

Recent American and Foreign Patents.

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

STEAM GENERATOR.—George A. Barnard, New York city.—This invention is claimed, by its construction, to obtain a thorough and rapid circulation, so that the generator may contain a liberal supply of water, while only a part of the said water is exposed to the heating surface. An easy transmission of steam from all parts of the generator, and a collection of all the sediment, are claimed as additional advantages. The thinness of the stratum of water over the heating surface will, it is alleged, insure a rapid vaporization. The invention appears to be one of practical merit and value.

ELASTIC DOOR GUARDS.—William N. Clark, Chester, Conn., has petitioned for an extension of the above patent. Day of hearing, November 1, 1871.

SEWING MACHINES.—Earle Harry Smith, Bergen Heights, New Jersey, has petitioned for an extension of the above patent. Day of hearing, October 25, 1871.

JOIST HOOK.—James S. Miller, of Terre Haute, Ind.—This is a combination of a standard, lever, hook, and arm, whereby a simple, effective, and convenient device for raising joists, to level them after being placed in a wall, is secured.

HORSE SHOE NAIL CLINCHER.—Daniel Mater, Jr., assignor to himself and Ira Mater, Bellmore, Ind. The object of this invention is to provide a convenient tool for clinching horse shoe nails after they have been driven into the hoof; and it consists in the construction and arrangement of two jaws pivoted together, and operated by means of a curved lever.

DITCHING MACHINE.—Stephen S. Wood, of Brooklyn, N. Y.—This invention relates to improvements in ditching machines; and it consists in a construction, combination, and arrangement of the several operative parts, whereby the earth scooped up by an oblique scraper or plow is discharged on to an inclined elevating apparatus, from the top of which, after being elevated, it is transferred to a lateral conductor to be discharged upon the bank at one side of the ditch.

DITCHING PLOW.—Robert M. Primmer, Vinton, Iowa.—This invention consists in a new way of constructing a mold board for ditching plows, by shaping the working face so as to carry the sod up against a vertical plate, which turns it over on the said mold board, and from which it is again partially turned to one side, but with the grass side toward the ditch.

HOLLOW AUGER.—Silas Katz, of Bossardsville, Pa.—This auger may be used for cutting tenon on spokes and for other purposes. Its advantages are: It may be readily adjusted to cut tenons of different diameters and different lengths. It may be operated in a lathe or in a hand brace, as may be most convenient. The cutters are slotted and placed obliquely to the center on the sliding jaws, so that they are readily adjusted to cut as required.

WHEEL PLOW.—Andrew J. Borland, of Charlestown, Iowa.—The object of this invention is to construct a cultivator that can be completely controlled by the driver, so that the plow will run at a suitable depth and desired angle. The invention consists in a new arrangement of levers and connecting rods, whereby the position of the plow can be fully regulated in accordance with the nature of the soil to be worked and with the objects for which it is to be prepared. The near horse walks in the furrow, the other one or two on the land side of the plowing. The driver can with his feet control the depth of the plow, and with his hand, by means of a lever, the inclination of the same. The working depth of the plow can also be regulated by lengthening or shortening a strap. The driver is thus given complete control over the plow. His weight, by being near the wheel, tends rather to ease the plow than to add to the weight of the same.

RAILWAY JOURNAL BOX.—Isaac Dripps, of Altoona, Pa.—This invention has for its object to improve the construction of journal boxes for railroad cars, so as to prevent heating and irregular wear, while allowing the journal to have the play necessary for running around curves or upon uneven tracks; and it consists in the construction and combination of various parts, whereby the desired result is secured.

DRAFT DEVICE FOR VEHICLE.—Jonathan S. Tibbets, of Brazil, Ind.—This invention relates to improvements in road carriages; and it consists in a novel safety detaching apparatus for disengaging the team if it becomes ungovernable. It also consists in an adjustable arrangement of the tongue, whereby it is adapted for attaching to carriages in which the clips are more or less distant from each other; and in improvements in the clips and connecting pins for preventing the latter from falling out.

COMBINED CHECK AND GLOBE VALVE.—G. W. Shields, Louisville, Ky.—This invention consists of a common globe valve provided with a vertical stem having a horizontal disk on its top in combination with a vertical frame inclosing said disk, the valve stem passing through the lower end of the frame, which latter has a threaded stem projecting from its upper end, said stem passing through a stuffing box in the upper side of the valve chamber, by turning which threaded stem the frame may be lowered so as to touch the valve and confine it to its seat, or elevated away from the valve, to as to leave the latter free to rise under the action of steam, gas, or water.

COMBINED CORN HARVESTER AND HUSKER.—Leonard Devore, Victor, Iowa.—This invention relates to a machine that, when drawn through a field of standing corn, gathers the ears, drops them into an elevator, cuts off the knobs, slits the shucks while on the ears into transverse ribbons, doing such cutting and slitting at the same time that the ears are being elevated, drops the ears from the elevator into the shucker, strips off the husks, throwing them out of the machine, and finally conveys the ears off to one side of the apparatus, where it lets them fall into any receptacle that may be provided.

GAGING AND PLAITING ATTACHMENT FOR SEWING MACHINES.—This is an improvement upon a gaging and plaiting attachment patented by the same inventor, Jacob S. Adler, of Leavenworth, Kansas, May 3, 1870. As now arranged, the work can, it is claimed, be done in the most satisfactory manner, requiring but very little attention of the operator in adjusting the binding on the edge of the cloth in advance of the instrument, which insures the exact adjustment of the binding, by reason of the natural tendency of the feed to cause the lower part to work under the cloth and draw off from the upper side being counteracted by the bottom of the hook acting on the edge of the binding, keeping it in the position required. This mode of attaching the binder is also applicable for attaching ruffling or other instruments.

SCHOOL DESK AND SEAT.—J. Peard, of New York city.—This invention provides an useful and very convenient school desk and seat, the most prominent feature of which is that both the desk and seat can be folded into a vertical position during the exit and entrance of pupils in the performance of exercises, and in the sweeping and cleansing of the building. This great convenience is coupled with a tasteful design.

DENTAL DRILL.—This is an arrangement of foot treadle with a pulley affixed to an upright standard by which a horizontal shaft, extending from a revolving cap at the top of the standard, is driven. From this shaft a system of universal friction gearing (this gearing being made of India rubber) together with suitable shafts enables the power of the prime mover to be transmitted in any direction and position for drilling or dressing teeth as required by dentists. Mr. Greene V. Black, of Jacksonville, Ill., is the inventor.

STEM WINDING WATCH.—Samuel Jaccard and Justin Jaccard Jaques, of St. Croix, Switzerland, assignors to D. Constant Jaccard, of St. Louis, Mo.—This invention relates to a new stem winding and setting watch of that kind in which, by pressure against the stem, the setting, and by the closing of the case, the winding attachment is thrown into gear. The apparatus operates to a great extent automatically—that is, with the opening or closing of the lid, but the claim rests upon a combination of a lever with the catch and a spring lever to operate by the action of the sliding stem as specified.

GANG PLOW AND CULTIVATOR.—W. J. Arrington, Louisville, Ga.—This invention relates to that class of cultivators which are composed of a fixed and two adjustable side beams, and consists in an improved construction and arrangement of parts, whereby the parallelism of the side beams is preserved under all adjustments to or from the central beam.

MILLSTONE BALANCE.—Zedekiah Dawson, Cole Creek, Ind.—This invention relates to balancing a millstone by a system of weights secured to the rim thereof by means of bands encircling the stone. The invention consists in a peculiar arrangement of bands and weights calculated to attain the desired result with the least possible weight of metal and time required for shifting the weights.

STEAM PLOW.—Herman Miller, Bellville, Texas.—This invention relates to an apparatus for turning up soil in which the resistance of the plows is overcome by means of a chain fastened at one end to one side of the field, and passing over a toothed wheel which is rotated by a steam engine supported on the same truck as the shaft of said toothed wheel, which latter hauls in the chain and thus causes the machine and plows to advance, an apparatus being also provided for paying out the chain at one side of the machine as fast as it is hauled in, said paying out apparatus leaving the chain stretched on the ground behind the machine in the line in which it must lie in order to be hauled in on its return.

WATER GATE.—William Penn Hubbard, of Farmland, Ind., assignor to himself and James H. Fegans, of same place.—The object of this invention is to produce a durable and reliable fence or gate, to be put up across streams, rivers, creeks, and low grounds which are subject to overflow. The invention consists in constructing the fence or gate of sections, which are hinged to a stationary sill, and in providing the same with pivoted arms which sustain them in the erect position, and, in case of a flood, serve to hold them down upon the bottom.

RAFTER HOOK.—John Newton Bebout, of Oberlin, Ohio.—This invention relates to a new rafter hook, which remains under complete control while being applied, one part being connected with a supporting stem or pole, while the other has a pivoted hook that carries the pulley and rope. The invention consists in the general arrangement of parts, whereby the desired result is obtained.

CULTIVATOR.—Edwin Reese, Eutaw, Ala.—This invention relates to a wheel cultivator, in which the shovels are attached to a frame placed beneath the main frame, and connected, by means of chains fastened to its front end, with the extremities of a whiffletree that is pivoted beneath the tongue said whiffletree being the instrument, and serving to prevent one chain from slackening while the other is kept bent in turning the machine to either side.

WINDOW FASTENING.—Thomas J. McCarver, Oregon City, Oregon.—In this invention a pawl or catch is pivoted to a plate attached to the window sash, and provided with a rigid bar or extension which passes through a slot formed in a flange of said plate. A spiral spring encircles the bar, and rests against the flange, so that the pawl is kept in contact with a notched bar or edge of the casing, and thus holds the sash at any desired elevation, or locks it when closed.

SCREW PRESS.—W. J. Arrington, Louisville, Ga.—This invention relates to that class of presses in which the box rotates on a vertical axis, and in which there are two followers attached to the ends of screws, one right and the other left, which screws pass through fixed nuts, one at the top and the other at the bottom of the frame, so that, as the box is rotated, the followers turn the screws, and are thereby made to advance toward or recede from each other.

GARDEN IMPLEMENT.—D. S. Wilhoit, Madison Court House, Va.—This invention consists in the construction of the stock of a garden implement to qualify it for attaching and detaching of various blades, instruments, or devices requisite in garden culture.

MILLSTONE BUSH.—James Brown, Fonda, N. Y.—This invention consists in a peculiar relative construction of the bearing blocks or followers and the casing, whereby all wear is automatically taken up as fast as it occurs.

COMBINED CHAIR AND CANE.—David Otho Parker, of Liverpool, Nova Scotia.—This invention has for its object to furnish an improved combined chair and cane, which shall be so constructed that it may be readily adjusted for use as a chair or stool and as a cane, and which shall, at the same time, be simple in construction, neat in appearance, and serviceable in either capacity.

IMPROVEMENT IN MANUFACTURE OF RUBBER CUSHION FOR BILLIARD TABLES.—Mathew Delaney, of New York city.—This invention has for its object so to construct a flask or mold for vulcanizing long billiard cushions that the apertures through the latter for the reception of the bracing and strengthening wires will be straight and smooth. The invention consists in combining, with the said flask or mold, a wire, which is drawn through the non-vulcanized rubber, and then stretched and straightened to properly form the desired aperture. Heretofore it has been found quite difficult to provide long cushions for billiards with straight small holes, and only by the application of the stretched wire has the difficulty been overcome.

OILING JOURNALS.—W. G. Winne, of Albany, N. Y.—This is intended more especially for journals of vertical shafts, but it can be applied to horizontal shafts with advantage. A spiral groove terminating in a ring groove at the upper end is turned upon the journal. The oil flows from a reservoir through a channel to the lower end of the bearing, and is then carried upward by the groove, whence it flows back through another channel to the reservoir, and so on, a constant circulation over the bearing surface being thus maintained.

COOKING STOVE.—Seth Gregory, South Norwalk, Conn.—This invention has for its object to improve the construction of cooking stoves so as to more thoroughly utilize the heat developed by the combustion of the fuel. The invention consists in the construction and combination of certain parts of the stove for effecting the desired result.

UTERINE SUPPORTER.—Dr. Lyman D. McIntosh, Waseca, Minn.—This invention relates to a uterine supporter having a soft rubber stem, within which is placed a nut and also a screw bolt passing through the nut, said bolt terminating at both ends in hard rubber parts of the instrument, and being provided with a knob at one extremity, by turning which the screw is rotated, and the soft rubber stem lengthened or shortened accordingly.

NEW BOOKS AND PUBLICATIONS.

THE ACTION OF NATURAL SELECTION ON MAN. The Development of Human Races under the Law of Selection: the Limits of Natural Selection as Applied to Man. By Alfred Russel Wallace. New Haven, Conn.: Charles C. Chatfield & Co.

This is another addition to the already profuse literature on the subject of Natural Selection. Mr. Wallace agrees with Mr. Darwin, that Natural Selection has played an important part in the development of the various races of men, but denies that it alone accounts for the facts of man's present existence, his moral nature, etc. As a writer, Mr. Wallace is not inferior to Darwin; as a thinker, he ranks high, and his arguments are of a kind not easily refuted.

THE FEDERAL GOVERNMENT: ITS OFFICERS AND THEIR DUTIES. By Ransom H. Gillet, formerly M. C. from St. Lawrence Co., N. Y.; more recently, Register and Solicitor of the U. S. Treasury Department, Solicitor for the U. S. in the Court of Claims, Counselor at Law, etc. Woodworth, Ainsworth & Co., 51, 53, and 55 John Street, New York; 111 State Street, Chicago, Ill.

There is a general lack of the information supplied by this work. It is astonishing how few know anything of the functions of the various offices and officers who transact public business, and the routine of the General Government. To those who wish a book of convenient reference on the subject named, Mr. Gillet's book will be welcome. It is a handsomely bound and printed octavo.

THE DURATION OF FUTURE PUNISHMENT. By Henry Constable, A.M., Prebendary of Cork. Reprinted from the Second London Edition. New Haven, Conn.: Charles C. Chatfield & Co.

This is one of those works, of a speculative theological kind, which we regard as not the most profitable reading. The author maintains the total annihilation of the wicked after death, and the eternal life of the good.

A PRACTICAL TREATISE ON THE MANUFACTURE OF SOAPS. With numerous Wood-cuts and Elaborate Working Drawings. By Campbell Morfit, M.D., F.C.S. Formerly Professor of Applied Chemistry in the University of Maryland. New York: John Wiley & Son, 15 Astor Place. London: Trubner & Co., Paternoster Row.

The wide reputation of Professor Morfit, as a writer upon and teacher of applied Chemistry, is a recommendation of the present work which alone would secure it a remunerative sale; but we can assure our readers that this is its least recommendation. The subject is treated systematically, perspicuously, and practically, while the theoretical principles involved are not neglected. The work is valuable for any technical library; but to the soap manufacturer, we scarcely need say that it will prove a reliable guide in the by no means simple art of soap making. The list of working drawings numbers sixteen, including all the apparatus essential to the successful prosecution of the business; and the parts of the work devoted to the various materials used are full and complete. The work is a large octavo, printed in beautiful style, and handsomely bound.

A BOOK OF DESIGNS FOR MURAL AND OTHER MONUMENTS. By James Forsyth, Sculptor. With an Introduction by Charles Boutwell, M. A. Philadelphia: Henry Carey Baird, Industrial Publisher, 406 Walnut street.

This is a quarto volume, containing seventy-eight designs adapted to different requirements. The designs are of a strictly practical character, and may be produced precisely as lithographed. They may also admit of modification without relinquishing their general features. The collection contains designs for almost every class of monuments in marble or other materials, including architectural metal-work. The work is the most artistic of any book of the kind that has passed under our notice, and the plates are executed in fine style. The price is five dollars, free of postage.

Official List of Patents.

ISSUED BY THE U. S. PATENT OFFICE.

FOR THE WEEK ENDING AUGUST 15, 1871.

Reported Officially for the Scientific American.

SCHEDULE OF PATENT FEES:

On each Caveat	\$10
On each Trade-Mark	\$25
On filing each application for a Patent, (seventeen years)	\$15
On issuing each Original Patent	\$20
On appeal to Examiners-in-Chief	\$10
On appeal to Commissioner of Patents	\$20
On application for Reissue	\$20
On application for Extension of Patent	\$50
On granting the Extension	\$50
On filing a Disclaimer	\$10
On an application for Design (three and a half years)	\$10
On an application for Design (seven years)	\$15
On an application for Design (fourteen years)	\$30

For Copy of Claims 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 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, 37 Park Row, New York.

- 117,957.—SEINE.—L. H. Alexander, Gloucester, Mass.
- 117,958.—WHEEL.—F. Alger, Boston, Mass.
- 117,959.—BROOM.—E. A. Anderson, Danville, Tex.
- 117,960.—COUPLING.—J. F. Andrews, Nashua, N. H.
- 117,961.—CULTIVATOR.—W. J. Arrington, Louisville, Ga.
- 117,962.—BALING PRESS.—W. J. Arrington, Louisville, Ga.
- 117,963.—FENCE POST.—C. Ayers, Farmington Centre, Wis.
- 117,964.—SLATE.—W. F. Baade, Buffalo, N. Y.
- 117,965.—EPERGNE.—S. S. Barrie, Green Point, N. Y.
- 117,966.—FRUIT GATHERER.—J. S. A. M. Barry, Sheridan, Mich.
- 117,967.—NEEDLE WRAPPER.—M. E. Baylis, Redditch, Eng.
- 117,968.—IRON AND STEEL.—H. Bessemer, London, Eng.
- 117,969.—FAN.—J. M. Beverly, Chicago, Ill.
- 117,970.—PLOW.—J. Blackwood, Madison, Ohio.
- 117,971.—HOIST.—D. A. Bolt, Harrisburgh, Pa.
- 117,972.—BRAKE.—H. Bothe, St. Louis, Mo.
- 117,973.—PULVERIZER.—G. C. Bovey, Cincinnati, Ohio.
- 117,974.—CHEESE FRAME.—T. M. Brintnall, Medina, Ohio.
- 117,975.—WATER METER.—J. Broughton, Brooklyn, N. Y.
- 117,976.—BED BOTTOM.—G. Brownlee, Princeton, Ind.
- 117,977.—LIFE BOAT, ETC.—C. Butgenbach, Louisville, Ky.
- 117,978.—CARVING MACHINE.—J. W. Campbell, New York city.
- 117,979.—ANNUNCIATOR.—J. Capron, New York city.
- 117,980.—PACKING.—H. S. Cate, Deerfield, Pa.
- 117,981.—CORN PLANTER.—W. B. Chambers, Decatur, Ill.
- 117,982.—EGG BEATER.—D. B. Clayton, Columbia, S. C.
- 117,983.—TILE MACHINE.—G. Clayton, Cleveland, Ohio.
- 117,984.—OIL CAN.—W. Cleveland, Orange, N. J.
- 117,985.—DRESSING FRAME.—R. Collier, Laurel, Md.
- 117,986.—BROOM.—R. E. Copson, Hamburg, Iowa.
- 117,987.—SCROLL SAW.—T. L. Cornell, S. Whitlock, Derby, Ct.
- 117,988.—EGG CARRIER, ETC.—J. T. Cornforth, Kansas city, Mo.
- 117,989.—CULTIVATOR, ETC.—H. J. Coyle, Buffalo, N. Y.
- 117,990.—BRAN DUSTER.—J. Damp, Ashland, Ohio.
- 117,991.—PADDLE WHEEL.—D. S. Darling, Brooklyn, N. Y.
- 117,992.—CAR COUPLING.—P. W. Davis, Portland, Oregon.
- 117,993.—EXCAVATOR.—R. W. Davis, Sonoma, N. Y.
- 117,994.—HAME TUG.—P. R. Dawson, Brenham, Tex.
- 117,995.—BILLIARD CUSHION.—M. Delaney, New York city.
- 117,996.—STOVE.—W. Doyle, Albany, N. Y.
- 117,997.—SCRUBBER, ETC.—W. H. Earnest, Parkersburg, W. Va.
- 117,998.—GAS.—H. H. Edgerton, Fort Wayne, Ind.
- 117,999.—MEAT CHOPPER.—M. L. Edwards, Salem, Ohio.
- 118,000.—CULTIVATOR.—J. T. Ellis, Decatur, Ill.
- 118,001.—ROOF BRACKET.—D. Fisher, Mansfield, Mass.
- 118,002.—DRESSING HIDES.—E. Fitzhenry, Boston, Mass.
- 118,003.—DRESSING LEATHER.—E. Fitzhenry, Boston, Mass.
- 118,004.—PACKING.—J. M. Flagg, Providence, R. I.
- 118,005.—RAISING LETTERS.—R. R. Foote, Chicago, Ill.
- 118,006.—PHOTOGRAPHY.—E. J. Foss, Boston, Mass.
- 118,007.—TOY ENGINE.—R. Frisbee, Cromwell, Conn.
- 118,008.—GAS COCK.—S. Gardner, Jr., New York city.
- 118,009.—THRILL.—M. C. Graves, Tuscola, Mich. B. D. Graves, Waterloo, Iowa.
- 118,010.—TUNNELING MACHINE.—C. J. P., and L. Griscom, Port Carbon, John Fritz, Mahanoy Top, Pa.
- 118,011.—RACE COURSE TOY BANK.—J. Hall, Watertown, Mass.
- 118,012.—FAUCET.—J. Hayden, Jr., Haydenville, Mass.
- 118,013.—ENGINE.—W. H. H. Heydrick, Chestnut Hills, Pa.
- 118,014.—WASHING MACHINE.—H. C. Horsey, Rome, Iowa.
- 118,015.—BLACKING BRUSH.—J. R. Howard, Boston, Mass.
- 118,016.—MOVEMENT.—C. W. Hurd, Comstock's Landing, N. Y.
- 118,017.—TABLE.—J. L. Jackson, New York city.
- 118,018.—SPRING BED.—J. Johnson, Hartford, Conn.
- 118,019.—BINDING.—R. P. Johnson, Steubenville, Ohio.
- 118,020.—JACK.—S. D. Jones, Blue Island, Ill.
- 118,021.—COLUMN.—J. A. Kay, St. Charles, Mo.

- 118,022.—FLY WHEEL.—J. W. Keely, Phila., Pa.
- 118,023.—SLAT.—K. Kendal, L. H. Stark, Goffstown, N. H.
- 118,024.—BOILER.—W. E. Kinnear, Upper Sandusky, Ohio.
- 118,025.—ROOFING.—W. Kinsey, Cincinnati, Ohio.
- 118,026.—WASH BOWL.—C. Knowles, Boston, Mass.
- 118,027.—FRUIT BASKET.—C. H. Latham, Lowell, Mass.
- 118,028.—GAS ENGINE.—C. P. Leavitt, New York city.
- 118,029.—CARDING MACHINE.—E. Lord, Todmorden, Eng.
- 118,030.—BOILER.—T. J. Lovegrove, Phila., Pa.
- 118,031.—HOIST.—A. Lucius, New York city.
- 118,032.—COATING, ETC.—G. A. Mariner, F. Dorsett, Chicago, Ill.
- 118,033.—FIRE ALARM.—J. W. Martin, St. Joseph, Mo.
- 118,034.—TANNING.—W. Masek, Nashville, Tenn.
- 118,035.—CUTTER.—G. B. Massey, New York city.
- 118,036.—BOTTLING LIQUIDS.—J. V. Mathivet, Cleveland, O.
- 118,037.—REFRIGERATOR.—J. Matthews, Jr., New York city.
- 118,038.—SASH HOLDER.—T. J. McCarver, Oregon city, Oreg.
- 118,039.—BIT STOCK.—W. H. McCoy, Erving, Mass.
- 118,040.—GUNPOWDER.—A. Molino, New York city.
- 118,041.—JIG SAW.—C. D. Moore, Lawrence, Mass.
- 118,042.—WINDOW SASH.—T. Morton, New York city.
- 118,043.—SEWING MACHINE.—C. F. Mueller, Hamilton, Can.
- 118,044.—BILLIARD MARKER.—W. H. Newell, Hudson city, N. J.
- 118,045.—HARVESTER.—D. C. Nutting, J. D. Allen, Bowling Green, Ky.
- 118,046.—HARNESS.—A. M. Osborn, Girard, Pa.
- 118,047.—LOUNGE BEDSTEAD.—F. C. Payne, New York city.
- 118,048.—SMUT MILL.—D. Pease, Floyd, N. Y.
- 118,049.—PLOW.—C. B. Pettengill, Hebron, Me.
- 118,050.—CLEVIS.—S. W. Pope, Louisville, Ky.
- 118,051.—FUNNEL.—N. L. Price, Lynchburg, Va.
- 118,052.—MEDICINE.—B. H. Pullin, McDowell, Va.
- 118,053.—CULTIVATOR.—E. Reese, Eutaw, Ala.
- 118,054.—CUT OFF.—B. Rein, Marietta, Ohio.
- 118,055.—SUSPENDER.—T. Rich, South Seekonk, Mass.
- 118,056.—HORSE POWER.—T. H. Russell, Lebanon, N. H.
- 118,057.—LETTER BOX.—J. A. Ryan, Cleveland, Ohio.
- 118,058.—BIT STOCK.—S. Sawyer, Erving, Mass.
- 118,059.—HYDRANT.—N. Schleffer, Chicago, Ill.
- 118,060.—COTTON PRESS.—J. Schley, Savannah, Ga.
- 118,061.—GUTTER STRAP.—A. B. Schultz, Baltimore, Md.
- 118,062.—FURNACE.—W. Shepherd, New York city.
- 118,063.—DOOR CHECK.—Don C. Smart, Cambridge, Mass.
- 118,064.—VALVE.—W. B. Snow, Brooklyn, N. Y.
- 118,065.—CAR WHEEL.—W. B. Snow, Brooklyn, N. Y.
- 118,066.—PAPER TRIMMER.—O. L. Starkey, E. W. Poston, Fort Wayne, Ind.
- 118,067.—SEWING MACHINE.—C. Stebbins, Pike, N. Y.
- 118,068.—BOILER.—G. Stenenson, Zionsville, Ind.
- 118,069.—BOTTLING MACHINE.—E. D. Taylor, Hornellsville, N. Y.
- 118,070.—ICE PICK.—T. A. Taylor, Bangor, Me.
- 118,071.—WASHING MACHINE.—J. M. Thompson, Dowagiac, Mich.
- 118,072.—DUMPING CAR.—J. R. True, Richmond, Me.
- 118,073.—UTERINE SUPPORTER.—W. S. VanCleve, Centralia, Ill.
- 118,074.—AGITATOR.—Van Vanderburgh, Bacon Hill, N. Y.
- 118,075.—LOCK BOLT.—S. Vanstone, North Providence, R. I.
- 118,076.—ELEVATOR CUP.—A. A. Vitt, Union, Mo.
- 118,077.—SPINDLE.—H. W. Vitt, Union, Mo.
- 118,078.—LUBRICATOR.—M. N. Ward, Somerville, Mass.
- 118,079.—CHAIR SEAT.—G. A. Watkins, Cavendish, Vt.
- 118,080.—CURTAIN FIXTURE.—T. N. Webb, Baltimore, Md.
- 118,081.—CURTAIN FIXTURE.—T. N. Webb, Baltimore, Md.
- 118,082.—REGISTER.—G. A. Webster, Elgin, Ill.
- 118,083.—CARRIAGE DOOR.—E. Wells, New Haven, Conn.
- 118,084.—DUST PAN.—W. Westlake, Chicago, Ill.
- 118,085.—CARRIAGE WASH. O. P. Weston, Shattuckville, Ms.
- 118,086.—JOURNAL, ETC.—J. Wharton, Philadelphia, Pa.
- 118,087.—JIG SAW.—A. H. Whitney, Essex, N. Y.
- 118,088.—IMPLEMENT. D. S. Wilhoit, Madison Court House, Va.
- 118,089.—TANNING.—D. Woodbury, Peabody, Mass.
- 118,090.—BRAKE.—F. Yaesché, Springfield, Mass.
- 118,091.—GRAIN BINDER.—J. Youll, Manchester, Iowa.
- 118,092.—PAPER PULP.—G. Ames, New York city.
- 118,093.—GEAR.—J. C. Anderson, A. W. Benson, Saginaw, Mich.
- 118,094.—GRAIN SEPARATOR.—F. A. Balch, Hingham, Wis.
- 118,095.—FURNACE.—H. Beatty, Massillon, Ohio.
- 118,096.—CHAIR, ETC.—W. Bergmann, Philadelphia, Pa.
- 118,097.—BARREL, ETC.—E. and J. E. Blake, Chicopee, Mass.

- 118,098.—MILK RACK.—W. Boswell, Pontiac, Mich.
- 118,099.—TAP SOLE.—A. O. Bourn, Providence, I. F. Williams, Bristol, R. I.
- 118,100.—STEEL.—T. Brooks, Minerva, Ohio.
- 118,101.—MILLSTONE.—J. Brown, Fonda, N. Y.
- 118,102.—BLIND SLAT.—M. Buck, Lebanon, N. H.
- 118,103.—WHIFFLETREE.—I. and T. Byrd, Jr., Calvin, Mich.
- 118,104.—FLASK. G. A. G. D. and J. T. Capewell, Woodbury, Ct.
- 118,105.—FLOUR.—T. Carr, Bristol, Great Britain.
- 118,106.—PIPE, ETC.—F. Chase, Philadelphia, Pa.
- 118,107.—FRICTION BRAKE.—J. C. Clapp, Boston, Mass.
- 118,108.—ARROW SPRING.—J. B. Cleaveland, Indianapolis, Ind.
- 118,109.—SEWING MACHINE.—G. A. Colton, S. P. Babcock, Adrian, Mich.
- 118,110.—SEWING MACHINE.—G. A. Colton, S. P. Babcock, Adrian, Mich.
- 118,111.—SEWING MACHINE.—G. A. Colton, S. P. Babcock, Adrian, Mich.
- 118,112.—METER.—D. P. Davis, Jersey City, N. J.
- 118,113.—MILLSTONE.—Z. Dawson, Cole Creek, Ind.
- 118,114.—LOOM.—J. Detweiler, West Liberty, Ohio.
- 118,115.—FIFTH WHEEL.—D. C. Doran, Mount Healthy, Ohio.
- 118,116.—HYDRANT.—W. H. Duffett, Rochester, N. Y.
- 118,117.—CASTER.—F. H. Duncan, Evansville, Ind.
- 118,118.—CAISSON.—J. B. Eads, St. Louis, Mo.
- 118,119.—PLOW.—T. Edmunds, Talcott, Va.
- 118,120.—WASHING MACHINE.—R. E. Ferguson, Chicago, Ill.
- 118,121.—HAY FORK.—B. G. Fox, Pricetown, Pa.
- 118,122.—TELEGRAPH.—R. H. Gallaher, New York city.
- 118,123.—TABLE SLIDE.—M. Griffin, New York city.
- 118,124.—WINDMILL.—J. Hall, Ligonier, Ind.
- 118,125.—UTENSIL.—H. R. Halsey, La Fayette, Ill.
- 118,126.—INCENSE BURNER.—E. W. Hastings, Boston, Mass.
- 118,127.—PROPELLER.—B. S. Heath, Philadelphia, Pa.
- 118,128.—SCAFFOLDING.—A. J. Heavner, Pittsfield, Ill.
- 118,129.—STOVE.—C. Hitchcock, Chicago, Ill.
- 118,130.—HAY RAKE. M. S. Holman, C. S. Farrar, Armada, Mich.
- 118,131.—PACKING.—J. E. Hooper, Boston, Mass.
- 118,132.—TORCH.—W. K. Horner, Ypsilanti, Mich.
- 118,133.—STEAM ENGINE.—A. W. Jackson, Napoleon, Ohio.
- 118,134.—CORN PLANTER.—J. Jackson, Jr., Chatsworth, Ill.
- 118,135.—FENCE.—L. P. Judson, Rose, N. Y.
- 118,136.—GRIST MILL.—E. C. L. Kunnecke, Dayton, Ohio.
- 118,137.—SADDLE.—W. and W. E. Leonard, Chelsea, Mass.
- 118,138.—BOOT.—C. E. Lins, Ashland, Pa.
- 118,139.—CORN SHELLER.—H. Lippold, Silver Creek, N. Y.
- 118,140.—LADLE.—P. Loeb, Dayton, Ohio.
- 118,141.—WRENCH.—A. P. Lord, Friendship, N. Y.
- 118,142.—COTTON PRESS.—R. Mauldin, Marietta, Miss.
- 118,143.—STEAM PLOW.—H. Miller, Bellville, Texas.
- 118,144.—WINE PRESS, ETC.—T. M. Millett, Jr., Savannah, Ga.
- 118,145.—SEWING MACHINE.—M. J. Palmer, Syracuse, N. Y.
- 118,146.—FINISHING LEATHER.—G. H. Parker, Detroit, Mich.
- 118,147.—EXTRACTING MERCURY. A. Patera, Vienna, Austria.
- 118,148.—SPOKE LATHE. J. Pierce, A. B. Curtis, New Haven, Ct.
- 118,149.—FREEZER. A. L. Platt, J. W. Wilmett, Bloomington, Ill.
- 118,150.—SLATE WASHER.—F. W. Porter, Winona, Minn.
- 118,151.—PROPELLER.—E. Raynale, Birmingham, Mich.
- 118,152.—FIRE ARM.—J. Rider, Newark, Ohio.
- 118,153.—ELEVATOR.—R. O. Robertson, Barnesville, Va.
- 118,154.—NOZZLE.—H. H. Rogers, Brooklyn, N. Y.
- 118,155.—NOZZLE.—H. H. Rogers, G. F. Walter, Brooklyn, N. Y.
- 118,156.—FENCE.—J. Rohrer, Springfield, Ohio.
- 118,157.—NECK YOKE.—T. H. Russell, Lebanon, N. H.
- 118,158.—CLEANING WOOL.—C. G. Sargent, Graniteville, Ms.
- 118,159.—CULTIVATOR.—S. B. Shank, Millersville, Pa.
- 118,160.—RECORDE.—E. F. Sheltman, Christiansburg, Va.
- 118,161.—SCHOOL DESK.—J. Smith, Richmond, Ind.
- 118,162.—WASHING MACHINE.—S. Smith, Bourbon, Ind.
- 118,163.—TOILET BOTTLE.—W. A. Spalding, Waterbury, Ct.
- 118,164.—HAY PRESS.—A. Spanier, St. John, Ind.
- 118,165.—FURNACE.—W. Stephens, New Albany, Ind.
- 118,166.—LIGHTNING ROD.—G. A. Stephenson and L. S. Sutfiff, Wooster, Ohio.
- 118,167.—RAILWAY CAR.—E. Sturgeon, Columbia, Ohio.
- 118,168.—LIFE PRESERVER.—J. E. Thomson, Buffalo, N. Y.
- 118,169.—MOLD. G. W. Tinsley, E. W. Storer, Minneapolis, Minn.
- 118,170.—CAR WHEEL, ETC.—C. D. Tinsdale, Boston, Mass.
- 118,171.—FIRE ARM.—J. B. Wayne, Birmingham, England.
- 118,172.—FIRE ESCAPE.—E. R. Wethered, London, England.

- 118,173.—SPOKE MACHINE.—J. Woodburn, Indianapolis, Ind.
- 118,174.—CASTING BRASS.—L. T. Wooster, Ansonia, Conn.
- 118,175.—STALK CUTTER.—E. A. Wright, Fort Madison, Iowa.
- 118,176.—STEERING APPARATUS.—E. S. Drew, New Orleans, La.

REISSUES.

- 4,512.—STEAM GENERATOR.—G. H. Babcock, S. Wilcox, New York city.—Patent No. 65,042, dated May 28, 1867.
- 4,513.—SIGNAL BOX.—M. G. Crane, Newton, and E. Rogers, Boston, Mass.—Patent No. 92,275, dated July 6, 1869.
- 4,514.—STOCK CAR.—J. S. Kendall, St. Louis, Mo.—Patent No. 90,851, dated June 1, 1869.
- 4,515.—STILL.—C. Lockhart and J. Gracie, Pittsburgh, Pa.—Patent No. 80,294, dated July 28, 1868.
- 4,516.—AUGER BIT.—J. Swan, Seymour, Conn.—Patent No. 78,769, dated June 9, 1868.
- 4,517.—AUGER BIT.—J. Swan, Seymour, Conn.—Patent No. 100,816, dated March 15, 1870.

DESIGNS.

- 5,197.—BARN DOOR HANGER.—P. P. Child, St. Louis, Mo.
- 5,198 and 5,199.—CARPET.—G. Crompton, Worcester, Mass.
- 5,200.—CORNER PIECE.—C. A. Durgin, East Andover, N. H.
- 5,201.—HOE.—C. Fisher, Canton, Mass.
- 5,202.—PAPER WEIGHT.—G. B. Garrett, Philadelphia, Pa.
- 5,203.—STAIR ROD.—W. B. Gould, New York city.
- 5,204.—TONGUE SUPPORT.—J. Keller, Laury's Station, Pa.
- 5,205.—CARPET PATTERN.—H. S. Kerr, Philadelphia, Pa.
- 5,206.—JELLY GLASS.—W. M. Kirchner, Pittsburgh, Pa.
- 5,207.—ORGAN PIPE.—C. E. Snell, Chatham, Canada.
- 5,208.—HARNESS.—O. Wiener, Newark, N. J.

TRADE-MARKS.

- 422.—CURTAIN FIXTURE.—S. S. Putnam, Boston, Mass.
- 423.—MEDICINE.—E. S. Sharp, Salem, N. J.

APPLICATIONS FOR EXTENSION OF PATENTS.

SEEDING MACHINES.—Albert Franklin, Genoa Cross Roads, Ohio, has petitioned for an extension of the above patent. Day of hearing, October 25, 1871.

MACHINES FOR TURNING PILLARS FOR CLOCK MOVEMENTS.—Wilford H. Nettleton, Bristol, Conn., Charles Raymond, Guelph, Canada, and Anson Hatch, New Haven, Conn., have petitioned for an extension of the above patent. Day of hearing, November 1, 1871.

Value of Extended Patents.

Did patentees realize that their inventions are likely to be more productive of profit during the seven years of extension than the first full term for which their patents were granted, we think more would avail themselves of the extension privilege. Patents granted prior to 1861 may be extended for seven years, for the benefit of the inventor or of his heirs in case of the decease of the former, by due application to the Patent Office, ninety days before the termination of the patent. The extended time inures to the benefit of the inventor, the assignees under the first term having no rights under the extension, except by special agreement. The Government fee for an extension is \$100, and it is necessary that good professional service be obtained to conduct the business before the Patent Office. Full information as to extensions may be had by addressing

MUNN & CO., 37 Park Row.

Inventions Patented in England by Americans.

All dated July 27, 1871.

[Compiled from the Commissioners of Patents' Journal.]

BOTTLE CORKING MACHINE.—A. A. B. Granville, New York city.

DRILLING MACHINE.—W. H. Thorne, Philadelphia, Pa.

SEWING MACHINE.—L. W. Lathrop, New York city.

VESSELS FOR CONVERTING STEEL, ETC.—H. Chisholm, Cleveland, Ohio.

Foreign Patents.

The population of Great Britain is 31,000,000; of France, 37,000,000; Belgium, 5,000,000; Austria, 36,000,000; Prussia, 40,000,000; and Russia, 70,000,000. Patents may be secured by American citizens in all of these countries. Now is the time, while business is dull at home, to take advantage of these immense foreign fields. Mechanical improvements of all kinds are always in demand in Europe. There will never be a better time than the present to take patents abroad. We have reliable business connections with the principal capitals of Europe. A large share of all the patents secured in foreign countries by Americans are obtained through our Agency. Address MUNN & Co., 37 Park Row, New York. Circulars, with full information on foreign patents, furnished free.

Receipts—When money is paid at the office for subscriptions, a receipt for it will be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a bona-fide acknowledgment of their funds.

City Subscribers—The SCIENTIFIC AMERICAN will be delivered in every part of the city at \$3.50 a year. Single copies for sale at the News-stands in this city, Brooklyn, Jersey City, and Williamsburgh, and by most of the News Dealers in the United States.

Subscribers—Who wish to have their volumes bound, can send them to this office. The charge for binding is \$1.50 per volume. The amount should be remitted in advance, and the volumes will be sent as soon as they are bound.

Advertisements.

The value of the SCIENTIFIC AMERICAN as an advertising medium cannot be over-estimated. Its circulation is ten times greater than that of any similar journal now published. It goes into all the States and Territories, and is read in all the principal libraries and reading-rooms of the world. We invite the attention of those who wish to make their business known to the annexed rates. A business man wants something more than to see his advertisement in a printed newspaper. He wants circulation. If it is worth 25 cents per line to advertise in a paper of three thousand circulation, it is worth \$2.50 per line to advertise in one of thirty thousand.

RATES OF ADVERTISING.

Back Page - - - 1'00 a line,
Inside Page - - - 75 cents a line
for each insertion.

Engravings may head advertisements at the same rate per line, by measurement, as the letter-press.

FIRE ARMS—Wanted responsible parties to manufacture on royalty the best breech loading Rifle and repeating Pistol extant. Address: BREECH LOADER, Westport, Ct.

FOR SALE—Our twenty-five horse power Beam Steam Engine in good order, only sold for want of use. For particulars apply to HENRY SEYMOUR & CO., 28 Rouse Street, N. Y.

PRINTING TELEGRAPH—Private Lines. The best, simple, rapid wire printer. Right for Northern and Western States for sale. Address DAVID PLANERY, Lock Box 289, New Orleans.

DENSLOW & BUSH'S "SAFETY" OIL

Will not explode! Safest and purest oil ever produced! Stands over 150° fire test! We take regular Kerosene oil, and by our new process expel fully 4 impurities and explosive elements. The Fire Underwriters of N. Y. recently recommend our oil as a protection to life and property. A lighted lamp may be upset and a broken without fear of explosion or fire. For sale by grocers, druggists, &c. in the U. S. Extra inducement to dealers. Address Denslow & Bush, 33 Maiden Lane, N. Y., 8 Custom House St., Boston, Mass., 31 S. Calvert St., Baltimore, Md., 51 S. Water St., Chicago, Ill., or Cleveland, O.

Machinist's Tools.

At low prices, 97 to 113 R. R. Ave., Newark, N. J. E. & R. J. GOULD, successors to Gould Machine Co.

TROY ACADEMY, TROY, N. Y.—Students are thoroughly trained for the Rensselaer Polytechnic Institute of Civil and Mining Engineering. References—The Director and Faculty of the Institute. T. NEWTON WILSON, A. M., Principal.

FOUNDRY, MACHINE SHOP, & WOOD WORKING ESTABLISHMENT.—Orders for work in either or all of the above branches executed promptly at reasonable rates. Plenty of room, power, and tools. Excellent facilities for shipping. Address Brown Cotton Gin Co., New London, Conn. For Cotton Gins, Cotton Gin Saws, Ribs, and all other Gin Materials, address as above.

THE "PHILADELPHIA" HYDRAULIC JACK.

PISTON guided from both ends; all working parts guarded from dust; single or double pumps; cylinders, shafts, rockers arms, pistons, etc., entirely steel. No. 11 N. 5th St., Philadelphia, Pa. PHILIPS JUSTICE, No. 32 Cliff St., New York.

The Beardslee Nickel & M'fg Co.

HAVE REMOVED their NICKEL PLATING WORKS from Brooklyn to their premises, Nos. 120 & 122 WOOSTER ST., New York. The new establishment is replete with all the improvements which long experience has suggested, and they confidently recommend the finish and color of their Plating as unsurpassed. The facilities afforded by their new works enable them to plate articles of the largest size, and there will be no delay in finishing goods entrusted to their care.

CINCINNATI INDUSTRIAL

Exposition,

1871.

The Second Grand Exhibition of

Manufactures, Products, and Arts,

Will be held in

CINCINNATI,

From September 6th until October 7th, 1871,

In immense Buildings especially erected for this purpose, in the centre of the city, costing over \$600,000, and in every particular far surpassing the Great Exposition of last year. It will be the largest display ever held in the United States.

Power Hall for Machinery in motion covers nearly one acre, and 50 feet high. Fine Art Department, 350 feet in length, Central Hall, 250 by 110 feet, and 70 feet high. Horticulture Department, 167 feet by 80 feet, and 25 feet high; and four other departments of large dimensions, presenting a floor space of over 3 acres.

Building open to receive articles August 16, 1871. The most ample arrangements have been made for the conveyance of articles and visitors to the Exposition.

For full particulars, address H. McCOLLUM, Secretary. A. T. GOSHORN, President.

AMERICAN GRAPHITE CO.,
24 CLIFF ST., NEW YORK.

MINES AND WORKS, TICONDEROGA.

Standard unqualified **PLUMBAGO** perfectly expressed for Stove Polish; Glazing Powder, Shot, &c.; Paint, Crucibles, Pencils, Electrotyping, Piano and Organ action, and for lubricating machinery of every description.

Grades for Special Uses prepared to order.

\$290 For 1st class Piano. Sent on trial. No agents. Address U. S. PIANO CO., 645 W. 4th St., N. Y.

OTIS' SAFETY HOISTING Machinery.
OTIS, BROS. & CO.
No. 348 BROADWAY, NEW YORK.

The Stevens Institute of Technology

A SCHOOL OF MECHANICAL ENGINEERING, in Hoboken, N. J. Founded by the late EDWIN A. STEVENS.

FACULTY.

President—HENRY MORTON, Ph. D.
Prof. of Physics—A. M. MAYER, Ph. D., late of Lehigh University.
Prof. of Engineering—R. H. THURSTON, C. E., late of United States Naval Academy, Annapolis.
Prof. of Mathematics—Lieut. Col. A. S. HASCALL, U. S. A., late of U. S. Military Academy, West Point.
Prof. of Mechanical Drawing—C. W. McCORD, A. M.
Prof. of Chemistry—A. R. LEEDS, A. M.
Prof. of Modern Languages—C. F. KREH, A. M.
Prof. of Belles Lettres—REV. EDWARD WALL.

This Institution will open its first session on the 20th of September, 1871. Examinations for admission will be held during the previous week.

This Institution was endowed by Mr. Stevens with a sum amounting in all, up to the present time, to about \$750,000, and has been supplied with a building, laboratories for physics as well as chemistry, cabinets of apparatus and models, workshops and other appliances, which are without a parallel in the country. Fees for tuition to residents of the State of New Jersey, \$75; to others, \$150. This distinction is made in accordance with the special provision of Mr. Stevens' will.

For announcements and further information, address, HENRY MORTON, President, Hoboken, N. J.

THE WOODWARD STEAM-PUMP MANUFACTURING COMPANY. Manufacturers of the Woodward Pat. Improved Safety Steam Pump and Fire Engine, Steam, Water, and Gas Fittings of all kinds. Also Dealers in Wrought-iron Pipe, Boiler Tubes, etc. Hotels, Churches, Factories, & Public Buildings heated by Steam, Low Pressure. Woodward Building, 76 and 78 Center St., cor. of Worth St. (formerly of 77 Beekman St., N. Y.). All parties are hereby cautioned against infringing the Patent of the above Pump. G. M. WOODWARD, Pres't.

Independent Steam BOILER SUPPLY.

OR
Feed Pump,

RELIABLE FOR HOT OR COLD WATER.

Circulars sent free. COPE & CO., No. 118 East 2d St., Cincinnati, Ohio.

\$2.50 A MONTH easily made with Stencil and Key-Check Dies. Secure Circular and Samples, FREE. S. M. SPENCER, Brattleboro, Vt.

HUMPHREY'S PATENT CASTER FOR STOVE LEGS is strong, durable, and not liable to arrangement. Stoves fitted can readily be moved, and are held firmly when placed. No stove not possessing this valuable addition should be bought. Address T. A. HUMPHREY, 112 Marshall Street, Milwaukee, Wis.