

CAR PUSHER.—Rufus Lane, Freeport, Ill.—This invention relates to a new improvement for propelling railroad cars on switches, etc., in places where engines for that purpose are not to be obtained.

ELASTIC CLASP.—Antoine Scheydecker, Amsterdam, N. Y.—This invention has for its object to furnish an improved clasp for confining the ends of elastic sleeve bands and other elastic bands, which shall be so constructed as to hold the end of the bands securely, and at the same time in such a way as to prevent the clasp from coming in contact with the sleeve or other object about which the band is passed.

CORN PLANTER.—H. C. Beshler, Berrysburgh, Pa.—This invention has for its object to furnish an improved corn planter, which shall be so constructed and arranged as to drop the corn uniformly and at the proper time, and in such a way that the operator may see the kernels as they pass down the conductor spouts.

CHECK REIN CONNECTOR.—A. H. Rockwell, Harpersville, N. Y.—This invention has for its object to furnish a simple, convenient, and effective device for connecting the check rein with the main rein, which shall be so constructed as to enable the check rein to be secured to the main rein adjustably without sewing, forming holes in, or otherwise weakening the said main rein.

CAR COUPLING.—G. W. Wheat, Phillipsburg, Pa.—This invention has for its object to furnish an improved car coupling which shall be simple in construction, effective in operation, will couple the cars automatically when they are run together, and may be easily and conveniently uncoupled.

ELASTIC CABLE APPARATUS.—J. E. Jones, Wiretown, N. J.—The object of this invention is to provide means for giving elasticity to chain cables on board of ships and steamboats, designed for relieving the cable in breaking the anchor from the ground, and in the surging of the vessel.

GUANO DISTRIBUTOR.—William E. Martin, Oconee, Ga.—This invention has for its object to furnish a simple, convenient, and effective machine for distributing guano, and other fine fertilizers, which shall be so constructed and arranged that it may be easily operated by hand.

ADJUSTABLE TIME TABLE.—Loyst J. Smith, New York city.—This invention relates to a new time-table for railroads, steamboats, and other purposes, and consists principally in the employment of a series of reversible and removable blocks upon which the requisite figures or characters are written, the blocks being retained by means of removable slides.

HARROW.—Andrew Lewis, Hastings, Minn.—This invention has for its object to furnish an improved harrow, which shall be flexible, so as to adapt itself to any unevenness of ground, and which may be folded together to enable it to make a turn on short corners.

PROJECTILES.—James G. Hope, Topeka, Kan.—This invention has for its object to furnish an improvement in balls and other projectiles, by means of which the ball or other projectile may be fired in curved lines with the same accuracy as in straight lines.

BOAT HULLS.—L. P. Rider, Pittsburgh, Pa.—This invention relates to a new and important improvement in mode of constructing boats or marine vessels, and consists in the application of certain construction lines for forming the bottom of the hull, by means of which the water is made to exert a lifting force on the boat, and is thrown beneath instead of to the opposite sides of the boat.

HAND GUANO-DISTRIBUTER.—Edwin R. Stedman, Sparta, Ga.—This invention relates to improvements in apparatus for sowing guano, plaster, and other like substances in the rows or drills in which the seed is planted. It consists in a small tin or other sheet metal cup, with a short socketed or other suitable handle for the reception of a longer wooden one, and having a hole at the apex of the conical contents, over which works a slide for regulating the discharges, said slide being held by a pin, or it may be any other fastening, engaging it at certain prearranged points by which it holds the slide at certain graduated positions for discharging the required quantities.

SNAP HOOKS.—David J. Blasir, Western, N. Y.—This invention relates to improvements in the construction of snap hooks, and mode of attaching the reins thereto, and consists in making the shank of the hook, which is broad and flat, and broader at the end than at the junction with the hooks, and providing a clasp corresponding to it for slipping on in the direction of the strain on the rein, which clasp confines the end of the rein against the side of the shank, upon rivets projecting from it, and also confines the snap springs in a way to admit of readily removing it and applying another when broken or rendered useless from any cause.

SAW SET.—Wm. A. Smith, Dresserville, N. Y.—This invention relates to an improved saw set, which is adapted for setting the teeth of crosscut saws, by driving a tool, resembling in some respects the common upsetting tool used, for spreading the teeth of saws cutting with the grain of the wood, against the points of the teeth.

STUMP PULLER.—J. M. Ferguson, Summit, Miss.—This invention relates to improvements in machines for pulling stumps, and consists in an arrangement on the top of a portable frame of a spherical nut, with a pulling screw rod working in it, the said nut being mounted in a rotating sweep to be turned for raising the screw rod, and to have a universal motion in its seat in the sweep, so that the rod may shift according to the direction of the strain on it, and the sweep being mounted on friction balls for being supported and for revolving readily. The invention also comprises an arrangement of the brace rods for the base of the frame, calculated to facilitate the adjustment of the frame around the stumps.

MACHINE FOR FINISHING WHEELS.—Jas. L. Hathaway, Norfolk Va.—This invention relates to improvements in machinery for dressing and finishing small gear and other wheels for watches and the like, and consists in a rotary cutter of peculiar construction, and a wheel support, arranged for turning the faces of the wheels, also for dressing out and finishing the teeth.

OPERATING SAFETY LATCHES.—J. Ward Fifield, Franklin, N. H.—This invention relates to a new and useful improvement in operating safety latches, whereby the latch may be moved for locking or unlocking by means of a key.

GAS MACHINE.—John L. Bartlett, Stockton, Cal.—This invention relates to a new and useful improvement in machines for generating illuminating gas by carbureting atmospheric air.

CAR COUPLING.—Loyst J. Smith, New York city.—This invention relates to a new car coupling, which is made entirely self-acting, so that it will connect two cars without the aid of an attendant.

MEDICAL COMPOUND.—H. W. Cloud, Evansville, Ind.—This invention relates to a new and useful improvement in a compound to be used as a medicine for the cure of disease, and as a tonic.

SWING LOCK FOR TRUNKS.—James Terry, Jr., Terryville, Conn.—This invention relates to a new construction of lock fastening for trunks, etc., and more particularly to a novel form of joint for a swinging lock.

COMPOSITION ROOFING.—George Shove, Yarmouth Port, Mass.—This invention relates to a new composition for roofing, or, rather, to a novel combination of materials for constructing a covering for roofs.

POTATO DIGGER.—G. M. Marks, Half Moon, Pa.—This invention relates to new and useful improvements in a machine for digging potatoes, whereby that tedious and laborious operation is performed by horse-power, and in the most expeditious manner.

TELESCOPIC PEN AND PENCIL CASES.—Charles H. Downes, Jersey city, N. J.—This invention relates to improvements in telescopic pen and pencil cases, of that class wherein the pen or pencil holders are moved out and in the sheaths, or outer cases, by means of spirally slotted tubes, and it consists in a novel arrangement of the revolving tube and its adjuncts, whereby the spindles or pencil holders may be made of greater capacity with the cases of ordinary or a given capacity.

HOISTING GRAPPLE.—John A. Burgess, Plymouth, Mass.—The object of this invention is to facilitate the operation of hoisting barrels containing fish, or other material or substance, having but one head, designed more especially for use on fishing vessels, for hoisting and lowering fish (which are usually packed in open barrels), into the holds of the vessels.

WAGON BEDS.—W. H. Porter, Brazil, Ind.—This invention relates to improvements in wagon beds, platforms, or boxes, and consists in certain improvements in the construction and arrangements thereof, and of the connections of the brake, actuating levers, calculated to provide the most substantial and durable boxes or beds and brake apparatus that may be.

SAW FILING AND SETTING MACHINE.—Hiram D. Chance and Daniel Rishel, Llewellyn, Pa.—This invention relates to improvements in saw-filing and setting machines, and consists in an application to a pair of clamping jaws such as are used for clamping the saw and holding it to the bench, of a novel arrangement of file-holding and adjusting apparatus; also, of a setting lever.

FURNACE GRATE.—Abner B. Weeks, Rockland, Me.—This invention relates to improvements in grates of furnaces of steam-generating or other apparatus, which burn large quantities of fuel, and consists in a simple and convenient arrangement of the same in sections for dumping while the fires are burning, to discharge the refuse matter.

WATER METER.—John W. Groat, New York city.—This invention relates to improvements in the construction of that class of water meters in which the water is made to pass over a screw or spiral blade incased in a tube, the blade or screw being turned by the water, and the shaft thereof imparting motion to the recording apparatus. The invention consists in the construction of the case and the blade, and in the relative arrangement of the one with the other also in the construction of the tube inclosing the spiral blade.

WATER CLOSET.—S. R. Mann, East Cowes, England.—This invention relates to an improvement in water closets, and consists in an arrangement of parts connecting to the bottom or lower part of the pan or basin a siphon pipe, the long leg of which connects with the soil pipe, or with a trap which leads to the drain or sewer. The action of the closet is as follows: Before the handle is pulled the basin contains its normal quantity of water, say one third of a gallon, which, while serving for the proper reception of foul matters, at the same time seals the communication between the basin and the siphon pipe, which leads to the drain. When the handle is pulled, a quantity of water, say half a gallon, is quickly discharged into the basin, and the impulse and effect thus produced cause the water to flow up the short leg of the siphon and over its top bend, falling down its longer leg, and driving forward the air, or a portion of the air, contained therein, and in passing through or out of the bottom of the longer leg the water is checked in its flow, and the siphon is brought into or continued in action, drawing the contents of the basin forward so as to pass on into the soil pipe or drain, without allowing foul air to escape backwards into the basin or apartment.

BREECH-LOADER.—F. Von Martini, Lauenfeld, Switzerland.—This invention dispenses with the spiralspring at present employed for actuating the discharging mechanism in the Martini rifle, and the separate functions of these and other springs heretofore usually employed in fire-arms of the kind above referred to are fulfilled by a single flat bent spring. This flat, bent spring is placed in the lock frame behind a direct-acting or other hammer, the upper part or band of the spring partly supports the rear part of the falling breech block, a recess in the block resting on the bend of the spring. The lower parts of the spring are used for actuating the tumblers or hammer to discharge the arm, and also as a trigger or sear spring.

The Newark Daily Journal says: "We have a great idea of New Jersey as the (or, at least, a) nursery of inventors, and though a certain New England State puts in a claim, we believe (and probably a just one), to be considered as the great mother of inventors in this hemisphere, we nevertheless cannot get rid of the notion that among the Jersey Blues what may be called the genuine spirit of invention prevails to a very uncommon degree. There is scarcely a village, indeed, of any account, so far as the mechanic arts are concerned, in this comparatively small but independent State, where two or three of its denizens are not to be met with whose ingenious experiments justly entitle them to the legitimate distinction of being (in however small a measure) the benefactors of their species; nay, whose powers of discovery, could the latter be effectually brought into practice, may have the effect of revolutionizing to advantage many a branch of mechanical business at present sinking into desuetude for the lack of such regeneration. Well, what is it, it may be asked, that could, under the circumstances, be done to bring about so great a desideratum? We answer that every well-wisher to the struggling inventor—every one with the means and the will—should take part in bringing such inventor, if he cannot do it himself, in immediate contact with those that can help him, and that effectually. And who are they? We answer, none other than that long-established, universally-known, deeply-experienced, and, by all odds, the most thoroughly skillful firm at present to be met with in this country, as procurers of patents—we mean, as a matter of course, Messrs. Munn & Co., of the Scientific American, 37 Park Row, New York city, who, if anybody can, can most effectually benefit any inventor deserving the name, and whose object it may be to secure a patent for his invention."

Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING Oct. 4, 1870.

Reported Officially for the Scientific American.

SCHEDULE OF PATENT OFFICE FEES.

Table with 2 columns: Description of fee and Amount. Includes: On each caveat, On filing each application for a Patent (seventeen years), On issuing each original Patent, On Appeal to Examiner-in-Chief, On appeal to Commissioner of Patents, On application for Reissue, On application for Extension of Patent, On granting the Extension, On filing a Disclaimer, On an application for Design (three and a half years), On an application for Design (seven years), On an application for Design (fourteen years).

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. On filing a Specification of any patent issued since Nov. 20, 1866, at which time the Patent Office commenced drawing them, \$1-25. Official Copies of Drawings of any patent issued since 1836, we can supply at a reasonable cost, the price depending upon the amount of labor involved and the number of views. Full information, as to price of drawings, in each case, may be had by addressing MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

- 107,849.—COOKING RANGE.—James Albee, Chelsea, assignor to Moses Pond & Co., Boston, Mass.
107,850.—FEED-WATER HEATER.—Harrison Anderson, Peoria, Ill.
107,851.—PAPER-FEEDING APPARATUS.—John T. Ashley, Brooklyn, E. D., N. Y.
107,852.—DIAPHRAGM STOPCOCK.—W. E. Banta, Springfield, Ohio.
107,853.—GAS CARBURETER.—John L. Bartlett, Stockton, assignor for one half his right to William Biven, San Joaquin county, Cal.
107,854.—PROCESS FOR SEASONING LUMBER.—H. H. Beach, Rome, N. Y.
107,855.—HANDLE FOR MILK CAN.—Alvin C. Beckwith and G. H. Graham, Oriskany, N. Y.
107,856.—GRAIN SEPARATOR.—Frederick A. Begole, Jackson, Mich.
107,857.—CORN PLANTER.—Henry C. Beshler, Berrysburgh, Pa.
107,858.—ROLL FOR CRUSHING AND PULVERIZING MACHINE.—S. Blake, Pittsburgh, Pa.
107,859.—SNAP HOOK.—D. J. Blasir, Western, N. Y.

- 107,860.—GRAIN AND SEED CLEANER.—Newton M. Bowen, Knightstown, Ind.
107,861.—CIRCULAR SAW MILL.—Wm. Bowman, Etna Green, Ind.
107,862.—COMBINED PLOW AND HARROW.—J. F. Braucher, Lincoln, Ill.
107,863.—SLIDE VALVE.—George Bailey Brayton, Boston, Mass.
107,864.—MANUFACTURE OF BOOTS AND SHOES.—William N. Brookhouse, West Danvers, Mass.
107,865.—REED-SETTING MACHINE.—Joseph Browning, Philadelphia, Pa.
107,866.—MANUFACTURE OF SALT.—J. R. Buchanan, Louisville, Ky.
107,867.—CASTING VALVE CHAMBER AND SEAT.—John K. Burke, Rochester, N. Y.
107,868.—HOISTING APPARATUS.—Levi Burnell, Milwaukee, Wis.
107,869.—NURSERY FOOTSTOOL.—Levi Burnell, Milwaukee, Wis.
107,870.—HOSE BRIDGE.—Walter E. Cameron, Taunton, Mass.
107,871.—WRENCH.—Daniel Campbell and William Saul, Elizabeth, N. J.
107,872.—SAW-FILING AND SETTING MACHINE.—Hiram D. Chance and Daniel Rishel, Llewellyn, Pa.
107,873.—VISE.—Julius Chavanne, Porrentray, Switzerland.
107,874.—STOVE LEG.—S. E. Chubbuck (assignor to himself, Isaac Y. Chubbuck, and Stillman E. Chubbuck, Jr., copartners, Boston, Mass.
107,875.—MACHINE FOR DRILLING CARRIAGE SHACKLES.—J. B. Clark, Plantsville, Conn.
107,876.—RANGE FOR HEATING AND COOKING.—J. S. Clark, Philadelphia, Pa.
107,877.—MEDICAL COMPOUND.—H. W. Cloud, Evansville, Ind.
107,878.—MANUFACTURE OF FERTILIZERS.—John Commins, Charleston, S. C.
107,879.—FENCE.—James Comstock (assignor to himself and John W. Comstock), Greenfield, Ind.
107,880.—WATER COOLER AND REFRIGERATOR.—Levi R. Comstock, Keokuk, Iowa.
107,881.—PARLOR BEDSTEAD.—Mark Crosby, Boston, Mass.
107,882.—ROULETTE.—A. H. Crozier, Oswego, N. Y., and M. Taylor, Hartford, Conn.
107,883.—PORTABLE FENCE.—Wells Crumb, Coloma, Mich.
107,884.—STREET LAMP.—Gustavus Cuppers, New York city. Antedated September 21, 1870.
107,885.—BARREL HEAD.—Reuben De Bare, Philadelphia Pa.
107,886.—SAW MILL.—J. A. Dorr, Williamsport, Pa.
107,887.—MACHINE FOR FELTING AND HARDENING HAT BODIES.—John T. Earle, Danbury, Conn.
107,888.—VELOCIPEDE.—John Eggert, New York city.
107,889.—HEMMER FOR SEWING MACHINES.—John V. D. Elbridge, Detroit, Mich.
107,890.—WEIGHING ATTACHMENT FOR CARDING MACHINE FEEDER.—P. C. Evans, Brimscombe, England, and H. J. H. King, Glasgow, Scotland.
107,891.—STEAM PULLER.—James M. Ferguson, Summit, Miss.
107,892.—LUMBER DRYER.—Robert E. Ferguson, Chicago, Ill.
107,893.—CLOTHES WRINGER.—Robert E. Ferguson, Chicago, Ill.
107,894.—KNIFE-GROUNDING MACHINE.—E. S. M. Fernald, Saco, Me.
107,895.—SAFETY LATCH.—J. W. Fifield, Franklin, N. H.
107,896.—MACHINE FOR POLISHING THE EYES OF SEWING MACHINE NEEDLES.—Thaddeus Fowler, Tottenville, N. Y., assignor to "Excelsior Needle Co.," Wolcottville, Conn.
107,897.—MOP HEAD.—O. S. Garretson and J. G. Garretson, Buffalo, N. Y.
107,898.—MANUFACTURE OF ICE.—J. F. Gesner, West Farms, N. Y.
107,899.—GRATE.—Francis Glick and Uriah Keck, Allentown, Pa.
107,900.—WATER METER.—John Warner Groat, New York city.
107,901.—MACHINE FOR MAKING CLEVIS.—John S. Hall, Pittsburgh, Pa.
107,902.—ADJUSTABLE WINDOW SHADE.—E. W. Hastings, Boston, Mass.
107,903.—MACHINE FOR FINISHING WHEELS FOR WATCHES.—J. L. Hathaway, Norfolk, Va.
107,904.—PRESERVING WOOD.—Joshua R. Hayes, Washington, D. C.
107,905.—HORSE-COLLAR TOP.—Isaac Hicks (assignor to himself and J. O. Kendall), Hartford, Wis.
107,906.—STUMP EXTRACTOR.—Johnson Higgins, Friendship, N. Y.
107,907.—NECKTIE.—John G. Hitchcock, New York city.
107,908.—CORN PLANTER.—Hezekiah R. Holland, Wilmington, Va.
107,909.—PROJECTILE.—J. G. Hope, Topeka, Kansas.
107,910.—CEMENT FOR PAVING AND BUILDING.—J. E. Hover, Philadelphia, Pa.
107,911.—MACHINE FOR TENONING SPOKES.—John W. Huffman, Fremont, Ind.
107,912.—LIFE BOAT.—Robert Humble, Milwaukee, Wis.
107,913.—MACHINE FOR MAKING FANSTICK.—Edmund S. Hunt, Weymouth, Mass.
107,914.—WAGON LOCK.—S. S. Hurlbut, Cardova, Ill.
107,915.—GRAIN DRILL.—Joseph Ingels, Milton, Ind.
107,916.—MANSRING BARREL OF WATCH.—H. B. James, Trenton, N. J.
107,917.—SURGE RELIEVER.—J. E. Jones, Wiretown, N. J.
107,918.—MACHINE FOR TURNING OR PLANING THE INSIDE OF BELL OR OTHER CASTING.—Octavious Jones, Troy, N. Y.
107,919.—CORN SHELLER.—Elbert Jordan, Pickens County, Ala.
107,920.—HAIR CURLER.—J. W. Kenny and J. H. Adams, Albany, N. Y.
107,921.—TREADLE FOR SEWING AND OTHER MACHINERY.—G. B. Kirkham, New York city.
107,922.—COTTON OPENER.—Richard Kitson, Lowell, Mass.
107,923.—BARK MILL.—Charles Korn, Wurtsborough, N. Y.
107,924.—ROCKING OR TILTING CHAIR.—James Lamb, Hubbardston, Mass.
107,925.—MOLD-BOARD FOR PLOW.—John Lane (assignor to Haggood & Co.), Chicago, Ill.
107,926.—CAR PUSHER.—Rufus Lane (assignor of one half his right to W. G. Moore), Freeport, Ill.
107,927.—CIGAR MACHINE.—Johan Lauritzen, Newark, N. J.
107,928.—HOT AIR ENGINE.—C. P. Leavitt, New York city.
107,929.—HAMMER STRAP.—W. J. Lewis, Pittsburg, Pa.
107,930.—RACK FOR WAGON BRAKE.—W. J. Lewis, Pittsburg, Pa.
107,931.—BLANK FOR HAMMER-STRAP FOR WAGONS.—W. J. Lewis, Pittsburg, Pa.
107,932.—MEAT AND VEGETABLE SLICER.—P. H. Lindsey, Lockport, N. Y.
107,933.—GRAIN BINDER.—William Lottridge, Charles City, Iowa.
107,934.—WATER INDICATOR AND ALARM.—Mirabeau, New Albany, Ill.
107,935.—FLOUR BOLT.—John Mallin, Chicago, Ill.
107,936.—WATER CUT-OFF FOR CISTERNS.—J. R. Manny, Chicago, Ill.
107,937.—GUANO DISTRIBUTER.—W. E. Martin (assignor to James D. Barber), Oconee, Ga.
107,938.—SULKY PLOW.—H. W. Mason, Hagarstown, Md.
107,939.—PAINT MILL.—J. W. Masury, Brooklyn, N. Y.
107,940.—IRONING TABLE.—Henry McChesney (assignor to himself and J. W. Clark), Buffalo, N. Y.
107,941.—STAIR ROD.—W. T. Mersereau, Orange, N. J.
107,942.—MANUFACTURE OF PURIFIED CAST IRON FROM THE CR.—J. W. Middleton, Philadelphia, Pa. Antedated September 24, 1870.
107,943.—CUTTER HEAD FOR PLANER.—John More, New York city.
107,944.—FEATHER RENOVATOR.—M. K. Morris Council Bluffs, Iowa.

107,945.—BALANCED SLIDE VALVE.—G. F. Morse, Portland, Me.
 107,946.—EXPANDING TAP.—Frank Murgatroyd, Cleveland, Ohio.
 107,947.—PIANO LOCK.—John Murphy, Roslindale, assignor to O. J. Faxton, Boston, Mass.
 107,948.—DAMPER REGULATOR.—J. H. Murrill (assignor to himself and L. R. Kelzer), Baltimore, Md.
 107,949.—ICE CREAM PAIL.—G. A. Nash, Niles, Mich.
 107,950.—RAILWAY CAR COUPLING.—Nathan Norris, Buchanan, Mich.
 107,951.—APPARATUS FOR DRAWING AND MEASURING OIL.—Person Noyes, Lowell, Mass.
 107,952.—TIE FOR BAGS, GRAIN, ETC.—G. W. Osborn, Parkville, Mich.
 107,953.—WIRE.—J. S. Parsons, Windham, assignor to himself and A. S. Winchester, South Windham, Conn.
 107,954.—CULTIVATOR.—H. N. Pease, Toledo, Ohio.
 107,955.—FRICTION ROLLER FOR RAILWAY CAR TRUCKS.—Jethro Pencille, Lockport, N. Y., assignor to himself and Cornelius Hood.
 107,956.—CURTAIN FIXTURE.—F. G. Peoble, New York city. Antedated September 10, 1870.
 107,957.—APPARATUS FOR WASHING ORES AND MINERALS.—Edwin Platt, Charleston, S. C.
 107,958.—MACHINE FOR WASHING ORES AND OTHER MINERAL SUBSTANCES.—J. B. Platt, Augusta, Ga.
 107,959.—WASHING MACHINE.—C. M. Powers and T. L. Robinson, Flushing, N. Y.
 107,960.—TREE AND PLANT PROTECTOR.—D. R. Prindle, East Bethany, N. Y.
 107,961.—HULL OF VESSELS.—L. P. Rider (assignor to himself, William Yagle, and A. Ward), Pittsburgh, Pa.
 107,962.—MANUFACTURE OF ICE.—Moritz Rosenstein, Boston, Mass.
 107,963.—DEVICE FOR SPREADING CIRCULAR SAW TEETH.—W. H. Rudolph, Clarksville, Tenn.
 107,964.—HAND STAMP.—H. W. Safford, New York city.
 107,965.—LINK CONNECTING THE HANDLES AND VALVE-RODS OF PUMPS.—Samuel Selden and Matthew Griswold, Erie, Pa.
 107,966.—HEAD BLOCK FOR SAW MILL.—F. W. Shelley, Muncie, Ind.
 107,967.—ROOFING.—George Shove, Yarmouth Port, Mass.
 107,968.—TEMPORARY PAPER BINDER.—F. M. Smith, Syracuse, N. Y.
 107,969.—READING GLASS.—J. H. Smith, Brooklyn, E. D., N. Y.
 107,970.—ADJUSTABLE TIME TABLE.—L. J. Smith (assignor to himself and H. D. Blake), New York city.
 107,971.—CAR COUPLING.—L. J. Smith (assignor to himself and H. D. Blake), New York city.
 107,972.—CORN HARVESTER.—M. A. Smith, Middlefield, N. Y.
 107,973.—PLOW.—C. W. Snead, Milledgeville, Ga.
 107,974.—DEVICE FOR ATTACHING STEELS TO CORSETS.—W. A. Starrett and H. E. Starrett, Lawrence, Kansas. Antedated September 24, 1870.
 107,975.—GUANO DISTRIBUTER.—E. R. Stedman, Sparta, Ga.
 107,976.—CONSTRUCTION OF STEAM BOILERS AND TANKS.—H. J. Stein, Hannibal, Mo.
 107,977.—STEAM PUMP.—C. L. Stevens, Galesburg, Ill., assignor to himself, A. A. Dentan, and D. G. Dentan. Antedated September 26, 1870.
 107,978.—SHAFT COUPLING.—Timothy F. Taft, Worcester, Mass., assignor to Arrin Wood and J. F. Light.
 107,979.—MECHANISM FOR OPERATING COMBER BOARDS.—J. S. Templeton, Glasgow, Great Britain.
 107,980.—GRAIN AND SEED DRILL.—G. M. Thirkittle, Belleville, Mich.
 107,981.—MACHINE FOR LASTING SHOES.—C. H. Trask, Lynn, Mass.
 107,982.—DRYER.—Edmund Trowbridge and Jas. M. Jones, Detroit, Mich.
 107,983.—LOCOMOTIVE.—J. M. Ure, Glasgow, Great Britain. Patented in England March 18, 1868.
 107,984.—ROTARY BAKE OVEN.—Joseph Vale, Beloit, Wis.
 107,985.—GRINDER FOR HARVESTER CUTTER.—S. O. Vaughan, and P. W. Vaughan, DeKalb, Ill.
 107,986.—THRASHER AND SEPARATOR.—Albert A. Walker (assignor to W. C. Leybun, and G. A. Fisk), Sparta, Wis.
 107,987.—FURNACE GRATE.—Abner B. Weeks, Rockland, Me.
 107,988.—RAILWAY CAR COUPLING.—G. W. Wheat, Philadelphia, Pa.
 107,989.—CORRUGATED METALLIC PAVEMENT.—Geo. Wilkes, New York city.
 107,990.—COMBINED HORSE-POWER AND BALING PRESS.—C. A. Wright, Rodney, Miss.
 107,991.—WASHING MACHINE.—George Wright, Savannah, Mo.
 107,992.—TYPE PLANNER.—Walter Sumner Wright, Chicago, Ill.
 107,993.—ELECTRO-MAGNETIC SAFE LOCK.—Charles O. Yale, New York city. Antedated September 24, 1870.
 107,994.—THRASHING MACHINE.—Joseph Allonas, Mansfield, Ohio.
 107,995.—SPRING BED.—Lewis Anderson, Chicago, Ill.
 107,996.—CLOTHES RACK.—Herman Baumann and Urban Mueller, Canton, Ohio.
 107,997.—COMPOUND FOR COLORING PAPER AND OTHER FABRICS.—Frederick Beck, New York city.
 107,998.—NUT LOCK.—Jonathan Bell, New York city.
 107,999.—FEATHER RENOVATOR.—Elias Bickell and Michael F. Noracok, Milton, Pa.
 108,000.—AUXILIARY TABLE ATTACHMENT.—James Blake, Scranton, Pa.
 108,001.—RADIATOR.—Edward Bourne, Pittsburgh, Pa.
 108,002.—SUBSOIL PULVERIZING ATTACHMENT FOR PLOW.—L. D. Burdlin, Paris, Ky.
 108,003.—KNITTING MACHINE.—W. W. Burson and John Nelson, Rockford, Ill. Antedated Sept. 30, 1870.
 108,004.—PLOW.—Manlove Butler, Vernon, Ind.
 108,005.—APPARATUS FOR CARBURETING AIR AND GAS.—Henry A. Chapin, New York city.
 108,006.—LIFE PRESERVER.—E. M. Crandal, Marshalltown, Iowa. Antedated September 26, 1870.
 108,007.—VEGETABLE CUTTER.—Francis Curtis, Brattleborough, Vt.
 108,008.—CLOTHES DRYER.—W. A. Daggett, Landis township, N. J.
 108,009.—GAS RETORT.—Darius Davison, New York city.
 108,010.—CLAPBOARD GAGE.—Abram Deyo, Rockford, Ill.
 108,011.—SAW.—Henry Disston, Philadelphia, Pa.
 108,012.—BRICK MACHINE.—D. P. Dobbins and James Sangster, Buffalo, N. Y.
 108,013.—MACHINE FOR MILLING CARRIAGE-SPRING HEADS.—William Evans, New Haven, Conn.
 108,014.—FLUE.—Nelson Fouche, New Orleans, La.
 108,015.—MACHINE FOR SCRAPING CHAIR-BACKS.—Erastus S. French, Westminster, Mass.
 108,016.—ROTARY ENGINE.—Samuel Gibson, Lancaster, assignor to himself and I. W. G. Wierman, York, Pa.
 108,017.—BOAT FOR BARN-DOORS, ETC.—M. R. Green, Warwick, N. Y.
 108,018.—BED BOTTOM.—Benjamin Gregg, Bennington, Vt.
 108,019.—WASHING MACHINE.—Luke Hale, Hollis, N. H.
 108,020.—SEWING MACHINE.—Thomas J. Harper, Atlanta, Ga.
 108,021.—MEAT MANGLER.—James T. Harvey and William Dixon, Marysville, Pa.
 108,022.—REVOLVING FIRE-CRACKER PISTOL.—J. H. Hawes and Orville W. Brock, Monroeton, Pa., assignors to J. H. Hawes.
 108,023.—TRIP-HAMMER AND ANVIL STOCK.—J. C. Higgins, Skowhegan, Me.
 108,024.—SNAP HOOK.—Asahel A. Hotchkiss, Sharon, Conn.
 108,025.—BEER FAUCET.—Christian Jakob, New Orleans, La.
 108,026.—MOLDING CUTTER.—Nicholas Jenkins, New York city.
 108,027.—PANELING MACHINE.—Nicholas Jenkins, New York city. Antedated September 24, 1870.
 108,028.—TOY TORPEDO.—T. J. Johnson (assignor to H. P. Piel & Co.), Cincinnati, Ohio.

108,029.—GAS REGULATOR.—Peter Keller, New York city.
 108,030.—COMPOSITION FOR DESTROYING WORMS IN FRUIT TREES.—Solomon Kepner, Pottstown, Pa.
 108,031.—GATE.—Solomon Kepner, Pottstown, Pa.
 108,032.—PLOW AND PLANTER.—Peter Kling, Springfield, Ill.
 108,033.—SEWING MACHINE.—Albert Komp, New York city.
 108,034.—PUTTING UP MEDICINE.—Frederic Kraus, Cincinnati, Ohio.
 108,035.—CHURN.—Alexander Ladd, St. Lawrence, N. Y.
 108,036.—HOMINY-MILL.—John K. Leedy, Maurertown, Va.
 108,037.—CULTIVATOR.—James R. Little, Galesburg, Ill.
 108,038.—ADDRESSING MACHINE.—James McPatrick, Lena, Ill.
 108,039.—BUSTLE.—Donald McInroy, Brooklyn, E. D., N. Y.
 108,040.—SAW.—W. F. Millman (assignor to Henry Disston & Son), Philadelphia, Pa.
 108,041.—ELECTRO-PHOTO DAMASKING AND ENAMELING.—A. G. Morvan, New York city.
 108,042.—METAL PLATE OF IRON AND STEEL.—Jas. Myers, Jr., Williamsburgh, N. Y.
 108,043.—CUSHION, MATTRESS, ETC.—T. H. O'Brien, Providence, R. I.
 108,044.—CORN PLANTER AND MARKER.—Floyd Ogden, Fishersville, Ky., assignor to himself and J. T. Rose, Utica, Ind.
 108,045.—MILLSTONE BUSH AND BEARING.—Andrew Ortlip, East Vincent, Pa.
 108,046.—SHOW STAND.—Joseph R. Palmenberg, New York city.
 108,047.—SHOVEL PLOW.—P. B. Parcell, Ashmore, Ill.
 108,048.—FRUIT DRYER.—Oliver P. Pence, Des Moines, Iowa.
 108,049.—FANNING MILL.—Christian Peterson, Red Wing, Minn.
 108,050.—WATER HEATER.—Jas. Raisbeck and T. A. Raisbeck, New York city.
 108,051.—SEED PLANTER.—Blachman A. Ramsey, Trenton, Tenn.
 108,052.—SHUTTER FASTENER.—Andrew Rankin, Philadelphia, Pa.
 108,053.—WHEELBARROW.—R. M. Reynolds, East Saginaw, Mich.
 108,054.—WASHING MACHINE.—Abner Riggs, Frostburg, Md.
 108,055.—COMPOSITION FOR COVERING STEAM BOILERS, AND OTHER PURPOSES.—John Riley, Troy, N. Y., assignor to the United States and Foreign Salamander Feltung Co.
 108,056.—FIELD ROLLER AND FURROWING MACHINE.—M. M. Robbins, Centerville, Ind.
 108,057.—LAND ROLLER.—I. W. Searles, Tiffin, Ohio.
 108,058.—MANUFACTURE OF IRON AND STEEL.—Lorenzo Sibert, Staunton, Va. Antedated Sept. 24, 1870.
 108,059.—SAW.—John Smith (assignor to Henry Disston and Hamilton Disston), Philadelphia, Pa.
 108,060.—TANNING VAT.—J. E. Smith and C. L. Smith, South Deham, Mass.
 108,061.—EARTHEN TEAPOT.—Thomas Smith, Jr., Boston, Mass.
 108,062.—SHAFT COUPLING FOR VEHICLE.—John Steele, Sheldon, Ill.
 108,063.—BUTTON HOOK AND HANDKERCHIEF HOLDER COMBINED.—G. D. Stevens, New York city.
 108,064.—LANTERN.—Peter Sweeney, New York city.
 108,065.—CORN PLANTER.—Nathan Swigart, Richfield, Ohio.
 108,066.—TONGS FOR FORGING THE ARMS ON FIFTH WHEELS.—Wales Terrell, Ansonia, Conn.
 108,067.—METALLIC BINDING FOR TEXTILE FABRICS.—Jas. Twamley, New York city.
 108,068.—TILES FOR ROOFING, ETC.—William Utley, Troy, N. Y.
 108,069.—HARVESTER.—A. H. Wagner, Chicago, Ill.
 108,070.—SAUSAGE STUFFER.—Henry Whaler, Henry Metz, and Ludwig Heinze, Freeport, Ill.
 108,071.—CAP FOR HORSE COLLAR.—J. F. Walsh, Hazel Green, Wis.
 108,072.—RENDERING LEATHER IMPERVIOUS TO HYDROCARBON LIQUIDS.—Albin Warth, Stapleton, N. Y.
 108,073.—LETTER BOX.—E. C. Weld (assignor to himself and T. C. Glazier), New York city.
 108,074.—SEWING MACHINE TABLE.—J. J. Wheat, Wheeling, W. Va.
 108,075.—SECTIONAL STEAM GENERATOR.—Harry Whittingham, New York city.
 108,076.—HAY KNIFE.—Daniel H. Wile, New Pittsburgh, Ohio.
 108,077.—UMBRELLA.—R. C. Williams, Frankfort, Ky.
 108,078.—LAMP BURNER.—Samuel R. Wilmot, Bridgeport, Conn.
 108,079.—JOURNAL BOX.—E. D. Murfey, New York city, assignor to Manhattan Packing Manufacturing Co.
 108,080.—JOURNAL BEARING.—E. D. Murfey, New York city, assignor to Manhattan Packing Manufacturing Co.
 108,081.—JOURNAL BOX.—E. D. Murfey, New York city, assignor to Manhattan Packing Manufacturing Co.

REISSUES.

4,137.—DEODORIZING APPARATUS FOR CLOSET.—Earth Closet Company, Hartford, Conn., assignee of Henry Moulle and Henry John Girdlestone.—Patent No. 31,474, dated June 15, 1869. Division A.
 4,138.—EARTH CLOSET.—Earth Closet Co., Hartford, Conn., assignee of Henry Moulle and H. J. Girdlestone.—Patent No. 31,474, dated June 15, 1869. Division B.
 4,139.—HARVESTER.—Rufus Dutton, Yonkers, N. Y.—Patent No. 31,709, dated March 19, 1861; reissue No. 1,762, dated Sept. 13, 1864. Division A.
 4,140.—COCK.—J. P. Gallagher, St. Louis, Mo.—Patent No. 48,673, dated July 11, 1866.
 4,141.—WASHING APPARATUS.—J. T. Grose (assignor to himself and W. E. Kinnear), Upper Sandusky, Ohio.—Patent No. 38,585, dated Jan. 4, 1870.
 4,142.—MACHINE FOR BUNDLING WOOD.—W. L. Williams and T. J. O'Connor, New York city, assignees of W. L. Williams.—Patent No. 26,147, dated Nov. 15, 1859.
 4,143.—POSTOFFICE POST-MARKING AND CANCELING HAND STAMP.—M. P. Norton (assignor to H. M. Inalls), Troy, N. Y.—Patent No. 33,175, dated April 14, 1863; reissue No. 1,748, dated Aug. 23, 1864; reissue No. 3,586, dated Aug. 3, 1869. Division A.
 4,144.—HAND CANCELING STAMP.—M. P. Norton, Troy, N. Y., assignor, by mesne assignments, to the "Secombe Manufacturing Co.," New York city.—Patent No. 33,175, dated April 14, 1863; reissue No. 1,748, dated August 23, 1864; reissue No. 3,586, dated August 3, 1869. Division B.
 4,145.—FRUIT BASKET.—Lauren Carpenter, St. Joseph, Mich.—Patent No. 102,488, dated May 3, 1870.
 4,146.—TABLE LEAF SUPPORTER.—G. L. Gerard, New Haven, Conn.—Patent No. 106,353, dated Aug. 16, 1870.
 4,147.—COAL HOD.—E. A. Jeffery, New Haven, Conn.—Patent No. 52,856, dated Feb. 27, 1866.
 4,148.—MANUFACTURE OF RUBBER OR GUTTA-PERCHA HOSE.—Edward L. Perry and Charles Manheim, New York city, assignors to the Combination Rubber Company, and the Gutta-percha and Rubber Manufacturing Company.—Patent No. 92,353, dated July 6, 1869.

DESIGNS.

4,375.—CLOCK FRONT.—John H. Bellamy, Charlestown, Mass., assignor to S. D. Niles and Benjamin A. Ward of three fourths of his right.
 4,376.—STOVE PLATE.—L. W. Harwood (assignor to Fuller, Warren & Co.), Troy, N. Y.
 4,377 to 4,379.—IRON RAILING FOR HORSE STALL.—J. L. Jackson, New York city. Three Patents.
 4,380.—LID OF A FEED CUP IN BIRD CAGE.—Otto Lindenmann, New York city.
 4,381.—MEDALLION OR CAMEO.—Leopold Salomons, London, England, assignor to J. W. Chisholm and K. Chisholm, New York city.
 4,382.—SPOON AND FORK HANDLE.—B. D. Beiderhase, New York city.
 4,383.—COLLAR BOX.—A. L. Elliot, Boston, Mass.
 4,384.—BOX FOR HOLDING AND DISPLAYING BRAIDS, TAPES, ETC.—S. B. Fleischer, Philadelphia, Pa.
 4,385.—PLATE FOR PITCHER STAND.—H. O. Fritsch, New York city.
 4,386.—KNITTED FABRIC.—Edward Greasy, Philadelphia, Pa.

4,387.—COFFIN.—E. T. Smith and J. S. Winston, New York city.
 4,388.—DRESS GOODS.—Matthew Townsend, Canton, Mass.

APPLICATIONS FOR THE EXTENSION OF PATENTS.

MACHINE FOR HUSKING CORN.—Robert Bryson, Schenectady, N. Y., has applied for an extension of the above patent. Day of hearing Nov. 23, 1870.
 MOWING MACHINE.—Andrew M. Hall, of Falmouth, Me., has petitioned for an extension of the above patent. Day of hearing Dec. 7, 1870.
 MANUFACTURING CALENDER ROLLS.—John Worsley, Providence, R. I., has applied for an extension of the above patent. Day of hearing Dec. 7, 1870.
 MACHINES FOR POINTING SHOE PEGS.—George Hoyt, Ashland (formerly Holderness), N. H., has petitioned for an extension of the above patent. Day of hearing Dec. 7, 1870.

New Patent Law of 1870.

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