

**Inventions Patented in England by Americans.**

[Compiled from the Commissioners of Patents' Journal.]  
From January 7 to February 8, 1876, inclusive.

BOAT DETACHER.—R. F. Hyde, Springfield, Mass.  
BOILER, ETC.—B. T. Babbitt, New York city.  
CAR AXLE.—T. S. E. Dixon, Chicago, Ill.  
CASTING COPPER, ETC.—J. Turner, Bridgewater, Mass.  
CONCRETE BLOCK PRESS.—T. Cook, Sing Sing, N. Y.  
COP TUBE.—G. H. Simmons, Bennington, Vt., et al.  
COP TUBE.—J. Essex, North Bennington, Vt.  
CUTTING OIL CAKE.—A. B. Lawther (of Chicago, Ill.), Liverpool, Eng.  
ELECTRIC REGULATOR.—J. Sangster et al., Buffalo, N. Y.  
EXTINGUISHING FIRES.—J. L. Hastings et al., Pittsburgh, Pa.  
FLANGING MACHINE.—R. C. Nugent, Dayton, Ohio. Two patents.  
FRICTION CLUTCH.—W. F. Holske et al., New York city.  
FURNACE.—E. Savage, West Meriden, Conn.  
GLOVE FASTENING.—F. G. Farnham, Hawley, Pa.  
HARVESTER SHOE.—Johnston Harvester Co., Brockport, N. Y.  
HORSESHOE.—E. L. Tevis, Philadelphia, Pa.  
HOT WATER SUPPLY.—J. Archer, Denver, Col.  
LAMP.—A. Burbank, Rochester, N. Y.  
LIQUID METER.—D. W. Huntington et al., South Coventry, Conn.  
LOCK WASHER.—S. E. Gee, New York city.  
LUBRICANT.—H. V. P. Draper et al., Hannibal, Mo.  
MAKING CIGARS, ETC.—J. T. Hannaman et al., Baltimore, Md.  
MAKING CONCRETE BLOCKS.—T. Cook, Sing Sing, N. Y.  
MAKING GAS, ETC.—J. P. Gill, Newark, N. J.  
MAKING SACKS.—H. F. Gariand (of San Francisco, Cal.), Dundee, Scotland.  
MAKING STEEL.—J. Baur (of Brooklyn, N. Y.), London, Eng. Two patents.  
MAKING STEEL RODS, ETC.—C. P. Haughian, Brooklyn, N. Y.  
METAL-TURNING LATHE.—H. M. Quackenbush, Herkimer, N. Y.  
PRINTING AND CUTTING MACHINE.—R. M. Hoe et al., New York city.  
PROPELLER.—J. Ellis, Freeport, N. Y.  
RAILWAY GATE, ETC.—S. A. Jenks, Lincoln, R. I.  
RAILWAY WHEELS, ETC.—J. Bowron, Sr., Philadelphia, Pa., et al.  
REEFING SAILS.—P. C. Marsh, Norhampton, Mass.  
REFRIGERATOR.—J. J. Bate, Brooklyn, N. Y.  
REVOLVING PISTOL.—E. P. Boardman, Lawrence, Mass.  
ROCK DRILL.—M. D. Converse, New York city.  
ROLLER SKATE.—S. O. Brown (of San Francisco, Cal.), London, England.  
ROWLOCK.—F. A. Gower, Providence, R. I.  
SCREWING MACHINE.—F. P. Sheldon, Providence, R. I.  
SEWING MACHINE, ETC.—R. H. St. John, Springfield, Ohio.  
SEWING MACHINE.—Howe Machine Company, Bridgeport, Conn.  
SEWING MACHINE.—J. E. A. Gibbs, Steele's Tavern, Va.  
SEWING NEEDLE.—H. M. Jenkins, New York city.  
SHARPENING SAWS.—W. L. Covell, Providence, R. I.  
STEAM ENGINE.—W. C. Wilcox et al., San Francisco, Cal.  
TREATING OIL SEEDS.—A. B. Lawther (of Chicago, Ill.), Liverpool, Eng.  
TYPE WRITER, ETC.—G. H. Morgan, Alexandria, Va.  
WOOD SCREWS, ETC.—T. J. Sloan, New York city.

**Recent American and Foreign Patents.**

**NEW AGRICULTURAL INVENTIONS.**

**IMPROVED BUTTER PACKAGE.**  
Andrew Jackson Dibble, Franklin, N. Y.—This is a new package containing butter, so constructed that the cover may be readily attached and detached, and when attached will be held securely and airtight in place, and will prevent the tub from spreading. It combines a novel arrangement of grooved catch blocks on the side and cover of a tub, together with a locking latch.

**IMPROVED MILK PAN COVER.**  
Alfred F. Morgan, Mason City, Iowa.—This is a cover for milk pans, made of wire gauze for the top, tin or other sheet metal for the rim and for the flange which shuts down the sides of the pan.

**IMPROVED HARVESTER RAKE.**  
Samuel M. Morrison, Fairfield, Iowa.—This is an improved attachment to harvesters that raise the cut grain to the binders' table by the action of vibrating rakes, so as to cause the grain to be delivered to the binders straight and even, without regard to its condition. The invention consists in the combination of the upper rakes and their crank shafts with the lower angular rakes and their crank shafts. There is a slight variation of speed of the rakes during a portion of their revolution, and the consequent jostling of the grain has a tendency to cause tangled grain to become parallel with the teeth, which are set in horizontal lines. The upper rakes are so set that their teeth may slightly overlap the teeth of the lower rakes, while leaving sufficient space between the rake bars, so that light and heavy grain will be carried up with the same facility.

**IMPROVED COTTON PLANTER.**  
Leonidas M. Rhodes, Warrenton, Ga.—This is an improvement upon a machine hitherto patented to same inventor, in which the seed is discharged through a slot in the bottom of the hopper. It is now found that a better result may be attained by constructing the hopper without a slot, and providing the traveling wheel with pins or fingers inclined rearward, so as to draw the seed toward the side of the wheel and deliver it through the space between the hopper and wheel.

**IMPROVED STUMP EXTRACTOR.**  
John Platten, Fort Howard, Wis.—This is a vertical windlass operated by a horizontal sweep, to which the power is applied. The windlass winds the fall of a single purchase, from the moving block of which connection is made to the stump by a series of bars secured together. The lower end of the windlass cylinder revolves in a ring formed in the center of a lower bar, and rests and revolves in a cup-shaped plate connected with and supported from the bar, a space being left between the edge of the cup and the ring of the bar, to enable any sand or dirt that may get into the said cup to be conveniently removed.

**IMPROVED GRIT SEPARATOR.**  
Walter M. Jackson, Augusta, Ga.—This consists of a pair of riddles, which detain and transversely shake the grain until the latter passes through their perforations, while the lighter impurities are eliminated in front of the winnower by a blast from the fan, coming lengthwise. Beneath the lower riddle is placed a pair of conveyers, converging toward each other in a downward direction, and toward the middle of a subjacent grading sieve.

**IMPROVED CHURN.**  
David L. Epperson, Mill Shoals, Ill.—The novel feature here is a dasher geared with a crank shaft, so as to be rapidly revolved, and thus cause the cream to flow continuously into the wheel at the top, through and out of it at the periphery, and back to the top, by which it churns the cream into butter in a short time.

**NEW CHEMICAL AND MISCELLANEOUS INVENTIONS.**

**IMPROVED SHIRT.**  
Geo. D. Eighmie, Poughkeepsie, N. Y.—This invention relates to certain improvements in shirts, designed to obviate the breaking and rumpling of the bosom produced by the bending of the body and the girding of the suspenders. It consists in a bosom or front attached to the shirt about an inch from the edge, so as to leave a

coarse edge all round, beneath which the suspenders pass when bending forward. The upper part of the bosom is attached to the neck band below the yoke band, so that the pressure of the suspenders on the shoulders does not cause the top of the bosom to bend or rumple.

**IMPROVED HARNESS.**  
Benjamin H. Cross, Byron, Ga.—In order to connect the trace chain and back strap, this inventor suggests a couple of rings and a buckle tongue suspended from a bar fastened in a loop attached to the back strap, so that the trace chain passes through the rings and is fastened by the tongue.

**IMPROVED CARTRIDGE.**  
Louis T. De Froideville, Paris, France.—This inventor interposes between the powder and the bullet a layer of grease to keep out dampness, to operate as a gas check, and lubricate the gun; and then, to prevent the grease from permeating the powder grains, he places between the grease and the powder two wads, with a metallic plate placed between them to prevent the absorption and penetration of the grease through the wads.

**IMPROVED HARNESS SADDLE.**  
Robert Spencer, Brooklyn, N. Y.—The object of this invention is to increase the flexibility of a harness saddle, so as to cause the same to automatically adjust itself to the horse's back. It consists in the combination, with the bearings and trimmings of a harness saddle, of a thin main plate of elastic steel, securely attached to, and worked up with, the other parts of the saddle. The crupper loop also, being held in place by the crupper, and the water hook, being held in place by its rein, cannot turn.

**IMPROVED LOCK FOR TRUNKS, ETC.**  
Christian H. Stall, Red Falls, N. Y.—This consists of a system of checks to obstruct the turning of the key and prevent the unlocking of the lock, except by one acquainted with the order of operation by which the checks may be displaced or avoided.

**NEW HOUSEHOLD ARTICLES.**

**IMPROVED COMBINED SKIMMER AND FORK.**  
Emerson E. Flagg, Brattleborough, Vt.—A skimmer and a fork are here connected with each other in such a manner that they may be slid back and forth upon each other, to adapt the instrument to be used as a skimmer or as a fork.

**IMPROVED CUPBOARD.**  
Lewis Spangler, Auburn, Ind.—This is a cupboard constructed to extend through two stories, connecting the kitchen and dining room floor with the cellar floor below. It is set into the dividing wall of the kitchen and dining room, and arranged with doors at both sides to give access from either side. The cupboard is arranged with sinks, hinged tables at both sides, and an elevator that is raised and lowered by hoisting mechanism, to connect with the cellar. A refrigerating and other shelves serve to preserve articles that have to be kept in a cool state.

**IMPROVED FLOUR SIEVE.**  
Ferdinand Blair, Pleasanton, Kas.—This invention relates to supporting the rotating crank shaft of the sifter upon arms which are bent upward at the middle: the object being to provide a space at the center of the concave wire bottom of the sifter for reception of hard particles in the flour, or worms, insects, or other foreign bodies.

**IMPROVED LAMP.**  
George Sherwin and Edmond Hoople, New York city.—In this device the chimney is fitted on guides, with or without friction rollers, to enable it to be raised up and let down for lighting, trimming, filling, etc. The guides control and keep the chimney in place, so that it will not fall when raised up, and will drop into its place with certainty when down.

**IMPROVED WEATHER STRIP.**  
Thomas Walker and Washington A. McCrery, Pleasantville, Md.—The object of this invention is to provide a weather strip for closing the crack between the door sill and the bottom of the door. It consists in the particular construction of a strip of molding having an extensible slide held to the molding by a spring, with a strip of rubber upon its bottom, and the whole so arranged that, when the door is open, the spring holds the slide up and away from the carpet, and out of sight, and when the door is closed the said slide is extended downward, so as to entirely close the crack.

**IMPROVED MOTH-PROOF COMPOSITION.**  
Wm. H. Hall, Jersey City, N. J., and John Kennell, Passaic, N. J.—The invention relates to that class of preventives which have been long employed to deter moths from attacking woolen goods, furs, and pictures, and consists in dissolving purified tar and mixing it with camphor, merbane, citronella, bitter almonds, and extract of cedar. The solution may then be sprinkled on the wrapper or envelope in which the article is to be enclosed.

**NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.**

**IMPROVED TIRE UPSETTER.**  
Charles H. Reynolds, Brooklyn, N. Y., assignor to himself and William Freudel, same place.—This invention consists of gripper jaws fixed on pivots so as to adjust automatically to tires of any radius; and it also consists of a novel contrivance of the pivots for both the stationary and movable jaws, arranged so that the resistance is taken directly by the supporting blocks instead of being expended on pivot bolts.

**IMPROVED THILL COUPLING.**  
William O. Hanby, Oseola, O.—In this thill coupling, the inventor employs a clip having a perforated block, through which passes the pintle, to which the thill iron is hinged. The invention is a non-rattler, the work and wear being brought upon the coupling bolt, while the knuckle at that point is subject to the pressure of rubber.

**NEW MECHANICAL AND ENGINEERING INVENTIONS.**

**IMPROVED COMBINED BARREL HOOP MACHINE AND COILER.**  
George C. Skidmore, Grand Rapids, Mich.—This invention relates to a novel construction of a machine for making barrel hoops. It consists in the arrangement of devices for feeding the boards to a reciprocating shuttle, carrying a knife which at each stroke cuts off a hoop slip. It also consists in the means for automatically reversing the motion of the reciprocating shuttle, and in the means for trimming the ends of the hoop slip, crimping it into the circular form, and coiling them into bundles for the market.

**IMPROVED BELT COUPLING.**  
James K. P. Shelton, Gaston, Ala.—A series of square holes is made in each end of the belt. On the under side of the latter are placed transverse wires. The lacing is first secured to one end of the belt, passed through the first hole around the wire, then led to the other end of the belt, carried through the opposite hole and around the wire, and so on until all the holes are laced. Notched strips of belting are inserted between the wires and the belt to prevent wear.

**IMPROVED CAR COUPLING.**  
Horace Resley, Cumberland, Md.—This invention relates to certain improvements in that class of automatic car couplings in which a gravity catch is pivoted in the draw bar so as to rise above the entering link and fall through the same to effect the coupling. It consists in the particular construction and arrangement of the said gravity catch, provided with a hole which receives a coupling pin of the ordinary construction, to secure the short links of cars unprovided with the gravity catch, whereby the devices are equally as well adapted to be coupled with the draw bars of the ordinary form.

**IMPROVED TREADLE.**  
Henry Reese, Baltimore, Md.—The object of this invention is to lessen the fatigue of operating sewing machines and other devices run by treadle power by means of a peculiar construction of treadle which permits the movement of the latter to be made without bending the ankles, and enables the operator to run the machine with a very light expenditure of muscular power. This result is accomplished by a peculiar construction of two independent treadles hinged or pivoted upon opposite sides of the fulcrum of the main treadle, held in proper horizontal position by means of springs, and arranged adjustably for either foot foremost.

**IMPROVED SCREW-CUTTING DIES.**  
Shadrach N. Cudworth and George R. Stetson, New Bedford, Mass., assignors to the Morse Twist Drill and Machine Company, same place.—The die consists of two parts, held together by means of a guide, which has holes for screws formed in it, which are elongated to admit of adjustment of the dies to which the guide is connected. The invention also consists of two adjusting screws fitted in the body of one part of the die to secure the die positively after being adjusted, and an improved adjusting die and guide connected with a screw plate.

**IMPROVED BELT STRETCHER.**  
Frederick L. Spiess and William Spiess, New York city.—Bars are clamped on the meeting ends of the belt. On the ends of said bars are journaled two or more loose pulleys; also hooks are fastened on two or four of the extremities. To the hooks are attached the standing parts of cords which, passing over the pulleys of the bars, form tackles whereby the ends of the belt may be drawn together.

**IMPROVED PUMP PISTON.**  
Lorenzo D. Hovey, Clinton, Ill.—This piston has tapering base rings, between which an elastic packing ring is secured. The rings are perforated to allow the entrance of guide rods, which are of such a height that a heavy cylindrical valve may slide vertically within them. Their upper ends are attached to the connecting socket of the pump rod. On ascent of the plunger, the valve's leather-lined packed bottom bears on the interior wedge ring, so as to close the opening through it watertight. The descent of the piston lifts the valve and allows the passage of the water through the base rings.

**IMPROVED GIGGING MACHINE.**  
Carl Gerber, Sr., and Christian Woelfel, Webster, Mass.—This invention consists in combining, with the stretching and guiding rolls of a napping machine, sliding napping cards, arranged between each pair of guide rolls, and adapted to reciprocate in planes at right angles thereto. The quick withdrawal of the cards from the cloth gives them, it is claimed, no chance to stick, and overcomes thereby the objectionable rigidity of the rotating wire cards, while doing the dressing in a more perfect and rapid manner than the teasels, but without the expensive and troublesome features of the same.

**IMPROVED NAIL MACHINE.**  
Stephen Butterfield, Boston, Mass.—This invention consists of two sets of dies, arranged like comb teeth and fixed on slides. The latter are caused to move the teeth of one set into the spaces of the other set, in which condition they form dies, which shape rods hanging down from a feeder, so that they are caught between the fingers and shaped into nails by them. Below these fingers the projecting ends of the rods are upset, to form heads, by a header forced up nearly against the dies by the slide which works the dies. The points are formed by the upper margins of the dies, and by cutters immediately above the dies the points of the nails are separated from the rods. The header then moves laterally a little, and opens passages for the escape of the nails when freed by the opening of the dies.

**IMPROVED ROTARY ENGINE AND WATER WHEEL.**  
John Lucas, Hastings, Minn.—This invention consists in the construction of a revolving piston wheel, which is formed of two parts, in diametrical registering slots, in which is arranged a piston plate, the journals of which are seated in recesses made in the parts of the piston wheel. The pivoted piston is arranged to oscillate in a line at right angles to the rotation of the piston wheel, by the action of the water or steam admitted into the engine casing. Said casing is provided with an oblique opening for the passage of the piston-wheel shaft, so as to cause the beveled sides of the piston wheel to bear against the inner sides of the casing. The pivoted piston plate is made in two or more parts, to adapt it to receive and hold packing between said parts.

**IMPROVED POST DRIVER.**  
Isaiah W. Norton, Memphis, Mo.—This is an improved portable post driver, that may be used on sloping ground for the purpose of driving in the posts in perpendicular position with great rapidity. The hammer is raised by bringing one of the cams on the end of a lever, and the post is then placed into position in the guides. The hammer is then adjusted to the height of the same by raising or lowering its pivoted supporting frame. When the hammer is in the required position, the drum is operated and the cams of the actuating wheel will engage the hammer lever, producing powerful strokes of the hammer in rapid succession, until the post is driven into a level with the height of the bed frame.

**IMPROVED WATER ELEVATOR.**  
Andrew B. Flowers, Thibodeaux, La.—This consists mainly of an endless bucket chain. The buckets are provided with suitable guards to prevent the escape of water. There are devices for changing the tension of the chain, and also an adjustable spout. The apparatus is suitable for draining marshes, irrigating land, and the like.

**IMPROVED CHEESE CUTTER.**  
Bowne G. Yates, Madelia, Minn.—A hinged section is opened for the purpose of cutting off a portion of the cheese; the knife is then raised and the platform turned till a piece of required size is below the knife, which is then carried down, cutting the pieces in radial direction from the cheese. After the piece is taken out the front section is brought back on the base part, so as to inclose thereby the cheese completely, and keep off flies, etc.

**IMPROVED SPRING POWER.**  
Charles M. Frahm and William Scharnweber, Chicago, Ill.—This is a new arrangement of a series of coiled springs and gears, whereby a large number can be arranged in a small space, and each spring can be wound up independently of the others, and while the machine is running. There is an ingenious regulating apparatus and stop mechanism, the whole forming a machine designed for wherever light power is required.