Inventions Patented in England by Americans.

[Compiled from the Commissioners of Patents' Journal.]
From August 2, to August 14, 1873, inclusive.

ANCHOR.—C. A. Chamberlin, Pittsburgh, Pa.
ARTICLE OF DRESS.—E. La P. Daniels (of New York city), London, Eng.
BALE TIE.—E. P. Jones (of Shell Mound, Miss.), London, England.
BOOT STRETCHER.—D. Harris, St. Louis, Mo.
CAR PLATFORM.—E. Miller, New York city.
DOVETAIL JOINT.—T. Hall, Northampton, Mass.
ELECTROMAGNETIC ENGINE.—C. Gaume, New York city.
FURNITURE CASTER.—J. B. Sargent, New Haven, Conn.
JOURNAL BEARING.—J. Eccles, Philadelphia, Pa., *et al.*
MATTRESS AND LIFE PRESERVER.—J. F. Peck, Springfield, Mass.
PILE DRIVER.—P. S. Justice, Philadelphia, Pa.
PROPELLER.—N. A. Patterson, Cleveland, Tenn.
RAILROAD RAIL.—J. B. Johnston, New York city
RAILWAY SIGNAL.—F. L. Pope, Elizabeth, N. J.
SEWING MACHINE.—D. Shedd, New York city.
STEAM PUMP.—D. Douds *et al.*, New Castle, Pa.
THEATER SEAT.—P. W. Nolan, New York city.
TOY.—A. H. Cramp, New York city.
WOOD PAVEMENT.—B. B. Hotchkiss, New York city.

Recent American and Foreign Patents.

Improved Pen Holder.

John S. Orndorff, Virginia City, Nev.—The object of this invention is to furnish an improved pen holder, which softens the scratches and jars of steel pens, producing an easy hold without cramping or tiring the fingers. The invention consists in attaching a hollow elastic sleeve to the stem of a pen holder, so as to confine a quantity of air and form a cushion.

Improved Farm Fence.

Winfield S. McKenzie, Rockwall, Texas.—This invention consists in the posts and pivoted or tilting bars for supporting a fence formed of wires or other material; in the combination of the loops and bars with the bars or posts that support the fence; and in the portable brace for strengthening an inclined fence against pressure. By this construction the weight of the panels forces the bars downward upon the loops, clasping the panels firmly between the bars with a greater or less force, according to the weight of said panels. The bars and loops may be used for connecting the panels to vertical posts, if desired.

Improved Rotary Engine.

George W. Cummings, Conneaut, O., assignor of one half his right to Daniel W. Hazeltine, of same place.—The object of this invention is improvement in the class of rotary engines and pumps having a piston box placed eccentrically within the steam cylinder and controlling the piston arms. The piston arms are arranged concentrically with the steam cylinder and tightly fitted to it by means of springs and packing.

Improved Signs.

William B. Lambert, Geneseo, Ill.—This invention consists in applying, to the backs of detachable letters, pivoted spring jaws or arms, which are adapted to be sprung under or into notches in a rod supporting the letters, said springs serving, in connection with hooked plates or clips attached to the letters and fitted on the rod, as a medium for firmly retaining the letters in position while not preventing their easy removal when desired.

Improvement in the Manufacture of Beer and Yeast.

Louis Pasteur, Paris, France.—The object of this invention is to eliminate and prevent the multiplication of microscopic organisms by the following means, namely: First, obtain pure yeast by separating the organic germs foreign to brewers' yeast; second, treating the wort while cooling from the time it leaves the copper, in which all the germs of disease are destroyed, until it reaches the vats, tuns, or fermenting apparatus, and even after fermentation in such manner that it shall not again receive, either by unlimited contact with the open air or with the vessels employed, any pernicious germs capable of multiplying and of subsequently changing the condition of the product; third, cooling in closed vessels in the presence of a limited supply of filtered air or carbonic acid gas.

Improved Dovetail Machine.

Alfred C. Van Alstine, New York city.—This invention consists in the improvement of tenoning and sash dovetailing machines. This machine is mainly arranged like an ordinary tenoning machine. Next to a tenoning head is a cope head; next to cope head is a dovetailer, which is set as close to cope head as it can be and run clear; it is mounted on a bar, which is pivoted to the machine in such a manner that it can be set perpendicularly, or inclined by swinging the bar on its pivot. Another dovetailer is set far enough to allow the check holder to tip over while passing between. The dovetailers are driven by belts from an upright shaft. There is also other improved mechanism of which a clear idea cannot be imparted without the aid of a drawing. To operate this machine for dovetailing sash stiles, the carriage is raised by means of inclines and screw, so that the sash stile, when laid on the carriage, will be above and clear of the head and cope; the upper head is then set so as to cut the stile to the required thickness; the dovetailer is then set so as to give the dovetail or diagonal cut, and another dovetailer is set so as to cut the last part of the dovetail mortise; then the stop is adjusted to give the depth of cut required; the stile is then put on the carriage against the gage bar, and passed through, and is finished at each end by one operation. The stiles for the bottom sash are run with the face of the stuff down, and the stiles for the upper sash are run with the face up. The inventor's address is 236 East 42d Street, and the machine may be seen in operation at 124th Street, East river, both in New York city.

Improved Ice Cream Freezer.

Antonio Lucetti, New York city.—To the tub of the freezer is connected the ice receptacle, which is made with a spout leading into the tub, through which the pieces of ice enter. The spout of the receptacle is provided with a gate to enable the outflow of ice to be regulated as required. A tube extending up allows the cold air from the ice to pass into the middle part of the receiver, so as to freeze the middle part of the cream as quickly as the outer parts. To bars crossing the open lower end of the tube and secured to the bottom of the receiver is attached a pivot, which works in a socket in the bottom of the tub. With the upper end of the tube is connected a vertical shaft which by suitable mechanism communicates with the crank for operating the machine. In using the freezer, the receiver is revolved by turning the crank with the right hand, and a spatula is controlled and guided with the left hand. The apparatus should be so arranged that the operator, while turning the crank with his right hand, can open the gate with his left hand to admit ice to the tub as required.

Improved Machine for Dressing Millstones.

Joel W. Parish, McFarland's, Va.—A small rectangular frame is arranged so that a platform, sliding forward and backward on a long frame, will carry the picks parallel with the furrows; that the shifting of the frames will adjust them from line to line for fine or coarse cracking; that by turning the pickstock the picks can be adjusted for cracking or furrowing; and that by shifting the socket piece on the pickstock the picks can be adjusted to the angle of the furrows, and by the fast and slow feeds the picks can be moved along the stone radially at the requisite speeds for the different kinds of work.

Improved Water Wheel.

Elyanus Hackett, Ulysses, Pa.—This invention relates to modes of utilizing the reactionary power of water, and consists in buckets having peculiarly shaped curves; in a novel mode of applying adjustable gates; and in combining with the ordinary wheel a subjacent second one which receives the reactionary impact of the water from the first and utilizes it in a very effective manner.

Improved Tilting Gate.

John Bartholf, Hillsborough, Wis.—This invention consists in the combination with double main posts of two folding half gates, which fold up into a vertical or inclined position, as may be required.

Improved Splice Joint for Railroad Rails.

William D. Lindsley, Wathena, Kan.—This invention consists in a fish plate having a solid flanged base that fits an excised part of the inside base flanges of rail, and rests, with an offset, upon a shoulder of the same to give strength to the rail ends and cause them to last as well as other parts of the rail, and at the same time to take the strain off the bolts.

Improved Pruning Knife.

Abraham C. Hulse, Palmyra, Ill.—This invention relates to pruning knives, and consists in a novel mode of combining the parts to form a pruning knife which shall be simple, effective and durable. It also consists in a peculiar mode of adjusting the relative position of the blades to take up the gradual wear upon them.

Improved Grindstone.

James F. Green and Sidney H. Green, Haverstraw, N. Y.—The object of this invention is to produce a perfectly true and central fastening for the cranks of grindstones, for the purpose of permitting their placing on and detaching at pleasure, economizing thereby in space and freight in shipping. The method provides a bushing cemented centrally to the grindstone, with a detachable crank. The different pieces may be separately packed, resulting in less damage to the goods and reduced expenses for freight.

Improved Hose Coupling.

Simon Ingersoll, Stamford, Conn.—This invention consists of a couple of short sections of metal tube, which couple together by a screw collar swiveled to one of them, and in connection therewith each section is provided with a clamp composed of two semi-circular parts connected together by flanges and bolts for clamping the hose on the metal tubes. The clamps are attached to the metal tubes by stud pins, which prevent the hose from slipping off the tubes endwise, as when clamped thereto by the ordinary two part metal clamps not connected to the tubes.

Improved Car Coupling.

Gebhard Koeb, Springfield, O., assignor to himself and Jacob B. Korn of same place.—The mouth of the bumper is made hopper-shaped, and with a horizontal opening between the inner edges of the upper and lower inclined sides of said mouth. The upper and lower inclined sides of a wedge-shaped cavity meet the upper and lower inclined sides of the mouth of the bumper head, just in front of the hole for the coupling pin, so as to form ribs, which angles serve as fulcrums to the coupling link, to allow its outer end to be raised to enter the bumper head of the adjacent car by lowering its inner end. The coupling pin passes down through a hole in the bumper, and upon its rear side is formed rack teeth connecting with a small gear wheel, attached to a rod. The rod passes through and works in holes in the flanges formed upon the upper side of the bumper, and which rise sufficiently high to protect the gear wheel. The ends of the rod extend out to the side of the car and terminate in a crank, or hand wheel. The lower end of the rack forms a shoulder, which rests upon the link, so that by turning the rod and gear wheel in the direction to force the pin downward, the inner end of the link will be lowered, raising the outer end of the said link to adjust it to enter the bumper head of the adjacent car. As the pin is raised, the outer end of the link will drop by its own weight. To the rod is attached a spring to hold the pin in any position.

Improvement in Attaching Knobs to Spindles.

Franklin M. Merriam and Joseph B. Merriam, West Meriden, Conn.—The spindle is made square, and has one, two, or more transverse notches or grooves formed upon the side of one end to receive the screw that fastens the neck of the knob. Upon the outer end of the spindle is cut a screw thread to receive the nut, the outer middle part of which is recessed to adapt it to serve as a cap to receive the neck of the other knob, which is secured to the spindle by a screw which passes in through a hole in the side of the socket nut, so as to lock the said nut as well as to secure the knob. A sleeve is slipped upon the socket nut to keep the screw from working out. The cavity of the rose is so formed as to receive within it the socket nut and sleeve, and its outer end projects inward so as to cover the ends of the said nut and sleeve, and fit upon the neck of the knob. The inner side of the plate of the rose is recessed to fit upon a washer, interposed between the said rose and the side of the door to prevent the door from being chafed by the said rose.

Improved Wrench.

Michael Bubser, Jersey City, N. J.—This invention is an improved wrench for turning the nuts of fish plate bolts, and other nuts and bolts that require great power to turn them. The base of the improved wrench is of such a length as to rest upon three ties at the same time. To the middle part is attached a wide bearing in which a shaft revolves and slides. One of the projecting ends of the shaft is enlarged, and in its outer end is formed a square hole of sufficient size to receive the nut to be operated upon. To the other projecting end of the shaft is attached a chain wheel, which is so small that its rim will not come in contact with the tie or ground. An endless chain, passes around the chain wheel and also around another chain wheel attached to a second shaft. By turning suitable screws the bearings may be raised to tighten the endless chain. Locking nuts are placed upon these screws so that the two halves of the bearings will be held close together. To the second chain wheel is attached an arm, to the outer end of which is attached a bolt, which passes through a longitudinal slot in a bar, and is provided with a hand nut. The other end of the bar passes over the projecting end of the wrench shaft, and is secured in place. Upon the end of the bar is formed a handle for operating. The arm and slotted bar thus form an extendible crank, which may be conveniently extended and contracted to give a greater or less leverage as more or less power may be required. The machine may be inclined in one or the other direction, as may be convenient in operating it. By this construction, as the machine is operated to turn the nut in one or the other direction, the movement of the nut upon its bolt will move the machine out or in.

Treating Cotton Seed Oil to Render it Drying.

Henry Goldmann, New York city.—This invention consists of a chemical treatment of cotton seed oil, to prepare it so that it can be used in the arts as a substitute for linseed oil. The inventor dissolves bichromate of potassa in water, heats to boiling point, carries into this clear cotton seed oil, agitating and mixing strongly for two hours; after twenty-four hours the oil is drawn off into another vessel, and here is added gradually, under constant strong agitation, *aqua regia*, freshly prepared, diluted with water. After settling the oil is again drawn off into another vessel, where it is mixed with oil of vitriol, diluted with water under agitation. It is then allowed to stand till clear enough for use.

Improved Harvester Cutter.

Frederick R. Sutton and William O. Sutton, Wellington, Ill.—This invention consists of independent ledger plates for the cutters of mowers and reapers, secured to the fingers by a lip at each rear corner turned down on the edge of the finger, and a bar above extending along the whole series, and secured detachably to the front edge of the finger bar, so as to be readily taken off to remove the plates for sharpening them. At the other ends the plates are secured by a notch in the end, and a notch or slot in the finger, as in other cases

Improved Wagon Seat Fasteners.

George Ruston, Freeport, Ill.—The object of this invention is to provide a fastener or latch, which is applied to both sides of a wagon seat, to connect the same firmly to the body of the wagon, so that the displacing or detaching of the seat is prevented, and a secure seat obtained. The invention consists of a hinge fastener combined with a latch applied to the sides of a wagon seat, the hinge fastener with bent end closing over the guide strip of the wagon body in connection with a pin locking into a hole of the same.

Improved Water Regulator for Boilers.

Calvin J. Weld, Brattleborough, Vt.—This invention consists, mainly, of the employment of a small tube or cistern by the side of the principal receiving cistern or vessel, into which small cistern the water is received and flows from it into the boiler, and in which is arranged a float having such connection with the cock for shutting the water off from the boiler that, when the water rises to the required level in the boiler, it will close the passage, and open it again when the water falls.

Improved Leg for Furniture.

James C. Orr and James M. Baird, Wheeling, W. Va.—This invention consists in constructing the legs of tables, desks, chairs, etc., in two parts, made and applied separately at right or other angles to each other, at the corners, and fastened separately to the table or other article, and fastened together at the bottom by a kind of lock-joint, secured by a button at the top on the table.

Improved Disinfectant Compound.

Jonathan Hilton, New York, N. Y.—This improved deodorizing and disinfecting compound is nitric acid mixed with oil of tar. This mixture is agitated with carbonate of lime. Sulphurous acid is caused to pass through, when, after settling, the fluid is separated from the solid parts. The solids are then dried, and, when reduced to powder, are fit for use. The fluid product is also very useful for pouring into sinks and other conduits requiring disinfection.

Improved Musical Railway Signal.

Reed A. Filkins, Cheshire, assignor to himself and Augustus R. Tyrrell, Savoy, Mass.—The object of this invention is to avoid the disagreeable and monotonous whistling of locomotive engines, and substitute therefor a more satisfactory method of signaling, and at the same time to indicate different signals, by the combination of harmonious sounds, or by various successions of sounds. This object is accomplished by providing a series of whistles in connection with the steam boiler of a locomotive engine so that one or more of said whistles may be brought into action by the engineer

Improved Hoe.

James M. Baird, Wheeling, W. Va., assignor to himself and Richard Stanley, same place.—This invention consists in an acute angled socket for attaching hoe blades to handles, the part or arm of the same which is to be secured to and cover the end of the handle being of semi tubular form, and provided with an inner projection or lug, and the other part being flat, or nearly so, to adapt it to be applied to the back of the hoe blade, to which it is secured by means of rivets.

Improved Hoisting and Conveying Apparatus.

Charles B. Stough, Monticello, Ill.—This invention consists of a portable apparatus, having a crank frame and roller frames, over which an endless chain is stretched, which is provided with adjustible links and hook carriages at suitable distances for hoisting and conveying the receptacles for the materials. Two of the roller frames are placed on the ground; two others are combined with the crank frame at any required hight above the lower frames and connected by guides which convey the boxes to the place of work. The chain is so constructed that it can pass over the rollers, which have separate shafts and are placed at some distance from each other, to allow the passage of the hooks between them.

Improved Combined Brake and Propelling Mechanism for Cars.

Jacob W. Hill, Jefferson, Iowa.—This invention is an improvement in the class of apparatus for propelling and braking railway trains, in which air is forced into suitable receivers when the train is checked, and its expansive power utilized into subsequently starting or propelling the train. The operation is as follows: When the train is running on a level, or when it is to be stopped or impeded by the brakes on down grades, so that all the steam is not required for driving it, the throttle valves will be closed, and air inlet valves will be allowed to act, thus converting the engines into pumps, which, being actuated by the running gear of the car, will force the air through passages into the receivers, which are connected together by a pipe, so that all may be filled to the extent of their capacity to retain it—say two hundred and fifty pounds to the inch; then valves will be fastened open to stop the pumping. At any time when more power is required than the steam is capable of exerting, the valves will be released so they can close, and the throttle valves will be opened, thus converting the apparatus into a motive power, which, being impelled by the compressed air, will largely aid the overburdened engine in its work.

Improved Churn.

Esau Archer, Davisville, W. Va.—In this invention the body of the churn is hung between standards so as to have a universal movement to adapt it to the dasher, which, worked by a crank, is provided with gearing so that it has both a rotary and an up and down motion.

Improved Smoke and Steam Burner.

John W. Kingman and Adolphus Eurgens, Laramie City, Wyoming Terr.—A box or trough, open at its top, is supported upon pivots attached to its ends, which work in bearings attached to the front and rear walls of the fire box. The coal to replenish the fire is first placed in the box, where it is exposed to the full heat of the fire. This heat expels the more volatile gases, which, with the smoke, are at once ignited and consumed. At the proper time the box is tilted, and the coke is dumped into the fire, so as to replenish without checking it. A steam pipe leads from the exhaust of the boiler, or from the boiler, and passes through the fire upon the grate. The pipe is connected, by a hollow pivot or other convenient means, with a pipe which extends along the bottom of the box, and has numerous holes formed in it. By this means the steam is superheated while passing through the pipe, and is discharged among the coal in the box, where it is decomposed, mingles with the smoke and volatile carbon from said coal, and is consumed.

Improved Shutter Worker.

Seth R. Foster, St. John, Canada.—This invention consists of an improved device for connecting all the window shutters upon each row, or upon each side of a storehouse or other building, so that they may be all closed or opened at the same time, and from any floor of the building upon which the operator may happen to be.

Improved Chair Seat.

James P. Sinclair, Elbridge, N. Y.—This invention relates to an improved mode of forming seats, backs for chairs, settees, etc. Strips of wood are placed edge to edge, and the ends enter grooves in the inner edges of the side bars of the frame. The forward edge of the forward strip and the rear edge of the rear strip enter grooves in the inner edges of the front and rear bars of the frame. The adjacent ends of the bars of the frame are framed and secured to each other in the ordinary manner. A strip of galvanized iron, flat or a wire, is passed through holes in the strips and its ends enter and are secured in holes in the front and rear bars. One or more of the metal strips may be used as may be required.

Improved Fireproof Floor and Ceiling.

William T. Butler, Chicago, Ill.—The joists are made of wood and form abutments for brick arches at the top or for the floor, and so as to support inverted arches for the ceiling or bottom. Braces of iron may be used for tying the joists together, the design being to keep the joists rigid and at a uniform distance from each other. A succession of arches forms the entire support of the floor. These arches are sprung from one joist to another, with bricks made for the purpose, supported by the beveled surfaces or abutments of the joists. The floor may be of any description. The lower part of the joist has beveled surfaces, which support the arches The bricks which form the arches come in contact with each other and form a continuous incombustible surface beneath the joists. The plaster or ceiling surface is laid directly upon the arches, thus dispensing with laths