

Recent American and Foreign Patents.

Composition to be Applied to the Surface of Paper for Artificial Flowers.

Paul E. Vacquerel, New York city.—This is a composition for protecting and preserving the vegetable paper applied to artificial flowers, consisting of colophony, gum dammar, and camphor, spirits turpentine, poppy seed oil, kerosene, and castor oil. It is an improvement on the composition patented by the same inventor, October 21, 1862.

Improved Scroll Saw Table.

George Halkett Patullo, Dexter, Mich., assignor to himself and David A. Boggs, same place.—This invention relates to the mode of adjusting the tables of scroll and similar saws for sawing scrolls or other forms, square or on a bevel; and consists in the construction and arrangement of parts, by means of which the table is rotated on its pedestal while standing level or at any desired angle with the saw.

Improved Hand Potato Digger.

Horace S. Phelps and Alfred Phelps, Franklin, N. Y.—In using the machine, the upper end of a jointed handle is pushed outward, which raises one set of prongs away from another set, and allows the latter to be thrust into the ground in the manner of an ordinary fork. The end of one handle is then drawn toward another handle, which forces the prongs into the ground to meet the others, inclosing the potatoes between the prongs. The operator then lifts the digger upward, draws it toward him, shakes out the dirt, and drops the potatoes into a basket by pushing one end of a handle outward, leaving the parts in position for the prongs to be again thrust into the ground.

Improved Mitten.

Solomon J. Clute and Daniel M. Durfee, Rockwood, N. Y.—This invention relates to the old and well known class of one fingered mittens, and consists in constructing them from a number of pieces, cut with much economy of material. The palm comprises a piece, which is the palm of the forefinger, another piece, which is the side and back of the front finger and part of the back of the hand, with an extension to take the place of the fourchette of the first finger. The edge of the said extension is sewn to the edge of the part not so extended. The palm and back are formed from the junction of the fore and second fingers at the back of the wrist. An extension takes the place of the fourchette of the forefinger, and is sewn to the edge of the palm, along the inside of the second finger.

Improved Hydrant.

Michael Allen, Schenectady, N. Y.—To pack the joints so as to prevent leakage between the bar connecting the valve with the screw which operates to open and close the same and the bottom of the groove in which it works, is a thimble in the passage, an elastic ring, and an adjusting nut, by which the inner end of the thimble is pressed watertight on the bar.

Improved Steam Mining Pump.

Andrew N. Rogers, Central City, Col. Ter.—This invention consists of a reciprocating steam cylinder with a stationary piston and a continuous acting force pump in a light strong frame, having apparatus by which it can be conveniently supplied by ropes and pulleys, so as to be conveniently adjusted as the work progresses. The steam is conducted down to the engine by pipes, and the water is forced up by other pipes, of which sections will be added on as the engine descends. The invention also consists of certain improvements in the construction of the engine and the pump to adapt it for the use for which it is intended.

Improved Plow.

John M. Tingley, Clifton Hill, Mo.—This is an improved short beam plow so constructed that the beam may be adjusted to cause the plow to run deeper or shallower, and to take or leave land, without removing a bolt, and which will enable the beam to be easily detached without removing a bolt. The invention relates specifically to the combination, with the standard and beam, of devices for adjusting the beam.

Improved Hose Patch.

Oscar E. Phillips, Richmond, Va.—The object of this invention is to provide ready and convenient means for repairing hose or pipes employed for conducting water or other liquid, when from over pressure or other cause they have burst or holes have been made therein; and it consists in a metallic patch composed of an inner and an outer plate, between which the hose is clamped by means of one or more screws.

Improved Screw Forming Machine.

Peter H. Howell, Black River Falls, Wis.—This is a guide attachment for swaging machines by which stove and other pipes may be produced with screw threads, so that they may be readily put together and disconnected and the slipping of the same or escape of ashes or sparks be effectually prevented. The device consists of two main standards which carry a vertically and laterally adjustable arm with two wheels, on which the stove or other pipe is placed and fed, under suitable inclination, to the swaging machine.

Improved Violin Bow Rosin.

Thomas H. Hathaway, New Bedford, Mass.—This is a pocket case for the rosin, which may also be employed for a handle while applying the rosin to the bow hair; and it consists of a little paper or leather case of approximately elliptical form in cross section, open at both ends to allow the bow to be drawn forward and back through it, and provided with end flaps which close the ends and fasten together along one side. In this a piece of rosin is secured, about half filling it and extending from end to end, so as to be rubbed along the string without having to touch the rosin by the hand.

Improved Hay Loader.

Carmi O. Benton, Topeka, Kan.—The axle is bent at right angles near each end, to bring its middle part sufficiently near the ground. To the bends are attached bars, the forward parts of which meet and have an eye to hook upon the middle part of the axle. The bars project to the rearward, and rakes are pivoted to them. When passing from place to place, by unhooking the chain, the rake may be turned up to rest upon the elevator frame. The latter may be adjusted closer to or further from the ground, as may be required. To an endless apron, at suitable distances apart, are attached cross bars, which are provided with prongs, by which the hay collected by the rake teeth is taken from said teeth, carried up the frame, and deposited upon the wagon. The elevator is operated by the advance of the machine.

Improved Cotton Scraper and Thinner.

Charles T. Dollahan, Pittman, Ark.—This invention consists of a master wheel, the axle of which is mounted on the left hand side of the beam, from which a bar extends to the rear end and supports a number of cultivators for cultivating the right hand side of the row, while the wheel runs along the left hand side, and is followed by a scraper on that side. A shaft geared with the master wheel extends across to the left hand side, and has a crank at that end connected with a horizontal elbow lever, which works a chopper, and causes it to chop out portions of the row at certain distances apart. The elbow lever is connected with the crank by contrivances arranged so that it can be thrown out of gear and remain inoperative while the machine is running along one side of the row, as it is only necessary for it to work during one passage of the scrapers, while they are required to run twice along the row, once on each side. Thus the machine scrapes off on one side, cultivates on the other, and chops out, all at the same time, and by running both up and down the row scrapes off and cultivates both sides.

Improved Ice Pitcher.

Joseph B. Cox, Mount Laurel, N. J.—This invention consists in providing a cup on the front side of the pitcher for containing sponges, and a gutter which communicates with it. The water accumulating in the gutter will be taken up by the sponge, so that it cannot be spilled in handling the pitcher, as it would be liable to be if allowed to remain in the gutter.

Improved Vapor Bath.

Volney Miller and Horace Cole, Andover, Mo.—There is a small case for confining the vapor, which incloses the whole of the body except the head. There is a vertically adjustable seat under which is a vapor-distributing pan, under which the alcohol lamp is burned. Suitable dampers are provided to regulate the entrance and escape of the vapor.

Improved Die for Welding Links.

John B. Baugh, Detroit, Mich.—This invention consists of a bed die and of two wedge-shaped link dies, which latter work in the bed die and are raised therefrom by a lever which throws up wedges and allows the link to be removed. The face of the steam hammer which strikes the link in the operation of welding has an orifice which receives the top part of the link and thereby keeps the link in place when the welding blow is struck. By this apparatus the operation of welding links for car couplings and for other purposes is greatly facilitated.

Improved Milk Safe.

Hiram Babcock, Applington, Iowa.—This invention consists of a safe provided with hollow sliding shelves, which are closed at the sides, but open at the ends, where they connect, by slotted apertures, with air chambers at both sides of the shelves, through which a current of air is kept up by regulating draft holes and a pipe connection with chimney.

Improved Medical Compounds.

Robert R. Roberts, Bonham, Texas.—The first compound is prepared for use in the form of pills, of about the weight of three grains each, and consists of podophyllin, leptandrin, extract of butternut bark, extract of rhubarb, extract of jalap, powdered capsicum, sulphate of quinine, and salicine. These pills operate as a tonic as well as a cathartic, and are successfully employed in the treatment of a great variety of diseases. The second compound is also in pill form, and consists of podophyllin, leptandrin, extract of rhubarb, extract of jalap, extract of butternut bark, making a three-grain cathartic pill. These pills are employed for the cure of various diseases, more especially those which affect the bowels and digestive organs.

Improved Clothes Pounder.

David Graffin, Catawauqua, Pa.—This machine for washing clothes may be used with an ordinary wash tub. The invention consists in a disk made concave upon its lower side, and convex upon its upper side, to which is attached a standard and cross handle. Under the disk is secured a semi-spherical knob, and at equal distances from each other are attached four radial semi-cylindrical blocks, the ends of which are rounded off. Midway between each two blocks are attached radial blocks, which are grooved transversely, and the space between each two grooves is rounded off into semi-spherical form. In the spaces between the latter blocks are attached short radial blocks, the ends of which are rounded off, and in which are formed two or more transverse rounded grooves. The concavity draws the clothes in beneath it, so that they will receive the full force of the blows. As the device is raised, its concavity tends to draw the clothes up with it, which loosens the clothes and causes them to move, so that they may become more quickly saturated with water.

Improved Lamp Trimmer and Extinguisher.

William Walton, Williamsburgh, N. Y.—This is an attachment for lamp burners, so constructed that it may be used for trimming the wick and extinguishing the flame, and which shall be simple in construction, convenient in use, and effective in operation. There is a flat wick tube, around which is fitted a sleeve, from which, upon the opposite sides of the wick tube, project two jaws, the upper ends of which are inclined inward, so as, when the sleeve is pushed up, to meet above the top of the tube and pinch off the wick. Suitable devices prevent the jaws from pressing against the wick before they have risen to the proper height above the tube. When the jaws come together, they may form a close cap over the top of the wick tube, and thus extinguish the wick.

Improved Watch Case Spring.

Levi Stone, Mount Vernon, Ohio.—This invention relates to wire springs for watches, and consists in providing one end with a fastening brace, whereby the same spring may be adapted to any case by cutting off a little, more or less, from the end of the brace.

Improved Pump.

George W. Robaugh, Lee Summit, Mo.—This pump consists of a central tube, which guides a piston in the usual manner, surrounded by an outer tube of larger diameter, forming a chamber around the inner tube, and discharging the water from a pipe extending upward from the base of the outer tube. The outer tube has an extension of smaller diameter, in which a second piston with a central valve is guided, it being attached to the extension of the upper piston rod. The lower part of the extension tube connects by a common conical valve in the usual manner with the well tube. The water is raised by the up stroke of the lower piston through the bottom valve into the lower part of the main tube, passing on the down stroke through the valve of the lower piston into the upper part of the main tube, until the same is nearly filled. Each up and down stroke forces then, by the joint action of the pistons and the pressure caused thereby, the water through the discharge pipe, so that a regular and continuous stream of water issues therefrom.

Improved Grinding Wheel.

John T. Henry, Hampden, assignor to himself and Joseph Munger, Waterbury, Conn.—To form a secure and durable attachment of a stone or wheel to its arbor, the same is cut thicker at the center, or around the central opening, and provided with circular shoulders to engage with corresponding shoulders on clamps. One clamp bears against a collar, while the other is forced up and tightly clamps the wheel by a nut.

Improved Portable Fence.

James L. Griffin, Cussetta, Tex.—This improvement in fences consists of half dovetail projections on the ends of the panels, by which the meeting ends of the panel are locked together within a long yoke extending from bottom to top of the panels, and are fastened with a key. The panels are mounted on stakes or blocks, and supported by braces. The object is to furnish a light and cheap fence, which can be manufactured at the mill, and carried into the field ready to put up, and which can be readily taken down and moved about as wanted.

Improved Press.

John Gramelapacher, Jasper, Iowa.—This invention consists of a brake lever pivoted at the middle in the top of the follower stem, and having a fulcrum on each side of it on a rod working up and down through a guiding and supporting beam. The rod also works through a gripping pawl, which allows it to descend freely, but grips and holds it against rising, so that the fulcrum of one side descends while the other is holding the lever for pressing the follower down. This causes the follower to be forced down quickly by the vibrations of the levers.

Improved Stove Pipe.

David Boyd, New York city.—An annular flue is left between outer and inner pipes for the passage of the smoke and heated gaseous products of combustion. By this means, instead of a central column of ascending heat, the heated gases are spread out into a thin layer, and are compelled to part with their heat before being discharged.

Improved Furnace Attachment for Steam Boilers.

Thomas Hall, Lawrence, Mass.—This invention consists of a frame, which is placed on the rear ends of the grate bars at the fire bridge, being open at the bottom, with forward projecting top piece and connecting sides, to which a front plate is attached. This plate extends laterally across the casing, and is inclined diagonally toward the top corner of the same, and is there provided with recesses, through which a current or sheet of air is connected and thrown forward to mingle with the fire gases for their more complete combustion.

Improved Dough Kneader and Cutter.

Frank Mückll, Galveston, Tex.—This invention is an improved instrument for rapidly and thoroughly kneading dough, and for scraping, rolling and cutting the same, and consists of a main part of U shape, with curved lower part and ends, which main part is used for kneading the dough, while a knife at the upper end serves for scraping and cutting. There is a roller at the lower end for rolling the dough, and suitable cutters applied at the sides for stamping out cakes. A handle at the inside of the lower end serves, in connection with the upper curved end, for the convenient handling of the instrument during kneading.

Improved Window Screen.

George F. Sarles, Bedford Station, N. Y.—This invention consists of an arrangement of the sash in the window, so that the net can be used at the top or bottom of the window, and shifted from one to the other without interfering with the sash.

Improved Plumber's Joint.

Isaac F. Van Duzer, Middletown, N. Y.—A T coupler, of lead, joins a branch to the side of a pipe. It has a groove along the top to receive the side of the pipe in it, and a hole through the center, at right angles to the groove, for the pipe. The couplers are made of lead, so as to slip on the pipes easily to form the basis of the joint. They are fastened by solder, overlapping them at the edges, and flowing in between the parts at the joints, and into the holes, if necessary.

Improved Planter.

Charles D. Wilson, Kentland, Ind.—This invention is an improvement in a well known class of seed planters, and relates chiefly to the arrangement of a toothed disk or wheel in the hopper, above the apertured seed dropping wheel, and on the same shaft therewith. The face of the toothed wheel has projections or teeth attached to it, which are struck by the projections attached to the seed wheel, so that the seed may be dropped by the advance of the machine.

Improved Sagger.

Benjamin Jackson, Geddes, N. Y.—This invention relates to improvements in saggars employed in the process of backing or burning crockery ware, for the purpose of protecting the ware from the direct action of the fire and the injurious products of combustion. The invention consists in constructing a sagger with a series of internal vertical ribs or bars permanently attached to the walls of the same, and provided with notches. The latter are adapted for the reception of detachable pins, designed to support the ware to be burned.

Improved Nail Plate Feeder.

William H. Field, Taunton, Mass.—For the purpose of inserting the nail plate into the nippers, at the front end of the nipper rod, the attendant works a treadle, releasing a spring clutch and throwing the main shaft out of gear. Then the nipper rod is simultaneously carried back by its handle. The action of a wedge piece on the nippers causes their opening, and allows the ready insertion of a new nail plate in place of the one fed to the cutters. The V-shaped form of collar admits of the opening of the nippers whether the bar levers are in the upper or lower position, so that no time is lost in adjusting them. The treadle is then released, the spring clutch engages instantly the main shaft, and the weight carries the nipper rod and nail plate forward, and feeds the latter to the cutter knives. The intermittent rotary motion of the nail plate, required for giving the same a semicircular turn for the regular cutting of the tapering nails in alternate direction, is obtained by suitable mechanism.

Improved Water Wheel.

Nelson Conner, Jalapa, Ind.—This invention consists of a double wheel, comprising a horizontal wheel, receiving the water at the periphery and discharging it at the center for the upper portion. Another wheel below receives the water at its center from the upper wheel and discharges it at the periphery. The two wheels are contained between top and bottom horizontal disks, and separated, the one from the other, by a flat annular rim a little wider than the depth of the buckets. It is fitted at the outer edge with the bottom plate of the scroll case, to form a joint to confine the water to the upper wheel as it enters from the chutes. The buckets of the lower wheel are arranged to discharge the water in the contrary direction to that in which it is received on the upper buckets, and in a manner to receive the reactionary force, while the upper ones receive its direct action.

Improved Fence Rail Holder.

John W. Graham, Prairie Depot, O.—This invention relates to means whereby the rails or longitudinal boards, which are usually affixed by nails or other fastenings to fence posts, may be spaced at exactly the intervals desired and in a corresponding manner on all the panels. The invention consists in a rail gage constructed and put together in a novel and peculiar manner.

Improved Railroad Car Brake.

William L. Belt, Little Rock, Ark.—This invention relates to means for operating the brakes of a train of cars from the engine, and consists in combining, with the ordinary vibratory brake lever, a grapple and three rods arranged in a novel and peculiar manner, whereby the brakes are brought into operation the moment the power is applied, without waiting for the cars of the whole train or any two of them to come together.

Improved Lifting Jack.

Maxwell B. Henry, East St. Louis, Ill.—The lifting bar has ratchet teeth on opposite sides, and is worked up and down in a vertical stand or frame by means of a lever, to each arm of which are applied a sliding rod and a pivoted pawl. The rods are flattened and bent near the inner end to form springs, which enable the pawls to yield and slide over the ratchet teeth. The rods can also be used to hold the pawls out of engagement with the ratchet bar when the latter is to be lowered.

Improved Commercial Register.

Caleb D. Weeks, New York city.—This invention consists in a commercial register consisting essentially of a series of supply chambers, each having a spiral channel way extending from top to bottom thereof, a series of oppositely perforated and guide tubes, slide tubes, a receiving chamber, a conducting tube, a tilting bottom, cords, and lock box, all combined in a novel and peculiar manner, to serve as a check upon clerks or employees in stores or other places of business.

Inventions Patented in England by Americans.

- (Compiled from the Commissioners of Patents' Journal.)  
From April 24 to May 6, 1874, inclusive.
- AGRICULTURAL IMPLEMENT.—A. McMartin, New York city.
  - AIR ENGINE.—W. Manson, San Francisco, Cal.
  - ALKALI PACKAGE.—B. T. Babbitt, New York city.
  - ANCHOR.—J. T. Fewkes, Philadelphia, Pa.
  - BRAKE AND SIGNAL.—G. Westinghouse, Jr. (of Pittsburgh, Pa.), London, Eng.
  - BURNISHING PHOTOGRAPHS.—J. P. Bass, Bangor, Me.
  - COMBINATION LOCK.—W. F. Rutter, Philadelphia, Pa.
  - CUTTING TEETH ON WHEELS, ETC.—J. A. Peer, San Francisco, Cal.
  - EXTENSION TABLE.—F. Osgood, Boston, Mass.
  - EYELET.—J. P. Pultz, Plantsville, Conn.
  - IGNITION FUSE.—W. A. Leouard, Boston, Mass.
  - INHALER.—E. R. Gardner, New Bedford, Mass.
  - LABEL.—H. Van Geasen, New York city.
  - LOOM.—W. Nuttall et al., Westerly, R. I.
  - METALLIC CARTRIDGE.—H. Berdan, New York city.
  - MOLDING CONCRETE PIPES.—J. W. Stockwell, Portland, Me.
  - PETROLEUM FURNACE.—L. C. d'Homergue, Brooklyn, N. Y.
  - SEPARATING FLOUR, ETC.—J. T. McNally, Brooklyn, N. Y.
  - SEWING MACHINE.—G. H. Bishop, New York city, et al.
  - SHOT CARTRIDGE.—A. B. Kay et al., Newark, N. J.
  - SIRUP JUG.—G. M. Irwin, Pittsburgh, Pa.
  - SPADE BAYONET, ETC.—F. Chillingworth, Springfield, Mass.
  - SPARK ARRESTER.—H. G. Holmes, New York city.
  - SQUIB, ETC.—S. H. Daddow, St. Clair, Pa.
  - TRANSMITTING MOTION.—O. M. Chamberlain et al., New York city.

NEW BOOKS AND PUBLICATIONS.

- COMPOUND ENGINES. Translated from the French of A. Mallet. No. 10 of Science Series. 50 cents. New York: D. Van Nostrand, 23 Murray and 27 Warren streets.
- REPORT ON THE DETERMINATION OF THE ASTRONOMICAL COORDINATES OF CHEYENNE AND COLORADO SPRINGS, MADE DURING THE YEARS 1872 AND 1873, BY FIRST LIEUTENANT GEORGE M. WHEELER, DR. F. KAMPF, AND J. H. CLARK, CIVILIAN ASTRONOMICAL ASSISTANTS. Washington: Government Printing Office.
- Lieutenant Wheeler characterizes this elaborate volume as a step in the direction of uniformity of plan in the prosecution of astronomical work in the western interior; and for this reason, and on account of the value of the observations and calculations, we are pleased to know that it is to be distributed among the officers engaged in making explorations.