

**GRANARY.**—Charles T. Moorman, Jr., Jamestown, O.—This invention has for its object to furnish an improved granary, which shall be so constructed that rats and other vermin cannot get into it, which shall be firm and solid, will not "creel" with weight, will protect the grain better and may be readily moved without injury to the building. The entire granary is supported upon posts which are set at an angle of about forty degrees, and are arranged in pairs, the upper ends of the posts of each pair being firmly secured to each other. Hanging posts are inclined at an angle of about thirty degrees in the opposite direction from the above mentioned posts. By other and suitable construction the granary is fully protected from rats and other vermin, as the inclination of the exposed parts affords them no chance to stand or sit and gnaw.

**EARTH AUGER.**—Isaac N. Pyle, Cameron, Mo.—The invention consists of an earth borer in which two jaws are affixed to the lower ends of upright arched plates, which are, respectively, attached to the pendent arms of a shank. This shank is double, its upper or stem parts being held together by means of straps placed around them. A wedge can, from below, be forced in between the parts of the shank to spread the jaws and plates to a suitable extent. The plates are slotted, and are secured to the pendent parts of the shank. Two other curved plates are placed between the plates and have jaws flexibly attached to their lower ends, and are only used in sand. The jaws serve as valves to let the sand in and prevent its escape, thus constituting a trap in which the sand bored out will be collected convenient for removal.

**BAKE PAN.**—Richard D. McDonald, Jersey City, N. J.—This invention relates to apparatus to be placed in ovens for baking bread or roasting meats, and all similar purposes; and it consists in the mode of connecting the parts together, or more definitely in a beveled flange around the edge of the upper part of the pan. The angle of this flange, from a vertical line, is designed to be about the same as that of the sides and ends of the lower part of the pan, and is designed to form, with the lower part, a tight joint, so as to confine the gases or steam generated in the pan from the article being roasted or baked.

**BURIAL CASE.**—Collins C. W. Morgan, of Holly Springs, Miss.—This invention relates to connecting the two parts of a burial casket—made of terra cotta or other suitable material—by means of clips or clasps, and to constructing said clips or clasps with handles, thereby dispensing with the necessity of the handles ordinarily provided for coffins.

**SUBSOIL PLOW.**—Christian Myers and William Gummow, of Marysville, Cal.—The invention consists in the mode of adjusting the subsoil plow, whereby it can be shifted independently and also arranging it with the common plow in such a manner as to avoid the necessity of the off horse walking over the loosened bottom of the furrow or in a very deep furrow, as in subsoiling in the common way. It also avoids the tramping or packing of the loosened earth in the bottom of the furrow, common to the ordinary way.

**BRACELET.**—William Edge, of Newark, N. J.—This invention has for its object to improve the construction of chain work bracelets, so as to better adapt them for keeping their form when worn, while at the same time making them more beautiful and elegant in appearance. It consists in a bracelet formed by turning the edges of a piece of chain work down over the edges of a metallic plate.

**DRAWERS.**—John Bellamy, of New York city.—This invention consists of drawers for men's wear, in which the parts forming the legs are cut by novel patterns, the outlines of which are of such form that with inflexible material the legs may fit the wearer tightly and not draw or bind across the knees, as drawers of inflexible goods now are apt to do unless made uncomfortably large.

**FEATHER RENOVATOR.**—Theodore J. Adams, of Ansonia, Conn.—This invention has for its object to furnish an improved apparatus for renovating feathers, moss, hair, etc. In using the machine, the substance to be renovated is placed in an inner cylinder through a door, which is then tightly closed, and steam is admitted through a hollow gudgeon which enters the inner cylinder through the perforations of the wall and a pipe, which insures the substance being thoroughly acted upon, the steam entering the substance both from the outside and center. When the substance has been sufficiently steamed the steam is shut off and the door opened, allowing the moisture to escape, the heat communicated by the steam being sufficient to evaporate all the moisture and thoroughly dry the substance.

**LETTER BOX.**—Anna T. Sinclair, of New York city.—This invention has for its object to construct a letter and newspaper drop box, whose contents will be protected by a false bottom whenever the lid is opened, so that the fraudulent removal of letters or papers is effectually prevented. The invention consists in forming the said false bottom of two hinged plates that are arranged within the box and connected with the lid, or secured in such manner as to overlap each other when the lid is opened, and drop apart when the same is closed.

**HAND VISE.**—Thomas Overton, of Corpus Christi, Texas.—The object of this invention is to furnish an implement or tool for the use of mechanics, which can not only be used as a hand vise for holding small articles, but which can be attached to bits or augers for gaging the depth of the hole bored, and also countersinking such hole for screws. A slot is provided in the screw head, for convenience in setting saws.

**FOLDING BOX BED.**—Alfred G. Bayles, of New York city.—This invention has for its object to furnish an improved folding box bed, which, when folded, will occupy but little space, while at the same time furnishing a convenient receptacle for clothing and various other articles, and which, when opened out, will furnish a complete bed. The box or body of the bed is made in two parts which are hinged to each other at one side, and may be opened out. The spaces on which the two parts of the mattress rest are made of such a depth that the edges of said parts may project sufficiently above the mattress to give space for the bed clothes, so that when the bed is made up and the edges of the bed clothes tucked in around the edges of the mattress, the box may be opened and closed without disturbing the make up of the bed. The adjacent edges of the two parts of the box, upon its hinged side, are cut away so that they may not inconvenience the sleeper, the mattress, when the bed is opened out, bulging over said recessed edges so as to be continuous. The edges of the part opposite the hinges may be provided with a board, which, when the box is opened, serves as a foot board to the bed. The bolster, when arranged for use, is placed upon a partition, the ends of which rest upon inclined cleats attached to the box, and the inner edge of which is hinged to the edge of the horizontal partition. The part of the box beneath the partitions is divided into three spaces adapted to hold clothing and other purposes.

**MACHINE FOR CUTTING NAIL PLATES.**—Thomas Searle, Pottstown, Pa.—The invention consists in constructing and combining a feed table, feed rolls and clamp rolls with sheet cutters, so that a pair of tongs may pass freely and conveniently nearly up to the cutters, and thereby cause nearly the whole sheet of metal to be utilized. Secondly, it consists in bringing the frame that holds the feeding mechanism so that it may be turned back from the cutters and allow easy access to them. Thirdly, it consists in causing the feed rolls to rotate a little after the sheet has reached one or both of the gages so as to insure that any slight disarrangement which may have taken place will be remedied and the sheet presented to the knives always at exactly the same angle.

**IMPROVEMENT IN THE ART OF DENTISTRY.**—Robert Arthur, M. D., Baltimore, Md.—The invention consists in a method of separating or spacing teeth by means of a thin abrading disk, which is rotated between them, and which completes the operation in greatly less time, with much less pain and annoyance to the patient, and in a far more workmanlike manner.

**RAILWAY SNOW PLOW.**—Jerome B. Hulbert and James Anderson, of Hermon, N. Y.—The invention consists, first, in making the lower part of the sides of a snow plow vertical, and the upper part of said sides backwardly sloping, so as to cause the snow to rise as it is pushed laterally after passing the point, and the less compacted upper portion thereof to be turned over one side of the track. Secondly, it consists in hinging the sides of a snow plow so as to adapt it to light or heavy snows. Thirdly, it consists in the mode of combining an open front plow and screw with elevations, drive mechanism, and air forcing apparatus for compressing, elevating and discharging snow.

**COMBINED CHAIR AND BED.**—Jonathan H. Green, of Louisville, Ky.—This invention consists in a chair composed of a supporting frame having legs, a seat frame hinged to said frame, and a back frame having arms attached thereto, and hinged to said seat frame so that the parts of chair may be unfolded to make a bed.

**STEAM BOILER AND FURNACE.**—George W. Lascell, Syracuse, N. Y., assignor to himself and Hugh Robinson, Jersey City, N. J.—This invention has for its object to furnish an improved boiler and furnace for generating steam and for heating and evaporating purposes, which shall be so constructed as to consume the smoke and combustible gases that may be developed in the combustion of the fuel, and which shall, at the same time, be simple in construction and of greater steam generating, heating, or evaporating power than boilers and furnaces constructed in the ordinary manner. The tops of the fire chambers are left open, and the air to support the combustion passes in through the said open tops and passes down through the dead coal to the live coal in the lower part of said chambers, where the combustion takes place. The smoke and gaseous products of combustion pass through openings or flues in the side of the lower part of the boiler, where they mix with air entering through perforations in the bottom of said boiler and are consumed. The perforations in the bottom of said boiler are regulated by means of a damper. The walls of the boiler are made double to form a water space. The water spaces between the double walls of the fire chambers are connected by pipes, into one of which the water is introduced from the pump or reservoir. The other end of the pipe, that is broken to connect with the pump or reservoir, is connected with the space between the double walls of the boiler, so that the water, before passing into the boiler, circulates around all the fire chambers. The spaces between the double walls upon the opposite sides of each fire chamber are connected by pipes which are coiled or zigzagged across the inner ends of said chambers so as to be exposed to the heated products of combustion as they pass from said chambers into the interior of the boiler. The water space between the double walls of the boiler is made wider at the lower than at the upper part to form a contracted well or chamber, into which the smoke and other combustible gaseous products of combustion from the fire chambers are introduced, and in which they are burned by the aid of the air introduced through the openings in the bottom of the boiler, which openings are regulated by the damper to introduce exactly the amount of air required to effect their thorough combustion. The lower part of a water pipe is coiled to form a dome-shaped partition at the top of the contracted part or combustion well, in which the gases are consumed, which dome-shaped coil, in a measure, checks the ascent of the smoke and gases and secures their perfect combustion. This pipe may pass up into and be combined with the dome or steam chest. The steam is conducted away through the pipe. The incombustible products of combustion pass up, through short pipes inserted in the double walled top of the boiler, into the space between the said top and the bottom of the dome, whence they pass into the space enclosed by the jacket, which incloses the dome and projects down along the sides of the boiler. The lower end of the jacket is left open, and is surrounded by another jacket which incloses the lower part of the boiler and the lower part of the first jacket, and extends up so as to overlap the lower part of the dome. The bottom and the top of the second jacket are closed, and the incombustible products of combustion escape from its upper part into the flue.

**CAR COUPLING.**—C. S. Flower, of Kickapoo City, Kansas, and C. F. Graves, Hickory, Iowa.—This invention has for its object to furnish an improved car coupling, which shall be so constructed that it will uncouple automatically should one or more cars get off the track, turn over, or drop down below the level of the other cars. Upon the forward end of the draw bar is formed the bumper head, which is attached to the car in the ordinary manner. The forward part of the bar or head becomes gradually wider, and upon the upper side of its forward end is formed a strong upwardly projecting flange, for the lower end of the coupling pin to rest against to sustain the draft, and which is made in the arc of a circle. A block, made of cast iron, is pivoted, toward its rear end, to the bar. Its forward end does not extend quite to the flange; to its side edges are bolted bars or plates made of wrought iron, and the forward ends of which extend forward to the flange, and are notched upon their lower edges to fit upon said flange. To and between the forward ends of the bars is swiveled a short bar through which the coupling pin passes. By this construction should one or more of the cars get off the track or turn over, the block will swing around upon its pivoting bolt, and as soon as the end of the coupling pin has slipped from the end of the flange, the swiveled bar will turn, allowing the coupling link to slip from the coupling pin. By suitable construction, when the cars are in proper position upon the track, a spring holds the block down upon the draw bar; but should one or more of the cars drop below the level of the other cars, the forward end of the block will be raised, compressing the spring and raising the lower end of the coupling pin above the flange, allowing the swiveled bar to turn and the coupling link to slip from the coupling pin.

**BRICK MACHINE.**—Henry B. Ramsey, Rockville, Ind., assignor to A. K. Stark, of same place.—This invention relates to the class of brick machines adapted for a simultaneous and continuous working and discharge of the clay. The lower end of a vertical shaft revolves in the center of the bottom of a tank attached to the frame. The upper part of the shaft revolves in bearings attached to the upper part of the frame, and to its upper end is attached the sweep or lever by means of which the power is applied. To the shaft within the tank, and at different heights, are attached radial knives or arms by which the clay is worked into proper condition for entering the molds. The lowest knife revolves near the bottom of the tank and is so formed as to force the clay through an opening in the forward part of the said bottom, made of the size of a brick. An adjustable frame is secured to the frame below the tank to support the molds. The molds are inserted beneath the middle part of the tank from one side. To a shaft pivoted to the lower part of the frame work are attached arms which project upward and press against the rear side of the mold last inserted and push it forward beneath the openings into position to receive the clay. By suitable mechanism the molds may be moved forward twice at each revolution of the shaft. The rock shaft is drawn back to its place, when the arm is released, by a coiled or equivalent spring, and it may be operated by hand to move the first mold forward beneath the openings before the machine is started. As the filled molds move out upon the frame, they are removed by the off-bearers.

**CORN HARVESTER.**—Jacob Bowers, Iola, Kansas.—This invention has for its object to furnish an improved machine for cutting and shocking corn. The wheels, are securely attached to the axle, so as to carry the said axle with them in their revolution. The forward part of the platform is pivoted at its rear end to the frame, so that the forward end of the said part may be raised and lowered to cut the corn higher or lower, as may be desired. The forward end of the pivoted part of the platform by suitable means is held in any position into which it may be adjusted. To the forward end of the pivoted part of the platform are attached two stationary knives, the inner edges of the forward parts of which incline from each other, to serve as guides to bring the stalks into proper position to be cut by a vibrating cutter, which is pivoted to the platform. The forward part of the side edges of the cutter are made inclined or curved, to adapt it to serve as guides to conduct the stalks into proper position to be cut, and the rear part of the side edges concave to give them a better hold upon the stalks while cutting them. The cutter is vibrated by the advance of the machine. To the platform are attached two upright frames, between which the corn stalks, after being cut, are carried back to the rear part of the platform. To the top bars of the upright frames are attached springs which are designed to keep the corn stalks from falling forward while being carried rearward. Proper means are provided to serve as a reel to sweep the top parts of the corn stalks into the space between the upright frames and hold them in, or nearly in, a horizontal position. A further combination of ingenious devices removes the corn shock from the platform and sets it on the ground.

**TERRA COTTA GRAVE COVER.**—Collins C. W. Morgan, Holly Springs, Miss.—This invention consists of a terra cotta cover for graves, being in the form of an inverted hollow cover adapted to inclose the mound, with a base resting on the ground around it, the base being a large projecting flange with a groove descending from the head to the foot, and forming a water course for conducting the water shed from the cover into a gutter at the foot to prevent it from washing the earth away around its base.

**WASHING MACHINE.**—John Turner, Oakdale Station, Pa.—This invention has for its object to furnish an improved washing machine, and it consists in the two closely slotted self-adjusting racks and the vibrating lever presser, slotted at right angles with the racks. The clothes to be washed are divided, and part is placed upon each side of the presser. As the presser is moved in either direction, the clothes in front of said presser are forced against the rack, the pivots of which enable the said racks to adjust themselves so that the clothes may be pressed evenly. As the presser retires, the clothes fall back into the water to be again saturated.

**WHEEL FOR VEHICLE.**—Walter D. Howell, Newburgh, N. Y.—The main body of the hub is cast with a closed outer end and with a solid ring flange for the outer edges of the inner ends of the spokes to rest against. At the inner side of the flange is formed a ring groove to receive the inner ends of the spokes, the shoulder at the inner side of said groove being made low. The inner ends of the spokes are made widest at their extreme ends, and a ring plate is made, somewhat dishing so as to press against the edges of the said spokes. Upon the outer side of the plate is formed a circular bead, which fits into a circular groove in the side of the nut, so as when the nut is screwed up to hold the segmental plate securely in place. Putty, with iron filings mixed into it, may be placed between the plate and the edges of the spokes to give the said plate a firmer hold upon the said spokes. Upon the inner surface of the hub is formed an offset or shoulder, and in the inner surface of the inner end of the hub is cut a screw thread into which screws a tubular nut, and when the hub and nut are screwed together it will be impossible for the wheel to work itself loose or off. By this construction a chamber is left between the end of the halved nut and the shoulder, which is designed to be filled with sponge, and thus to serve as an oil reservoir, into which oil may be poured.

[OFFICIAL.]

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For which Letters Patent of the United States were granted.

FOR THE WEEK ENDING DECEMBER 3, 1872, AND EACH BEARING THAT DATE.

SCHEDULE OF PATENT FEES:

On each Caveat.....	\$10
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Weaving chair seats, frame for, Aldrich and Watkins.....	183,616
Windmill, E. and D. C. Stover.....	183,601
Wire spring mattress, F. W. Hoffman.....	183,583
Wrench, W. Johnson.....	183,536

APPLICATION FOR EXTENSION.

Application has been duly filed and is now pending for the extension of the following Letters Patent. Hearing upon the applications appointed for the day hereinafter named.

23,268.—BOTTLE STOPPER FASTENING.—H. W. Putnam. February 26, 1873.

EXTENSIONS GRANTED.

- 22,165.—PUMP.—A. Cooley.
22,364.—CAR SEAT AND SLEEPING COUCH.—P. B. Green.
22,232.—HORSE RAKE.—C. Garver.
22,310.—MACHINE FOR MAKING NUTS.—J. B. Savage.
22,311.—LAMP SHADE SUPPORTER.—W. F. Shaw.

DESIGN PATENTED.

6,281.—NEWEL POST.—R. Lowry, Nashville, Tenn.

TRADEMARKS REGISTERED.

- 1,075.—MOWER, ETC.—Adriance, Platt & Co., Poughkeepsie, N. Y., and N. Y. city.
1,076.—ISINGLASS.—Cape Ann Isinglass and Glue Company, Rockport, Mass.
1,077.—CONFECTIONERY.—H. Chaurant & Co., New Orleans, La.
1,078.—SUGAR CURED HAMS.—J. GRUBB & Co., Cincinnati, O.
1,079.—DRESS TRIMMINGS.—W. I. Peake, New York city.

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PROBABLY no investment of a small sum of money brings a greater return than the expense incurred in obtaining a patent even when the invention is but a small one. Larger inventions are found to pay correspondingly well. The names of Blanchard, Morse, Bigelow, Colt, Ericsson, Howe, McCormick, Hoe, and others, who have amassed immense fortunes from their inventions, are well known. And there are thousands of others who have realized large sums from their patents.

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