

sun to shine through. The beam of light passing through the hole will cross the circle once before noon and once in the afternoon. Watch when it crosses the circle in the morning, and mark the point of intersection. Repeat the operation in the afternoon. The points of intersection will lie at equal distances from the true meridian. Join the two points by a line, and bisect it to find its middle point. A line joining this middle point and the center of the vertical pin will lie on the meridian. It is better to draw several concentric circles and perform the same operation with each to secure accuracy. They should be so drawn that the beam will cross them between the hours of 9 and 12 in the morning. The best time to do this is about the summer solstice. It will be sufficiently accurate for your purpose, however, to do it now. Glass lamp chimneys should be annealed at the time they are manufactured. We do not think you will succeed in annealing them in a stove oven.

E. P., of Ind.—We believe there are a number of makers and dealers in india-rubber tires for velocipedes, but we cannot remember their address. Better advertise for what you wish in our "Business and Personal" column.

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.

Wanted.—A young man desires a situation to do repairs, keep the machinery in order, etc., in a hardware manufacturing establishment. I think I can give satisfaction. Address J. P. Link, Troy, N. Y.

Velocipede—\$150 due-bill of \$350 piano for one. Address N. F. P., box 182, Paterson, N. J.

Wanted—A good 2d-hand milling machine. Address, stating price, D. E. Whiton, West Stafford, Ct.

New patent side-delivery harvesterrake, for one or two-wheeled harvester, for sale. Address Ed. Stewart, Fort Madison, Iowa.

A practical engineer and machinist, sixteen years' experience, desires a position as master mechanic or foreman. Very best of references furnished. Address J. H. Lord, Box 773, New York.

S. S. Pollard's celebrated Mill Picks, established 1837, 137 Raymond st., Brooklyn, N. Y.

Stock, Stencil, & Dies. E. H. Payn, Payn's Block, Burlington, Vt.

Wanted—Crushed Asbestos. Address E. A. Morgan, care D. U. Morgan, No. 832 Market st., Philadelphia, Pa.

Wanted—A competent man to run a vincer machine. Address P. O. Box 6,166, New York city.

Patentees and inventors of really valuable improvements of general utility, who wish to dispose of same, address, with full particulars, Postoffice Box 3,322, New York.

Wanted—Steady employ for portable saw mill, 3 to 5 years' contract, by the thousand. Address Box 8, Albion, Erie Co., Pa.

Manufacturers of soft gray iron, suitable for small castings, please send address to Miller & Keirnan, Weedsport, N. Y.

J. D. Borin, Scottsboro, Ala., wants a first-rate Brick Machine.

Pickering's Velocipede, 144 Greene st., New York.

A. B. Fisher, practical millwright, 9 Ross st., Brooklyn, E. D., N. Y.

\$1 per year.—Inventors and Manufacturer's Gazette. The cheapest, best, and most popular journal of the kind published. Send stamp for specimen copy. Sattiel & Co., Publishers, P. O. box 443, or 37 Park Row, New York.

Machine for bending fellies—Patent for sale—the whole, or State Rights. Address DeLyon & Werner, Canton, Miss.

To velocipede makers—a thoroughly competent carriage maker, who has applied for two patents—good especially for ladies—two-wheelers wants a situation. Has had large experience in first-class carriage shop as foreman. Best city references. Address G. W., foreman, 549 2d Avenue.

Patentee of Dunbar's packing please address Dormit A. Johnson, St. Louis, Mo., till May 10, then at Springfield, Mo.

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

Wanted—Scientific American, First Series, Vols. 2, 3, 4, 5, and 6. Address W. Elliot Woodward, Boston Highlands, Mass.

Rights, or whole interest for sale—guide attachment for boring instruments. Address A. A., Postoffice box 4769, New York.

Diamond carbon, formed into wedge or other shapes for point ing and edging tools or cutters for drilling and working stone, etc. Send stamp for circular. John Dickinson, 64 Nassau st., New York.

A milling machine for sale, price \$210. Also, 5-ft. floor drill lathe, price \$75. Are Lincoln's make and used but few months. E. S. Miner, Burrville, Conn.

The new method for lighting street lamps! For illustrated circular, with letter from President Manhattan Gas Light Co., and Sup't of Lamps N. Y. City. Address J. W. Bartlett, Patentee, 569 Broadway, N. Y.

The Tanite Emery Wheel.—For circulars of this superior wheel, address "Tanite Co.," Stroudsburg, Pa.

The manufacture and introduction of sheet and cast metal small wares is made a specialty by J. H. White, Newark, N. J.

The Magic Comb will color gray hair a permanent black or brown. Sent by mail for \$1.25. Address Wm. Patton, Treasurer Magic Comb Co., Springfield, Mass.

For coppered iron castings address J. H. White, Newark, N. J.

W. J. T.—We think the patent asbestos roofing manufactured by H. W. Johns, of this city, is the best substitute for tin or slate. It is cheap and easily applied.

Tempered steel spiral springs. John Chatillon, 91 and 93 Cliff st., New York.

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

Machinists, boiler makers, tanners, and workers of sheet metals read advertisement of Parker's Power Presses.

Mill-stone dressing diamond machine, simple, effective, durable. Also, Glazier's diamonds. John Dickinson, 64 Nassau st., New York.

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. \$4 00 a year

Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the more prominent home and foreign patents.

SPRING SCISSORS.—Albert Murdock, North Bridgewater, Mass.—This invention has for its object to construct scissors which can be constantly kept in the hand without being in the way of other work to be done, so that they may be used on sewing machines for clipping threads, and the like purposes, without requiring the machine to be stopped, and also for other purposes. The invention consists in arranging on one blade, which is provided with a ring handle, another blade without a handle and held open by a spring.

VELOCIPEDE.—W. S. Hill, Manchester, N. H.—This invention relates to a new three-wheeled velocipede, which is so constructed, that it will, when passing over uneven ground or when describing a curve, not lose its balance, but will be adjustable to retain the center of gravity in the proper position.

SAW FILER AND JOINTER.—C. G. Miller, Brattleborough, Vt.—This invention relates to a new apparatus for filing and jointing circular saws, and has for its object to produce an instrument, which can be adjusted to all kinds of saws in any suitable position, and for files of any suitable length.

COTTON GIN.—R. W. Stough, Griffin, Ga.—This invention relates to an improved arrangement of means for communicating a lateral movement to the cotton, as it is fed up to the saws, in order to produce a more uniform action of the saws thereon.

HARROW.—B. B. Williams, Laclède, Mo.—This invention is designed to arrange harrows so that they may be readily folded into such a shape that they may be drawn over the ground, when it is required to remove them from one place of operation to another, without the teeth being in contact with the ground.

VALVES AND VALVE SPRINGS, FOR MELODEONS, ORGANS, ETC.—A. L. Swan, Cherry Valley, N. Y.—This invention relates to improvements in valves and the springs employed for closing them, such as are used in melodeons, organs, and other similar instruments, designed to produce valves which will close more tightly, and more durable and sensitive springs.

CARRIAGE COUPLING.—Henry J. Pringle and William Pringle, Columbus, Ohio.—This invention has for its object to furnish an improved coupling for connecting the forward axle to the reach, and other parts of the carriage, which shall be simple in construction and reliable in operation.

INSECT DESTROYER.—Jacob Hinds, Hindsburg, N. Y.—This invention relates to a new and useful composition for destroying insects on vines, trees, and shrubbery, and which composition, when used in connection with coal tar or pine tar, is a specific against the ravages of the "wire worm."

HAND TRUCK FOR SACKING GRAIN AND MOVING THE SAME.—Wm. Brocklesby, Jr., Caledonia, Ohio.—The object of this invention is to provide a simple and efficient hand truck, whereby grain, or other analogous matter, may be sacked and transported to any part of a warehouse, mill, barn, or other building, with convenience and dispatch.

WELL AUGER.—A. A. McMahan, Oxford, Miss.—The object of this invention is to provide a simple, and effective apparatus for boring wells and deep holes for other purposes.

HOUSEHOLD MACHINE.—William W. Wilson, Geneva, Wis.—The object of this invention is to produce an improved household machine, by combining, in the same machine, a washing machine and churn, and in so devising the mechanism of the same that they can be operated separately or together in a simple and effective manner.

DUMPING WAGON AND CAR.—Thomas H. Gary, Bristol, Md.—The object of this invention is to simplify and improve the device allowed to me January 23d, 1869.

PICKER.—A. H. Carroll, Baltimore, Md.—The object of this invention is to construct the picker in such a manner that it will keep the rod more constantly and uniformly lubricated than heretofore, and will not spatter the oil upon the cloth.

BROOM HEAD.—W. C. Spellman, Baltimore, Md.—The object of this invention is to provide a new and improved mode of fastening the brush to the head.

ADJUSTABLE BREAST COLLAR.—George W. Blaksley, Rockford, Ill.—The object of this invention is to provide for public use a breast collar so constructed as to be easier for the horse and to be adjustable in position.

PICTURE AND ADVERTISING FRAME.—W. H. Sadler and J. M. Drysdale, Baltimore, Md.—The object of this invention is to provide for public use, a cheap, convenient, and ornamental device for holding and displaying pictures, cards, or advertisements, and so constructed that at any time one or more of the pictures, cards, etc., may be removed or introduced without disturbing the others, and without the necessity of taking the frame down from the wall, or removing its glass or back, while at all times its contents are securely held, and cannot be tampered with by any one but the proprietor.

SELF-ADJUSTING WATCH KEY OR HOLDING TOOL.—John S. Birch, New York city.—The nature of this invention consists in so constructing a watch key, or instrument for holding small objects, that it shall accommodate itself to the size of the object held, holding it firmly and securely. This is very important in most of the manipulations connected with watchwork and in manufacturing and repairing jewelry, and is especially important in the winding and setting of watch movements, the arbors of which are usually dissimilar in size, and yet in all cases, from the delicacy of the mechanism requiring that the key should exactly fit the arbor.

CLOTHES DRYER.—Louis Winterhalter and David Wilson, New York city.—This invention relates to a new clothes dryer of that class in which a series of bars are pivoted to a frame in such manner that they can be folded apart to form the dryer or together when not to be used.

COMBINED WASHING AND WRINGING MACHINE.—H. O. Reddish, Linden, N. Y.—This invention has for its object to furnish an improved machine, simple in construction, easily operated, and effective in operation, and which shall be so constructed and arranged that the clothes may be thoroughly washed, and, at the same time, wrung out so as to pass from the machine into the clothes bucket or other receptacle prepared to receive them ready to be hung out to dry.

SEED PLANTER.—I. F. Herrin, San Antonio, Texas.—This invention has for its object to furnish a simple, convenient, effective, and accurate machine, by means of which the planting may be readily done in exact check row, and which will allow the dropping device to be instantly thrown into or out of gear when desired.

CULTIVATOR.—James B. Sexton, Pella, Iowa.—This invention has for its object to improve the construction of the parts of a cultivator, by means of which the plow beams and draft are connected with the truck so as to make the plows readily adjustable, and so as to enable the draft to be readily adjusted, according to the comparative strength of the two horses.

HAT SHAPING MACHINE.—George W. Gallagiere and E. W. Ruby, New Milford, Conn.—This invention has for its object to furnish a simple, convenient, and effective machine for "curling" hats, which will do quickly, accurately, and well, work that has heretofore been done only by hand.

VISE.—J. D. Beck, Liberty, Pa.—This invention has for its object to furnish an improved vise, which shall be so constructed and arranged as to securely hold irregular, beveled, or plain work, and which shall, at the same time, be simple in construction and easily adjusted.

APPARATUS FOR FORCING LIQUIDS FROM CLOSE VESSELS.—J. L. Treat, New York city.—This invention has for its object to furnish a simple, convenient, and reliable apparatus, by means of which beer or other liquids may be forced out of close casks, and raised to the desired position by the pressure of atmospheric air.

SLED BRAKE.—Samuel W. Barber, Heath, Mass.—This invention has for its object to furnish an improved self-applying sled brake, which shall be so constructed and arranged as to be applied by the action of the team in

holding back, and which shall steady the load at the same time that it relieves the horses.

FANNING MILLS.—Harvey F. Siebert, Brady's Bend, Pa.—This invention has for its object to improve the construction of fanning mills so as to make them more effective and reliable in operation.

WEATHER STRIP.—E. Mears, Battle Ground, Ind.—This invention relates to a new weather strip for doors, said strip being so arranged that it will be closed over the outer edge of the sill, and still allow the door to be opened to the inside. The invention consists in the use of a hinged weather strip, provided with a spring in such manner, that it will, by the said spring, be swung up, and out of the way of the sill whenever the door is open, but when the door is closed, the weather strip strikes against a fixed bracket or stop provided on the door frame, and is thereby folded over the outer edge of the sill to securely close the crevice formed between the door and sill.

LOCK NUTS.—Almon Roff, Southport, Conn.—The object of this invention is to so arrange a system of nuts on screws or bolts, that when the said nuts have been adjusted on the screws, they cannot be displaced spontaneously by jarring or other motion. The invention consists in the combination of setscrews, with a right and left-hand nut, working on separate threads, or of one nut and one screw working in opposite directions for locking the nuts together when they are adjusted.

VELOCIPEDE.—John J. White, Philadelphia, Pa.—This invention relates to a new velocipede, which consists entirely of two wheels and their connecting axle, the axle supporting a frame in which the seat and driving gear are arranged so that they can be conveniently operated. The wheels can, with this arrangement, be made very large to obtain great velocity, and the whole apparatus can be made light and convenient.

CIGAR MACHINE.—R. M. Cole, Burlington, Vt.—This invention has for its object to construct a machine for rolling cigars in which both right and left-handed wrappers can be used, in which the cigar can be seen while it is being formed, and which can be retained in motion continually, even when no tobacco is rolled in it. The invention also consists in rolling the cigar within an endless apron, which is so held between suitable forms or molds that it imparts to the cigar the requisite shape. The apron is guided over rollers, which impart continuous motion to it, and of which some can be shifted without straining and interfering with the motion of the apron.

ELECTRIC ORGAN ACTION.—Holborne L. Roosevelt, New York city.—The object of this invention is to apply electricity from a battery or other source to the operation of organs, so that the keys can be played at a suitable distance from the organ and without any difficulty. The invention consists in a novel manner of connecting the wires with the keys and pallets, by dropping them into cups that are partly filled with mercury, the wires on the keys being held away from the mercury by means of springs as long as the keys are not touched. When, however, a key is depressed, this wire is dropped in the mercury, and a current thereby established by which two coils are charged, to cause them to attract an armature.

BREECH-LOADING PISTOL.—John McGovern, New York city.—This invention consists of an improved method of maintaining the barrel in its position in the stock, and of restoring it to the said position when displaced for loading.

NURSING TABLE.—Jeremiah Larkin, Unionville, S. C.—This invention relates to improvements in tables, to render them useful for sick persons, in helping themselves when unattended by nurses.

Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING APRIL 13, 1869.

Reported Officially for the Scientific American.

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On granting the Extension	\$.50
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On an application for design (fourteen years)	\$.30
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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.
Official Copies of Drawings of any patent issued since 1839, 25c per copy at a reasonable rate, 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

- 88,767.—MOTIVE POWER.—John B. Atwater, Chicago, Ill.
88,768.—FEEDING TROUGH FOR HORSES.—Addison D. Barrett, Cambridgeport, Mass.
88,769.—KROUT-CUTTING MACHINE.—W. K. Baylor and Conrad Rapp, Batesville, Ind.
88,770.—GATE.—Jacob Behel, Rockford, Ill.
88,771.—STEAM ENGINE VALVE GEAR.—Riley Bowers, Chillicothe, Ohio.
88,772.—BED BOTTOM.—Charles A. Brigham, Cleveland, Ohio.
88,773.—GATE.—Lorenzo D. Brooks, Syene, Wis.
88,774.—AUTOMATIC BOILER FEEDER.—Daniel L. F. Chase, Boston, Mass.
88,775.—BALING PRESS.—Peter K. Dederick, Greenbush, N. Y. Antedated April 8, 1869.
88,776.—FOLDING CHAIR.—Carl Dieterich, Roslindale (West Roxbury), Mass.
88,777.—HOLDER FOR STOVE LIDS.—Lindley M. Doudna, Washington, D. C.
88,778.—ANIMAL TRAP.—Josiah W. Ells, Pittsburgh, Pa.
88,779.—MODE OF ORNAMENTS CANDLES.—Arthur Field, Upper Marsh Lambeth, and William Bryer Nation, No. 394 Old Kent Road, England; (said Nation assigns his right to said Field).
88,780.—TUCK-CREASING ATTACHMENT FOR SEWING MACHINES.—H. W. Fuller, Brooklyn, N. Y.
88,781.—ANCHOR.—J. Durrell Greene, Cambridge, assignor to himself and Charles H. P. Plympton, Boston, Mass.
88,782.—PORTABLE FENCE.—Frank W. Groff, Indianapolis, Ind.
88,783.—BOLT MACHINE.—Moore Hardaway, St. Louis, Mo.
88,784.—LAMP FOR COOKING PURPOSES.—Mary E. Hatch, Beloit, Wis.
88,785.—EARTH SCRAPER.—John Y. Herston, Warrick county, Ind.
88,786.—MANUFACTURE OF RAILS FOR RAILROADS.—Charles Hewitt, Hamilton township, N. J.
88,787.—SEEDER AND CULTIVATOR.—E. W. Hewitt and Geo. Gorgam, Pecosonica, Ill.
88,788.—CASTING TWEEDS.—Wm. M. Johnston (assignor to himself and David P. Estep), Pittsburgh, Pa.
88,789.—CARRIAGE JACK.—A. W. Keeler and Jacob Eckert, Lafayette, N. Y.
88,790.—CORN SHELLER.—Elisha Kelley, Locust Grove, Ohio.
88,791.—COMBINED KNOB LATCH AND LOCK.—J. B. Kelley, Brandon, Vt.
88,792.—FLOUR BOLT.—Ira B. Ketchum, Rochester, Minn.
88,793.—HAIR DYE.—Joseph Lory, Memphis, Tenn.
88,794.—PLOW.—Benjamin F. Masters, Middleport, Ill.
88,795.—MACHINE FOR MANUFACTURING ROOFING TILE.—Charles Messenger, Cleveland, Ohio.
88,796.—WAGON BRAKE.—C. H. Mills, Ravenna, Ohio.
88,797.—SLED BRAKE.—S. A. Mitchell, Alstead Center, N. H.
88,798.—PLATE FOR ARTIFICIAL TEETH.—George Morrison Lockport, Ill.
88,799.—METAL BRD HOUSE.—John Murdock, Jersey City, N. J., assignor to John Savery's Sons, New York city.

88,800.—COMPOSING STICK.—Francis W. Murray, Cincinnati, Ohio.
88,801.—BOG-CUTTER AND DRAG.—John W. Newton, Geneva, Wis.
88,802.—WHEELWRIGHT MACHINE.—James O'Connor, Jackson, Mo.
88,803.—STILT.—Charles Page and George W. Miller, Meriden, Conn.
88,804.—HORSE HAY FORK.—James A. Park (assignor to himself and William Woodhouse), Lansing, Mich.
88,805.—FURNACE FOR ANNEALING TACKS, NAILS, ETC.—E. G. Paull (assignor to American Tool Company), Fair Haven, Mass.
88,806.—WASHING MACHINE.—Spencer B. Peugh, Salem, Ind.
88,807.—PROCESS AND APPARATUS FOR THE MANUFACTURE OF EXTRACT OF BARK, ETC.—John Pickles, Wigan, England.
88,808.—SEWING MACHINE.—Heinrich Pollack and Edwin Schmidt, Hamburg, Germany.
88,809.—NAIL PLATE FEEDER.—I. R. Richardson, New Castle, Pa.
88,810.—TABLE CUTLERY.—Charles L. Robertson, Providence, R. I.
88,811.—COMB.—Charles L. Robertson, Providence, R. I.
88,812.—CORN PLANTER.—Andrew Runstetter, Peoria, Ill.
88,813.—MILKING STOOL.—Erastus W. Scott, Wauregan, Conn.
88,814.—BLIND CATCH.—Wm. Frank Seavey, Portland, Me.
88,815.—VELOCIPEDE.—Samuel M. Skidmore, Brooklyn, N. Y.
88,816.—WASHING MACHINE.—Hamilton E. Smith, New York city.
88,817.—HANDLE FOR DRAWERS.—John Smith, Brockport, N. Y.
88,818.—GATE.—W. Willard Sowles (assignor to himself and A. D. Wilcox), Manlius, N. Y. Antedated January 18, 1869.
88,819.—FENCE.—Thomas Stanford, Noblesville, Ind.
88,820.—FIRE TONGS.—F. Stith, Memphis, Tenn.
88,821.—BORING MACHINE.—Miles Sweet, Troy, N. Y.
88,822.—HAY SPREADER.—Benjamin F. Taft (assignor to himself and David Needham), Groton Junction, Mass.
88,823.—MACHINE FOR MIXING TEA.—William Thompson, No. 83 Lower Gardner Street, Dublin, Ireland.
88,824.—BOOT AND SHOE.—William H. Towers, Boston, Mass.
88,825.—TOOTH BRUSH.—William B. Watkins, Jersey City, N. J.
88,826.—LINIMENT.—Wm. W. Wells, Freehold, N. J.
88,827.—MANUFACTURE OF PAPER BOXES FROM PULP.—Seth Wheeler and Edgar Jerome, Albany, N. Y.
88,828.—GATE.—A. D. Wilcox, Manlius, N. Y.
88,829.—JUG TOP.—Homer Wright (assignor to himself, Henry H. Collins, and Benjamin F. Collins), Pittsburg, Pa.
88,830.—MANUFACTURE OF CHEESE.—J. W. Andrews and N. J. Ogden, Dryden, N. Y.
88,831.—STEP LADDER.—E. R. Austin, Elmira, N. Y.
88,832.—SLED BRAKE.—S. W. Barber, Heath, Mass.
88,833.—CARPENTERS' GAGE.—T. E. Barrow, Mansfield, Ohio.
88,834.—VISE.—J. D. Beck, Liberty, Pa.
88,835.—PRINTING PRESS.—Henry Betts (assignor to himself and Hart Z. Norton), Norwalk, Conn. Antedated April 3, 1869.
88,836.—SELF-ADJUSTING WATCH KEY.—John S. Birch, New York city.
88,837.—DIE FOR MAKING AWLS.—James P. Blake, Rockville, Mass.
88,838.—BREAST COLLAR.—George W. Blakesley, Rockford, Ill.
88,839.—KNIFE SHARPENER.—Charles A. Bogert, Bay City, Mich.
88,840.—RING FOR SPINNING MACHINES.—John Booth (assignor to Orville Peckham, trustee, and said trustee assigns to John Booth and Fales, Jenks and Sons) Smithfield, R. I.
88,841.—HAND TRUCK FOR SACKING GRAIN AND MOVING THE SAME.—William Brocklesby, Jr., Caledonia, Ohio.
88,842.—EXTENSION LADDER.—Moses T. Burbank, Lawrence, Mass.
88,843.—GRAIN FAN BLAST.—John Butterworth and William H. Butterworth, Trenton, N. J.
88,844.—PROCESS AND APPARATUS FOR EXTINGUISHING FIRE BY MEANS OF WATER CHARGED WITH CARBONIC ACID.—Dawson Miles, Cambridge, Mass., administrator of Philippe Francois Carlier, deceased, and Alphonse A. C. Vignon, Paris, France.
88,845.—PICKER FOR LOOMS.—A. H. Carroll, Baltimore, Md.
88,846.—BALING PRESS.—Nathan Chapman, Milford, Mass.
88,847.—CHURN.—Nathan Chapman, Milford, Mass.
88,848.—WRENCH.—John Charlton, Newark, N. J.
88,849.—GRAIN CONVEYER FOR ELEVATORS.—D. C. Chester, Ogdensburg, N. Y.
88,850.—CIGAR MACHINE.—R. M. Cole, Burlington, Vt.
88,851.—PLOW.—Wm. S. Colwell, Allegheny City, Pa.
88,852.—MODE OF WARMING RAILWAY CARS.—A. C. Cray, Utica, N. Y.
88,853.—MAGAZINE FIREARM.—Thomas Cullen, San Francisco, Cal.
88,854.—VAPOR BURNER.—Joseph R. de Mahy and J. P. Cross, New Orleans, La.
88,855.—SASH HOLDER.—D. M. Doneho, Beaver Court House, Pa.
88,856.—DEVICE FOR HOLDING EDGE TOOLS WHILE BEING GRIND.—P. V. Dunn, Calamus, Wis. Antedated April 5, 1869.
88,857.—MODE OF HANGING AND FASTENING DOORS.—C. N. Earl, Elk River, Minn.
88,858.—HORSE RAKE.—Wm. Emmons, Sandwich, Ill.
88,859.—WAGON BRAKE.—O. F. Evans, Guilford, N. Y.
88,860.—FELT SHOE.—Reese Evans, Milltown, N. J.
88,861.—EAR BLANK FOR ELLIPTIC SPRINGS.—Wm. Evans, Pittsburgh, assignor to John Evans, Philadelphia, Pa.
88,862.—COOKING RANGE.—Francis Falls and John P. Hayes, Philadelphia, Pa., assignors to Francis Falls. Antedated Oct. 13, 1868.
88,863.—HARVESTER PITMAN.—J. R. Finley, Delphi, Ind.
88,864.—SMOKE STACK FOR LOCOMOTIVE ENGINES.—Lorenzo Fulton, Cincinnati, Ohio.
88,865.—MACHINE FOR SHAPING HATS.—G. W. Gallagiere, and E. W. Ruby, New Milford, Conn.
88,866.—FENCE POST.—E. S. Goodrich, Oakland, Wis.
88,867.—STOVE AND FURNACE.—Wm. P. Hall, Piqua, Ohio.
88,868.—CULTIVATOR.—J. R. Hand, Billingsville, Ind.
88,869.—CARVING MACHINE.—Adolph Henkel, New York city.
88,870.—SEED PLANTER.—I. F. Herrin, San Antonio, Texas.
88,871.—STEAM ENGINE.—W. C. Hicks, New York city. Antedated April 1, 1869.
88,872.—VELOCIPEDE.—W. S. Hill, Manchester, N. H.
88,873.—COMPOUND FOR DESTROYING INSECTS.—Jacob Hinds, Hindsburg, N. Y.
88,874.—ADJUSTING FEED ROLLERS FOR CARDING ENGINES.—Lyander Holmes, Newton, Mass.
88,875.—BRAN DUSTER.—Stephen Hughes, Hamilton, Ohio.
88,876.—MECHANISM FOR TRANSMITTING MOTION.—C. C. Hull, Williamsburgh, N. Y.
88,877.—COMPOSITION FOR ARTIFICIAL STONE.—C. B. Hutchins, Ann Arbor, Mich.
88,878.—MILE PAN.—B. F. Jewett, North Bangor, N. Y.
88,879.—TREATING WOOD FOR THE MANUFACTURE OF PAPER PULP.—V. E. Keegan, Boston (Southern District), Mass.
88,880.—THRESHING AND SEPARATING MACHINE.—J. W. M. Kirkpatrick, Hamburg, Ark.
88,881.—NURSING TABLE.—Jeremiah Larkin, Unionville, S. C.
88,882.—SCREW THREADING MACHINE.—W. J. Lewis, Pittsburgh, Pa.
88,883.—PASTRY CUTTER AND CRIMPER.—W. R. Marie, Boston, Mass., assignor to T. A. Mitchell, Washington D. C.
88,884.—ATTACHING HOES TO THEIR HANDLES.—J. A. Marine (assignor to himself and A. T. Manker), Mooresville, Ind.
88,885.—MACHINE FOR MAKING SHEET-METAL SCREW CAPS.—J. L. Mason, New York city.
88,886.—MANUFACTURE OF SHEET-METAL SCREW CAPS.—J. L. Mason, New York city.
88,887.—RUBBER HOSE, OR TUBING.—T. J. Mayall, Roxbury, Mass.
88,888.—MANUFACTURE OF RUBBER HOSE OR TUBING.—T. J. Mayall, Roxbury, Mass.
88,889.—VELOCIPEDE.—F. W. McCleave, New Bedford, Mass.
88,890.—BREECH-LOADING FIREARM.—John McGoveren, New York city.

88,891.—WELL-AUGER.—A. A. McMahan, Oxford, Miss.
88,892.—WEATHER STRIP.—E. Mears, Battle Ground, Ind.
88,893.—SAW FILING MACHINE.—C. G. Miller, Brattleborough, Vermont.
88,894.—VELOCIPEDE.—T. H. Mott, New York city.
88,895.—SCISSORS.—Albert Murdock (assignor to himself and H. E. Snow), North Bridgewater, Mass.
88,896.—DOUBLE TREE.—H. W. Palmer, Kingsville, Ohio.
88,897.—SHUTTLE HOLDER.—C. H. Parmenter (assignor to G. W. Raynes and A. S. George), Lowell, Mass. Antedated April 8, 1869.
88,898.—RAILWAY SWITCH.—F. P. Perdue, Atlanta, Ga.
88,899.—COMBINED MOWING MACHINE AND HAY SPREADER.—J. G. Perry, Kingston, R. I.
88,900.—APPARATUS FOR ARRANGING AND CONVEYING SCREW BLANKS.—E. S. Pierce (assignor to National Screw Company), Hartford, Conn.
88,901.—APPARATUS FOR ARRANGING AND CONVEYING SCREW BLANKS.—E. S. Pierce (assignor to National Screw Company), Hartford, Conn.
88,902.—DEVICE FOR CONNECTING THE PARTS OF MACHINERY.—E. S. Pierce (assignor to National Screw Company), Hartford, Conn.
88,903.—OIL CAN.—Wm. Polyblank, Cleveland, Ohio.
88,904.—CARRIAGE COUPLING.—H. J. Pringle and Wm. Pringle, Columbus, Ohio.
88,905.—WASHING AND WRINGING MACHINE.—H. O. Reddish, Linden, N. Y.
88,906.—LET-OFF MECHANISM FOR LOOMS.—Rensselaer Reynolds, Stockport, N. Y.
88,907.—SASH STOP AND LOCK.—Rensselaer Reynolds, Stockport, N. Y.
88,908.—LOCK NUT.—Almon Roff, Southport, Conn.
88,909.—ELECTRIC ORGAN ACTION.—H. L. Roosevelt, New York city.
88,910.—ADVERTISING FRAME.—W. H. Sadler, and James M. Drysdale, Baltimore, Md.
88,911.—TABLE CASTER.—A. B. Searles, Providence, R. I.
88,912.—TABLE CASTER.—A. B. Searles, Providence, R. I.
88,913.—FANNING MILL.—H. F. Seibert, Brady's Bend, Pa.
88,914.—COOKING STOVE.—W. G. Semple, Cincinnati, Ohio.
88,915.—CULTIVATOR.—J. B. Sexton (assignor to himself and J. L. Andrew), Pella, Iowa.
88,916.—POTATO DIGGER.—Isaiah Shaw, Four Corners, Md. Antedated March 15, 1869.
88,917.—MOP HEAD.—Emile Sirret and E. G. Sirret, Buffalo, N. Y.
88,918.—SECURING KNOBS TO THEIR SHANKS.—T. J. Sloan, New York city.
88,919.—SECURING KNOBS TO THEIR SHANKS.—T. J. Sloan, New York city.
88,920.—TOOL FOR SHAVING THE EDGES OF THE SOLES OF BOOTS AND SHOES.—Thomas Smiley, Albia, Iowa.
88,921.—FOLDING MILKING SEAT.—Selden Snow, Somers, Conn.
88,922.—BROOM HEAD.—W. C. Spellman, Baltimore, Md.
88,923.—LIFTING JACK.—Timothy Stebins, San Francisco, Cal.
88,924.—COTTON GIN.—R. W. Stough, Griffin, Ga.
88,925.—VALVE AND VALVE SPRING FOR MELODEONS, ETC.—A. L. Swan, Cherry Valley, N. Y.
88,926.—COMPOUND FOR FILLING THE PORES AND COATING WOOD.—Horace Thayer, Johnsonburg, N. Y.
88,927.—APPARATUS FOR RAISING BEER.—J. L. Treat, New York city.
88,928.—CONSTRUCTION OF BURGLAR-PROOF SAFES.—J. Weimar, New York city.
88,929.—STEAM POWER BREAK DEVICE.—Geo. Westinghouse, Jr., Schenectady, N. Y.
88,930.—VELOCIPEDE.—J. J. White, Philadelphia, Pa.
88,931.—HARROW.—B. B. Williams, Laclede, Mo.
88,932.—SASH HOLDER.—B. F. Wilson, Geddes, N. Y.
88,933.—STOP VALVE FOR STEAM AND OTHER ENGINE.—B. F. Wilson, Geddes, N. Y.
88,934.—STOP VALVE FOR STEAM AND OTHER ENGINE.—B. F. Wilson, Syracuse, N. Y.
88,935.—WASHING MACHINE.—W. W. Wilson, Geneva, Wis.
88,936.—SEWING MACHINE.—Wm. Winter, Leeds, England.
88,937.—CLOTHES DRYER.—Louis Winterhalder and David Wilson, New York city.
88,938.—DRIVE WHEEL FOR HARVESTERS.—W. A. Wood, Hoosick Falls, N. Y.
88,939.—MODE OF ROASTING IRON ORES.—Henry Aitken, Falkirk, Scotland.
88,940.—GUARD ATTACHMENT FOR CULTIVATORS.—Jas. Armstrong, Jr., Elmira, Ill.
88,941.—MODE OF PURIFYING IRON.—Ed. Brady, Philadelphia, Pa.
88,942.—FINGER SHIELD FOR PENMEN.—Chas. N. Brainerd, Hartford, Conn.
88,943.—SHINGLE MACHINE.—Merrill Chase, Jr., and Horace J. Morton (assignor to themselves and F. C. Merrill), South Paris, Me.
88,944.—DEVICE FOR ADJUSTING AND HANGING CARRIAGE BODIES.—J. D. Cole, Phelps, N. Y.
88,945.—HAY LOADER.—Emmett Cooper, Theresa, N. Y.
88,946.—BASE-BURNING STOVE.—D. B. Cox, Troy, N. Y.
88,947.—APPARATUS FOR EXHIBITING HYMNS, ETC.—H. V. Edmond, Norwich, Conn.
88,948.—MATERIAL FOR CARTRIDGE CASES.—Alfred B. Ely, Newtown, Mass.
88,949.—CIRCULAR SAW.—J. E. Emerson, Trenton, N. J.
88,950.—FASTENING FOR WAGON SEATS.—Peter Faber and Henry Martin, Canandaigua, N. Y.
88,951.—HARVESTER.—Amasa Foot, Earlville, Ill., assignor to C. R. Cook, Buffalo, N. Y.
88,952.—TRACE BUCKLE.—Kasson Frazer, Syracuse, N. Y.
88,953.—BUILDING.—W. J. Fryer, Jr., New York city.
88,954.—BUGGY AND WAGON TOP.—Gustav Fuchs (assignor to himself and J. E. Wehr), Milwaukee, Wis.
88,955.—DUMPING WAGON.—T. H. Gary, Bristol, Md.
88,956.—LET-OFF MECHANISM FOR CARRIERS FOR BRAIDING MACHINES.—Thomas Greenhalgh (assignor to himself and A. L. Holgate), Baritan, N. J. Antedated April 5, 1869.
88,957.—CHURN DASHER.—W. J. Hale, Ashley, Ill.
88,958.—LASTING TOOL.—Frederick Henderson, Marietta, Ohio, assignor to himself and Isaac Atkinson.
88,959.—BOLT.—Chas. H. Hopkins (assignor, by mesne assignments, to himself and H. A. Alden), Lyndonville, Vt.
88,960.—SURFACE CONDENSER.—John Houpt, Springfield, Pa.
88,961.—HARNESS SADDLE.—W. G. Hull, Sing Sing, N. Y.
88,962.—WAGON BRAKE AND TONGUE SUPPORT.—Abram C. Jacques, Leavenworth, Kansas.
88,963.—AMALGAMATOR.—Solomon Johnson, San Francisco, Cal.
88,964.—BLAST HEATING APPARATUS FOR SMELTING FURNACES.—J. C. Kent, Phillipsburg, N. J.
88,965.—OX YOKE.—Emmas Knowlton, Stockbridge, and S. F. Smith, Royalton, Vt.
88,966.—STAIR ROD.—Moritz Krickl (assignor to H. Uhry), New York city.
88,967.—MELODEON ATTACHMENT FOR PIANOFORTES.—La Fayette Louis, New York city.
88,968.—LAMP.—Louis Mangeon, New York city.
88,969.—SASH STOP.—W. J. Manker and A. T. Manker, Indianapolis, Ind.
88,970.—PIANOFORTE.—Theo. Marschall, New York city.
88,971.—SEED SOWER AND PLANTER.—E. G. Matthews, Newton, assignor to F. F. Holbrook, Dorchester, Mass.
88,972.—SHEET-METAL LATHE MACHINE.—Edwin May, Indianapolis, Ind.
88,973.—SALVE FOR CURE OF FOOT-ROT IN SHEEP.—John McDowell, Buffalo township, Pa.
88,974.—COMBINED KNOB-LATCH AND LOCK.—John McLeod, San Francisco, Cal.
88,975.—STENCIL IMPRESS.—G. V. Metzel, Baltimore, Md.
88,976.—INKING APPARATUS FOR COLOR PRINTING.—Thomas Moore and P. H. Day, Bloomington, Ill.
88,977.—FOLDING BEDSTEAD.—John Muller, Philadelphia, Pa.
88,978.—PROCESS OF PURIFYING PETROLEUM.—C. C. Parsons, New York city.
88,979.—TRUSS PAD.—E. C. Penfield, Philadelphia, Pa.
88,980.—POWER HAMMER.—T. T. Prosser, Chicago, Ill.

88,981.—MACHINE FOR HEADING BOLTS.—T. T. Prosser, Chicago, Ill.
88,982.—MANUFACTURE OF ILLUMINATING GAS.—A. C. Rand, New York city.
88,983.—CHURN LID SCREEN.—Edward Reynolds, Winneconne, Wis.
88,984.—STOCKING SUPPORTER.—J. A. Robbins, Boston, Mass.
88,985.—DOOR SPRING.—Wm. Ross, Baltimore, Md.
88,986.—BASE-BURNING STOVE.—Elihu Smith, Albany, N. Y.
88,987.—BASE-BURNING STOVE.—Elihu Smith, Albany, N. Y.
88,988.—FOLDING TABLE.—J. W. Smith, Charlestown, Mass.
88,989.—SEED PLANTER.—T. G. Smith, Canton, Miss.
88,990.—METHOD OF TRANSMITTING MOTION IN CAR BRAKES AND OTHER MACHINERY.—Joseph Steger, New York city.
88,991.—HORSE HAY FORK.—J. B. Sweetland, Pontiac, Mich.
88,992.—TRUNK.—C. A. Taylor, Chicago, Ill.
88,993.—STAIR ROD.—H. Uhry, New York city.
88,994.—STAIR ROD.—H. Uhry, New York city.
88,995.—STAIR ROD.—H. Uhry, New York city.
88,996.—RING AND TRAVELER FOR SPINNING.—Thos. Welham, Philadelphia, Pa.
87,997.—MECHANISM FOR MIXING SOAPSTONE WITH COTTON BEING CARDED.—T. Welham, Philadelphia, Pa.
88,998.—GANG PLOW.—Geo. Wharton, Jerseyville, Ill.
88,999.—SIRUP PITCHER.—J. P. Whipple, Woonsocket, R. I.
89,000.—WASHING MACHINE.—John Young, Amsterdam, N. Y.
89,001.—HAND CORN SHELLER.—Joseph C. Curryer, Thorn town, Ind.

REISSUES.

88,444.—STEAM ENGINE VALVE DEVICE.—Dated Oct. 27, 1868 reissue 3,364.—William Baxter, Newark, N. J.
82,957.—HOLLOW AUGER.—Dated Oct. 13, 1868; reissue 3,365.—W. A. Ives, New Haven, Conn.
58,435.—ROCK CHANNELING MACHINE.—Dated Oct. 2, 1866; reissue 3,366.—E. G. Lamson, Shelburne Falls, Mass.
16,460.—STONE CHANNELING MACHINE.—Dated Jan. 27, 1857; reissue 3,367.—E. G. Lamson, Windsor, Vt., assignee of G. W. Bishop.
18,552.—ROCK CHANNELING MACHINE.—Dated Oct. 6, 1857; reissue 3,368. Division A.—E. G. Lamson, Windsor, Vt., assignee of William Plumer.
18,552.—ROCK CHANNELING MACHINE.—Dated Oct. 6, 1857; reissue 3,369. Division B.—E. G. Lamson, Windsor, Vt., assignee of William Plumer.
63,079.—HORSE RAKE.—Dated March 19, 1867; reissue 3,370.—John I. Monroe, Woburn, Mass.
19,377.—HARVESTER.—Dated Feb. 16, 1858; reissue 44, dated March 5, 1861; reissue 3,371. Division A.—Frederick Nishwitz, Brooklyn, N. Y.
19,377.—HARVESTER.—Dated Feb. 16, 1858; reissue 44, dated March 5, 1861; reissue 3,372. Division B.—Frederick Nishwitz, Brooklyn, N. Y.
36,672.—SEEDING MACHINE.—Dated Oct. 14, 1862; reissue 3,373.—J. S. Rowell and Ira Rowell (assignees of J. S. Rowell and M. F. Lawth), Beaver Dam, Wis.
60,573.—METHOD OF BLASTING WITH NITROLEUM.—Dated Dec. 18, 1866; reissue 3,374. Division A.—Taliaferro P. Shaffner, Louisville, Ky.
60,573.—METHOD OF BLASTING WITH NITROLEUM.—Dated Dec. 18, 1866; reissue 3,375. Division B.—Taliaferro P. Shaffner, Louisville, Ky.
63,804.—FARE BOXES FOR CARS, ETC.—Dated April 16, 1867; reissue 3,376.—J. B. Slawson, New York city, assignee, by mesne assignments, of W. H. McLellan.
50,617.—MODE OF EXPLODING NITRO-GLYCERIN.—Dated Oct. 24, 1865; reissue 3,377. Division A.—The United States Blasting-oil Co., New York city, assignees of Alfred Nobel.
50,617.—DEVICE FOR EXPLODING NITRO-GLYCERIN.—Dated Oct. 24, 1865; reissue 3,378. Division B.—The United States Blasting-oil Co., New York city, assignees of Alfred Nobel.
50,617.—MODE OF MANUFACTURING NITRO-GLYCERIN.—Dated Oct. 24, 1865; reissue 3,379. Division C.—The United States Blasting-oil Co., New York city, assignees of Alfred Nobel.
50,617.—USE OF NITRO-GLYCERIN.—Dated Oct. 24, 1865; reissue 3,380. Division D.—The United States Blasting-oil Co., New York city, assignees of Alfred Nobel.
57,175.—MANUFACTURE OF NITRINE OR CRYSTALLIZING NITRO-GLYCERIN.—Dated Aug. 14, 1866; reissue 2,588, dated April 2, 1867; reissue 3,381. Division 1.—The United States Blasting-oil Co., New York city, assignees of Alfred Nobel.
57,175.—PROCESS OF MANUFACTURING NITRO-GLYCERIN.—Dated August 14, 1866; reissue 2,588, dated April 2, 1867; reissue 3,382. Division 2.—The United States Blasting-oil Co., New York city, assignees of Alfred Nobel.
28,936.—SEED PLANTER.—Dated June 26, 1860; reissue 3,383.—Elijah Young, Fayetteville, Mo.

DESIGNS.

3,446.—HANDLE OF A TABLE CASTER.—H. A. Dirkes, New York city.
3,447.—TRADE MARK.—H. A. Fanshawe, New York city.
3,448.—CARRIAGE.—John C. Ham, New York city.
3,449.—ERASER.—Wesley W. Hamilton (assignor to himself and W. G. Vermilye), New York city.

EXTENSIONS.

MACHINE FOR MAKING CANDLES.—John Stainthorp, Brooklyn N. Y.—Letters Patent No. 12,492, dated March 6, 1855.
CUT-OFF VALVE FOR STEAM ENGINES.—Noble T. Greene, of Providence, R. I.—Letters Patent No. 12,507, dated March 13, 1855.
PROCESS OF CURING MEATS.—John C. Schooley, Cincinnati Ohio.—Letters Patent No. 12,530, dated March 13, 1855.
BENZOLE VAPOR APPARATUS.—Charles Cunningham, Nashua N. H.—Letters Patent No. 12,535, dated March 13, 1855.
CULTIVATOR.—G. W. N. Yost, of Corry, Pa.—Letters Patent No. 12,571, dated March 20, 1855.
PRINTING PRESS.—Lemuel T. Wells, of St. Louis, Mo.—Letters Patent No. 12,568, dated March 20, 1855.
ILLUMINATING VAULT COVERS.—Thaddeus Hyatt, of New York city.—Letters Patent No. 12,595, dated March 27, 1855.
OPERATING VALVES IN DIRECT-ACTING STEAM ENGINES.—William H. Guild and William F. Garrison, of Brooklyn, N. Y.—Letters Patent No. 12,592, dated March 27, 1855; reissue No. 332, dated July 29, 1856.
PLOW.—Thomas J. Hall, of Bryan, Texas.—Letters Patent No. 12,627, dated April 3, 1855.

APPLICATIONS FOR THE EXTENSION OF PATENTS.

BUCKLES.—Stephen E. Booth, of Orange, Conn., administrator of the estate of S. S. Hartshorn, deceased, has petitioned for the extension of the above patent. Day of hearing, June 21, 1869.
SELF-ADJUSTING WIND MILL.—Addison P. Brown, of Syracuse, N. Y., has petitioned for the extension of the above patent. Day of hearing, June 21, 1869.
LOOMS.—S. T. Thomas, of Gilford, N. H., has applied for an extension of the above patent. Day of hearing, June 21, 1869.
LOOMS.—S. T. Thomas, of Gilford, N. H., has applied for an extension of the above patent. Day of hearing, June 21, 1869.
SPRING-BED BOTTOM.—Hiram Tucker, of Newton, Mass., has applied for an extension of the above patent. Day of hearing, June 21, 1869.
SAND-PAPER CUTTING MACHINE.—William Adamson, of Philadelphia, Pa., has petitioned for an extension of the above patent. Day of hearing, June 21, 1869.
METHOD OF RAISING AND LOWERING THE CUTTERS OF HARVESTERS.—Jonathan F. Barrett, of North Granville, N. Y., has petitioned for the extension of the above patent. Day of hearing, June 21, 1869.
MACHINE FOR MAKING BOLTS.—William E. Ward, of Portchester, N. Y., has petitioned for an extension of the above patent. Day of hearing, June 21, 1869.
LANTERNS.—Charles Waters, of Poughkeepsie, N. Y., has petitioned for the extension of the above patent. Day of hearing, June 28, 1859.
SHIP'S WINCHES.—Peter H. Jackson, of New York city, has petitioned for the extension of the above patent. Day of hearing, July 19, 1869.