

## Inventions Patented in England by Americans.

June 22 to July 6, 1877, inclusive.

ARCHITECTURAL COLUMNS.—W. H. Drake *et al.*, Chicago, Ill.  
 BARRELS, ETC.—G. W. Zaraway, Hartford, Conn.  
 BOOT CRIMPER.—J. Smith *et al.*, Boston, Mass.  
 BOTTLE STOPPERS.—N. Thompson (of Brooklyn, N. Y.), London, England.  
 BOX DRAWERS.—C. C. Chamberlain, New York city.  
 BRUSHES AND CURRYCOMBS.—C. E. Holmes *et al.*, New York city.  
 CAKE MACHINERY.—D. J. Holmes (of New York city), London, England.  
 ENGRAVING MACHINERY.—H. K. Floger, Boston, Mass.  
 FIRE ARMS.—H. C. Bull *et al.*, New York city.  
 FIRE ARMS.—D. C. Holloway, Washington, D. C.  
 FURNACE.—J. J. Stores (of New York city), London, England.  
 HARVESTERS.—D. M. Osborn, Auburn, N. Y.  
 HARVESTERS.—W. A. Wood, Hoosic Falls, N. Y.  
 LAMP SHADES.—J. J. West, Chicago, Ill.  
 LETTER FILES.—B. Brower *et al.*, Irvington, N. Y.  
 MATCH.—W. H. Bracy, Boston, Mass.  
 MATCH SPLINTS.—E. B. Beecher, Westville, Conn.  
 METALLIC CAMS.—A. S. Lyman, New York city.  
 PENCILS.—R. Duncan, New York city.  
 PRINTING.—H. D. Dupel, Boston, Mass.  
 PROPELLING STREET CARS.—J. Amboderg, Richmond, Va.  
 PUMPS.—J. Robertson, New York city.  
 RAILWAY RAILS.—J. E. Atwood, Stonington, Conn.  
 RAILROAD BRAKE.—H. J. Hadan, Mt Stevens, New York city.  
 STEAM CARS, ETC.—L. Ransom, Stratford, N. Y.  
 TELEGRAPH APPARATUS.—E. Gray, Chicago, Ill.

## Recent American and Foreign Patents.

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## NEW MISCELLANEOUS INVENTIONS.

## IMPROVED CARBURETER.

Oliver P. Drake, Boston, Mass.—The object of this invention is to produce a more equal and reliable density of rich illuminating gas when manufactured by the admixture of common atmospheric air and the vapor of hydrocarbons. The invention consists in an improved construction of valve case and valve, and in the arrangement of the valve directly above the float in the partition separating the reservoir and carbureting chamber; also in a device located in the reservoir and resting on its bottom partition, for separating any excess of hydrocarbon vapor from the air passing through the carbureter; also in arranging two or more carbureting chambers, one above the other, in the same case in such a manner that each chamber shall be automatically supplied by means of a float and feed valve.

## IMPROVED ICE CREAM FREEZER.

Oliver Dexter, Jr., Troy, N. Y.—This invention consists in means which will forcibly inject currents of air into the freezing can during the process of agitating the contents thereof by dasher blades.

## IMPROVED SHOW CASE.

William Shockley, Allerton, Iowa.—This is a case or box for storing screws, screw eyes, or other articles of hardware, of different sizes, for the purpose of preventing any intermixing of different sizes of screws, which forms a source of annoyance in the present open boxes. The invention consists of a case having a number of boxes for the different sizes of screws, each box, except one, being covered by a separate sliding lid, that is guided by side grooves along T rails of one set of partitions. The T rails extend over the greater part of the partitions, with the exception of one end tier of boxes, along which the lids slide laterally, so as to remove the lid from any one of the boxes by sliding first the lateral lids, and then those at right angles to the open box.

## IMPROVED POCKETBOOK.

Daniel M. Read, New York, N. Y.—In the construction of this pocketbook the coins are put one at a time upon disks until as many as desired have been put in, or until spring nuts with which it is provided have been fully compressed. The coins are slipped out one at a time, as they are required for use. To the lower part of the case is attached a cover of leather or other material, which is provided with pockets in the manner of an ordinary pocketbook. The cover folds together around the case, and its overlapped ends are secured by a fastener.

## IMPROVED BUNG EXTRACTOR.

William J. Wademan, Bay City, Mich.—This invention consists in an extracting rod having a flat arrow-head formed on one end for penetrating and giving a hold on a bung, in combination with a tubular hammer stock for driving the arrow-head of the extractor through a bung. When the head has passed through the bung, it is turned one quarter round, taking a firm hold and allowing the bung to be extracted.

## IMPROVED STABLE SCUTTLE AND TRAP.

William M. Watkins, Worcester, Mass.—The scuttle lid rests on sides and ends, so that the whole forms a box. Hinged to the side is the bottom or trapdoor, having the catch that receives a pivoted and right-angled latch. To the latch is pivoted the lower end of a rod, which passes through keepers attached to the side and is used to trip the latch, which is held forward to engage with a catch when the trapdoor is raised into place. A spring is attached to the side and bears against the latch, which is covered by a dust case. The trapdoor is raised by a cord passing over the pulleys pivoted to the forward corners of the free edge of the trapdoor, a lever cam being employed to hold the free end of cord detachably.

## IMPROVED TOY BOOTBLACK.

Adolph Gartner, New York city, assignor to himself and Louis Gompper, of same place.—This invention is a toy in which figures perform certain movements by the action of a clock train. The figures are worked by the train, so that the arm of one is operated by a horizontally reciprocating slide piece, and the head of the other by a vertically reciprocating slide piece, forming contact with the pivoted and spring-acted portion of the figure.

## IMPROVED SELF-RAISING LARD.

Thomas H. Rosser, Selma, Ala.—This invention relates to an improved compound used for culinary purposes; and it consists in a composition formed by mixing lard, tartaric acid, bicarbonate of soda, alum, and starch.

## IMPROVED VENTILATING BUNG.

Simon H. Lesser, New York city.—This invention consists of a hinged and spring-acted bung that is fitted tightly into a seat of the cask and locked by a spring catch or bolt, the bung being provided with a ventilating device for admitting or shutting off the air. It is intended to furnish a bung for the water casks of sea-going vessels, for beer kegs, and other purposes, by which a hermetical sealing of the bung-hole is obtained, and air admitted for giving vent at any moment without opening the bung-hole.

## IMPROVED PROCESS FOR ORNAMENTING GLASS.

Chas. J. Cartisser, New York city.—This invention consists mainly in dispensing with the frosting of the glass by mechanical means, as emery, sand, etc., and producing, first, a prepared surface or ground in clear or whitish color by etching the surface with hydrofluoric acid alone, or by a mixture of carbonate of ammonia and hydrofluoric acid, and laying then on this ground any desired ornamentation by means of a varnished transfer pattern or sheet of lace, or other perforated or cut material, and finally etching this and larger ornaments by one or more baths of carbonate of ammonia and hydrofluoric acid.

## IMPROVED CLASP FOR HOLDING NECKTIES.

Alvin H. Dodd, New York city.—This necktie or bow fastener consists of a spring clasp formed from a single piece of wire, bent into loop shape, to receive an attaching plate, having an eye for the reception of the collar button, and provided with outwardly branching ends, to facilitate the entrance and removal of said button.

## IMPROVED SADIROH HEATER.

William H. Haylock, Jonesville, New York city.—This invention relates to improvement in sad iron heaters, so that the same may be used at will for heating sadirons, a tailor's goose, or for boiling starch in a convenient manner; and the invention consists of a sad iron heater having a chimney of inverted conical shape, supporting on an angular seat a top for sadirons, or a box top, or a flat pan top, the escape of heat being arranged at the seat and the top parts.

## IMPROVED BRUSH.

John Waddell, Elora, Ontario, Canada.—In this invention the brush handle is connected by means of bevel dovetail tenons at the ends of the handle to the brush head, said tenons running in one direction, so as to enter simultaneously corresponding mortises of the bevel dovetail shape of the brush head, into which the tenons are secured by glue.

## IMPROVED TOBACCO PIPE.

Samuel H. Thurston, Whitestone, N. Y.—This invention relates to improvements in pipes for smoking tobacco; and it consists in making the entire pipe or portions thereof, or a cigar holder or portions thereof, of pumicestone.

## IMPROVED LABELS FOR PLUG TOBACCO AND CIGARS.

George W. Yerby, New York city.—In this invention a plug of tobacco has a portion of a leaf of tobacco, of lighter color than the plug, in which apertures, having the form of letters or characters, are cut, which, when the label is attached to the plug, permit the darker covering of the plug to show, thus making the letters or characters prominent and easily distinguished. Where the label is applied to a light-colored plug it is made from a dark leaf.

## NEW HOUSEHOLD INVENTIONS.

## IMPROVED VENTILATOR.

Thomas M. Foster, of Union City, Penn.—This invention consists of a number of apertures arranged in the wall and opened or closed by single and double covers, that fit snugly over the apertures, and are operated by a pivoted lever and cords and pulleys. The apertures are provided with thimbles and other weather caps.

## IMPROVED SASH BALANCE.

William Cashner, Pleasant Hill, Mo.—This invention consists of the sashes of a window hung by cords to double spring pulleys, turning in opposite directions, and being retained in any position by sliding spring bolts and pins acting on recesses of the sashes. It dispenses with boxes, weights, cords, and pulleys, and is easily adjusted for the weight of the sash.

## IMPROVED WINDOW BRACKET.

John F. Zimmerman, Crestline, O.—This invention is designed to furnish a shelf for attachment to window frames to receive flower pots, and is supported by means of arms or bars, which are so connected with it as to admit of adjustment according to the width of different window casings.

## IMPROVED BROOM.

James Roney, Scotland, Mo., and Thomas Roney, Hyde Park, Ill.—This invention consists in the combination of a seamless stock, ribbed upon its inner surface, and provided with a screw collar and movable clamps ribbed upon their outer surfaces, and a handle made with a conical forward end, having a screw thread formed upon it. When the handle is screwed down it enters between plates and presses them apart, clamping the filling between their ribbed outer surfaces and the ribbed inner surface of the stock, holding the filling securely.

## IMPROVED DEVICE FOR COATING CAKES WITH COCOANUT, ETC.

Daniel M. Holmes, New York city.—The object of this invention is to furnish an improved device for coating cakes made of soft dough, such as jumbles, etc., with grated cocoanut, sugar, currents, and other substances, which will enable all the cakes to be coated evenly, and will prevent any of the cakes from being flattened. The invention consists in the watertight box provided with a flexible waterproof sheet, a water pipe, and air passages, to adapt it to be used for coating soft cakes with cocoanut, sugar, etc.

## NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.

## IMPROVED AXLE BOX.

Isaac Newton Camp, Deerfield, Mich.—The axle is inclosed at the hub-section with a revolving box provided with outer spiral grooves or channels, and, if desired, an inner returning groove for oil. The groove or grooves are provided at suitable distances with perforations through which the oil passes to the axle to lubricate the bearing of box and axle.

## IMPROVED COMBINED CUT-OFF AND FILTER.

John Hoover, Crawfordsville, Ind.—This invention relates to a cut-off and filter combined, which may be used so as to conduct first the dirty water from the roof out through the waste pipe, and passing then the water through the filtering chamber, in which the filtering material can be readily replaced, as required. The invention consists of a cut-off combined with a filtering device, the partition between the cut-off having vent holes to pass any surplus water.

## NEW AGRICULTURAL INVENTIONS.

## IMPROVED CORN PLANTER.

Charles McGee, Elwood, Kan.—This improvement is in that class of cultivators which are constructed in duplicate form with shovels upon separate beams arranged to cultivate upon both sides of a row at once, which beams are connected by a loosely jointed elevated coupling high enough to permit one set of shovels to be advanced or retracted independently of the others. The improvement consists in arranging upon each beam a nicked shovel combined with centrally arranged cutting blade, which arrangement more perfectly cuts the grass and clears the shovel.

## IMPROVED ROCKING DEVICE FOR HARVESTERS.

Edward Cheney, Geneva Lake, Wis.—This invention relates to means for tilting the cutting apparatus of reaping and mowing machines; and

consists in combining, with the drawbar and slotted shoe of the finger bar, an adjustable cam or slotted wedge and a hand lever, whereby the attendant can tilt the cutting apparatus, and give it any desired angle of inclination.

## NEW MECHANICAL AND ENGINEERING INVENTIONS.

## IMPROVED SPIRAL CAR SPRING.

James Ludlum, Pompton, N. J.—This invention is a spiral spring made from a metallic bar, whose cross section in its exterior surface is convex, and the two interior ones more or less concave, while the upper and lower edges of each spiral are rounded off. The spring thus formed is capable of resisting a great amount of pressure, while it is also capable of yielding laterally, and as the coils overlap each other they are mutually supported.

## IMPROVED FEED REGULATOR FOR MILLSTONES.

James W. Moir and James H. Ellis, Halifax, Nova Scotia.—This invention consists in the combination of a valve connected with the end of the grain conduit, a spring for holding the valve open, and a hopper that is suspended from the valve, through which the grain passes to the hopper of the millstone. The grain, by weighing down the hopper, moves the valve so as to control the amount of grain passing through it.

## IMPROVED SPINDLE FOR LOOM SHUTTLE.

James Hamilton, Salmon Falls, N. H.—This invention consists in a spindle which is made of two parts, and applied in the shuttle by means of independent pivots, arranged in such manner that when these parts are raised to introduce the cop they will be contracted, and when they are adjusted in position for weaving they will expand and firmly hold the cop.

## IMPROVED ROAD SCRAPER.

Abira Thompson, Harmony, Ill.—This invention consists in the combination of bar, perforated plates, and draft bars, with scrapers and running gearing of a wagon; and in the combination of loops or keepers, chains, levers, crossbar, and the standards, provided with hooks, with scrapers, and with bars, attached to the running gearing of a wagon. It is so constructed that it may be attached to an ordinary wagon, which will work upon even or uneven ground, and can be adjusted to scrape wide or narrow, light or heavy, light upon one side and heavy upon the other, and light or heavy upon the inside, and heavy or light upon the outside.

## IMPROVED ROPE OR LINE CARRYING PROJECTILE.

Thomas C. Backus, Brooklyn, N. Y.—The object of this invention is to furnish, for the purpose of establishing connection with the upper stories of burning buildings, an improved line or rope projectile or conveying device, that is shot, in the nature of the line-carrying balls or rockets in coast wrecking apparatus, from a gun or other implement, to carry a line to the endangered persons, and admit the hoisting of a hose, rope ladder, or other fire-escape. The device may also be employed as a safety device on board of vessels to convey the line ashore.

## IMPROVED WINDMILL.

William G. Alexander, Winnemucca, Nev.—This invention consists in a windwheel in which the fans are divided longitudinally into two equal parts or sections, hinged to each other at their adjacent edges, and having one section rigidly attached to the arms of a wheel; in the combination of spiral springs with the hinged parts or sections of the fans; and in the combination of rods, a small sliding wheel, a sliding rod, and a cord with the hinged sections of the fans, and with a wheel shaft and turn table.

## IMPROVED SAW GUIDE.

William Collins, Perham, Minn.—This saw guide is extended to the end of its frame, and is provided with a screw at the long end of a lever, whereby the sawyer need not let go his feed lever, and may adjust with more facility.

## IMPROVED CAR MOVER.

Daniel Pierce, Brownington, Vt.—This invention is a device for moving freight and street cars on railroad tracks, and may be also used for hoisting and other purposes. It consists of two cogwheels, arranged in fixed position, but with teeth at opposite direction to each other, on the car axle or shaft, the cogwheels having circumferentially grooved side disks for a detachable yoke frame carrying lever sockets and pawl. The cogwheels are intended to be attached to the axles of each car, forming a stationary fixture of the same.

## IMPROVED SCROLL SAWING MACHINE.

Franz Eisenick, New York city.—This invention consists of a lateral saw frame that is guided on top and bottom rails, and made adjustable to different lengths of stroke by a radially slotted and adjustably weighted crank disk. The upper saw clamp is raised or lowered by a screwrod and set nut for the length of the saw, and the tension adjusted by a sliding wedge key. A pan below the saw serves as receiver for the sawdust.

## IMPROVED MACHINE FOR MAKING PICKER TEETH.

Robert Aldrich, Millville, Mass.—This invention produces shoddy picker teeth from metal rods by a process of swaging; and the nature of the invention consists in rotating swaging dies adapted to give the desired shape to the picker teeth in combination with a punch which is applied to a horizontal reciprocating stock.

## IMPROVED RAILROAD GATE.

Elias W. Moyer, Bernville, Pa.—This invention is to furnish railroad gates which shall be so constructed that they will be opened by the wheels of the approaching train, and will close automatically as soon as the train has passed. The gate is formed by attaching parallel bars to a shaft, which rocks in bearings in bars attached to the ties. The wheel of the advancing car strikes either end of a spring, and the effect is to push the spring and bar before it, bringing the levers and gate into an inclined position, so that as the wheels advance upon the spring and bar they force them downward, bringing the levers and gate into a horizontal position. As the wheels pass off the spring and bar, other springs draw the levers into a vertical position, raising the gates.

## IMPROVED SPINDLE.

Gilbert P. Whitman, Rockport, Mass.—This spindle is intended to steady the bobbin without driving the same, so that high speed without vibration is obtained. The invention consists of a fixed standard supporting a small spindle loosely at the top, revolved by a combined cup, whir, and sleeve, and lubricated by an oil cup at the base of the post, provided with a dished cap or drip cup. A bulging collar is fastened to the post above the whir to prevent raising of oil, facilitating seating of bobbin, and prevent whir from rising.

## IMPROVED RAILWAY AXLE BOX LID.

Francis C. L. G. Susemihl and Herbert H. Hewitt, Detroit, Mich.—This invention relates to the covers of journal oil boxes for railway cars; and it consists in a cover or lid having projections formed on its edges that are received by grooves formed in flanges that project from the sides of oil box. The cover cannot be lost, as it can only be removed from the box by removing the box from the truck; and it cannot easily be broken or disarranged.

## IMPROVED COMPOUND STEAM BOILER.

Robert R. Hine, Kohala, Hawaii, Hawaiian Islands.—This invention is a compound boiler, designed to use cane trash or other light fuel. It consists in the combination of a single flue boiler and a many flue boiler, placed end to end, with a space between them, and connected together by a steam drum and circulating pipe, with each other and with the furnace and chimney.