.—OVEN.—Charles Swain, Laconia, N. H.
102,615.—MOLD FOR ARTIFICIAL TEETH.—Eli Sweet, Whitney's Point, N. Y.
102,616.—BAG-HOLDER.—Geo. D. Sweigert (assignor to himself and Samuel Eshleman), Martic township, Pa.
102,617.—CARVING KNIFE.—O. W. Taft, New York, assignor to himself and Ernest Mitchell, Flushing, N. Y.
102,618.—CORN PLANTER.—L. B. Tarbox, Colliersville, N. Y.
102,619.—APPARATUS FOR THE COMBUSTION OF PETROLEUM AND OTHER HYDROCARBON LIQUIDS.—Homer Taylor, Montreal Canada.
102,620.—COMBINATION PADLOCK.—George Thompson (assignor to himself and J. H. Cogill), Trenton, N. J.
102,621.—WASHING MACHINE.—H. N. Thompson, Auburn, N. Y.
102,622.—SASH FASTENER.—Theodore R. Timby, Saratoga, N. Y.
102,623.—DRAIN AND WATER PIPE.—G. H. Titcomb and J. P. Culver, Jersey city, N. J.
102,624.—FAUCET.—W. H. Triscler, Cleveland, Ohio.
102,625.—MACHINE FOR BORING HUBS.—Abraham Troup (assignor to himself and Herman Kirk), Lewisberry, Pa.
102,626.—BLOWER FOR BLACKSMITHS' FORGE.—J. G. Tschelin, Baltimore, Md.
102,627.—ELASTIC TIP FOR LEGS OF CHAIRS, ETC.—Silas Van Patten, Albany, N. Y.
102,628.—WASHING AND WRINGING MACHINE.—J. B. Wake-man and A. R. Field, Hamden, N. Y.
102,629.—STONE PAVEMENT.—Chas. G. Waterbury, New York city.
102,630.—ATTACHING HANDLE TO JOINERS' PLOW.—C. H. Welch, York, Pa.
102,631.—CULTIVATOR.—Nicholas Werts, Magnolia, Ill.
102,632.—APPARATUS FOR DISTILLING.—J. M. Weyand, St. Louis, Mo.
102,633.—EVAPORATING AND DISTILLING BY SOLAR HEAT.—Norman W. Wheeler, Brooklyn, and Walton W. Evans, New Rochelle, N. Y.
102,634.—PUMP.—J. T. Whipple, Chicago, Ill.
102,635.—SAFETY SOCKET FOR WHIPS, UMBRELLAS, BILLIARD CUES, ETC.—J. W. Whiteman, Christiansa, Del.
102,636.—WATER-COCK FILTER.—Nahum C. Wilder, Hartford, Conn.
102,637.—MACHINE FOR BENDING WOOD.—W. D. Williams, Raleigh, N. C.
102,638.—FORMER FOR HOOP SKIRTS.—C. C. Wilson, Baltimore, Md.
102,639.—COAL HOD.—William Wilson, Boston, Mass.