

MANUFACTURING, MINING, AND RAILROAD ITEMS.

Figures at the Hydrographic office show that the power at Rumford, Me., on the Androscoggin, due to the known height of the fall and the estimated volume of water, is not less than 15,644 horse-power at low water.

The Western Union Telegraph company, have completed their lines, so that Helena, Montana, is in communication with New York.

The California papers announce new discoveries of asphaltum near Wilmington, Los Angeles county, some of which comprise many acres. A company has of course been organized and they propose to make thorough tests of the new acquisition, relating to its value as a fuel.

A Wisconsin wine manufacturer had 5,000 pounds of grapes frozen last year. This year he made wine from them which proved to be 100 per cent better than that made from grapes not frozen.

A ship canal through the Florida peninsula is advocated by the Southern newspapers. Such a canal would be less than a hundred miles long, and greatly shorten the journey from New Orleans, to New York, and be the means of avoiding the dangers of the Florida coast.

A sugar refinery in London has one of Wilde's electro-magnetic machines, driven by a 15-horse power engine, employed in the refining of sugar, it having been demonstrated that a stream of electricity driven through a solution of brown sugar would bleach it, much better even than charcoal.

The total length of railroad necessary to connect San Francisco with New York is 3,360 miles. The cars are now running over 1,985 miles or a little more than half-way.

Extensive works are under way in San Francisco for the manufacture of lead on a large scale. The supply of ores is very abundant and generally sufficient silver is in combination to pay for transportation and extraction.

The Central Pacific Railroad earned over \$200,000 in October with less than 100 miles in operation from Sacramento to Cisco.

Passengers on the Pacific railway, E. D., between Ellsworth and Hays last week witnessed an exciting encounter between a herd of buffaloes and the express train. For three miles the buffaloes pushed along parallel with the train and although many shots were fired nothing could stop the tide of the stampeding beasts. Finally they swept across the track ahead of the locomotive, fairly wounding the iron horse by bringing him to a halt.

L'Evenement, of Quebec, says that an immense deposit of black iron sand has been discovered on the banks of the St. Lawrence, near Batiscan.

The exhibition of the first bar of American tin at the St. Louis Fair has had the effect of increasing public confidence in the Missouri mines. Owners of land are not disposed to sell on large advance over their purchase price. Mining operations are progressing, though slowly, and large furnaces are being completed and will be running as soon as possible.

The plan is meeting with favor in England of instituting a system of accidental insurance for miners, the mine owners paying the premiums and insuring the men, while on the other hand the companies are to issue policies not to each individual by name but for such a number of strikers, boys, etc., employed. The individual miners might come or go without affecting the policy, and in case of fatal accident in the mine the insurance would be paid without reference to identity of the victims but according to number and rank.

From the great scarcity of fuel, steam engines have never been introduced for pumping in the silver mines of the Hartz mountains, but with an excellent system of races and reservoirs the water is got rid of by water wheels and turbines. The mines having reached a depth of 3,200 feet, adits were from time to time driven to lessen the labor of the machinery, but at last a point was reached which threatened the total suspension of the work and loss of employment to 2,500 miners and smelters. Eight years ago, as a last resort, surveys were made and a tunnel commenced for draining still deeper. This undertaking is finally finished, and has satisfied all expectations. Its length is 23 miles, and so exact were the surveys that in the 18 ends (one mile from each other) the bearings were but five inches out of reckoning for the whole length. Great rejoicing succeeded the completion of the work, a solemn thanksgiving in the Lutheran churches, processions, etc. It is now certain that the mines can be carried on until the year 1857. They were first worked in the year 1326 and have been productive ever since.

Immense works have just been commenced in the south of France for rendering the Rhone navigable from Arles to the sea. Three miles of large sand banks which now completely block the river, are first to be removed; the Canal St. Louis must be extended two miles, a lock be erected at the mouth, and other improvements which will cost in their undertaking eight million francs. In the same province they have also begun draining the marshes and improving the state of the Camarque, a sort of island formed by the two branches of the Rhone.

Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the new and foreign patents.

IMPROVED SYRINGE.—Jas. J. Essex, Newport, R. I.—This invention relates to a new and improved syringe, which is applicable to all purposes for which a syringe is required, and which consequently may be termed an "universal syringe." It being capable of being used as a camera apparatus, or as a double syringe and is portable and capable of being adapted for use in a moment of time. This improved syringe is of the modern class in which the pump (cylinder and piston) is dispensed with, and an elastic belt used instead. The invention consists, 1st, in a receiver, or reservoir, provided with a glass, or transparent plate, inserted in its side, so that when the device is used for enema-giving purposes, a precise quantity of liquid may be used, to wit, a gill, pint, etc., as may be required, and this receiver, or reservoir, is designed to accompany the apparatus, and form a part of the same. The invention consists, 2d, in a rose, or perforated nozzle, which is termed a "douche," whereby wounds may be irrigated with a delicate spray of warm or cold water, as may be required. This device is also valuable for cleansing or washing the eyes. The invention consists, 3d, in using in connection with an elastic bulb, as a suction and force pump, an elastic and metallic tube, placed at or attached to opposite ends of the bulb, and using in connection therewith an air chamber, all being so arranged that a continuous stream may be thrown from the suction tube, and the device adjusted to suit the various uses required of it. The invention consists, 4th, in a novel and improved arrangement of packing, whereby perfectly tight joints may be obtained.

HAND HAY RAKE.—Albert J. Greene, Sterling, Mass.—This invention has for its object to furnish an improved hand rake, simple in construction, easily operated, and which will do its work well.

POINT FOR PRINTING PRESS.—Nicholas Hopkins, New York city.—This invention has for its object to furnish an improved device for the purpose of making holes in printed sheets, preparatory to their being folded into book form by machinery, said point holes being necessary to insure perfect register.

APPARATUS FOR CLEANING STOVE PIPE.—A. W. Smith, Pierpont, N. Y.—This invention has for its object to furnish an improved means, by the use of which horizontal stove pipe may be readily and quickly cleaned, without its being necessary to take down the pipe and soil the room.

BARN DOOR AND GATE FASTENER.—Lorenzo B. Hayes and Wm. Morris, Greene, N. Y.—This invention has for its object to furnish an improved fastening for barn doors, gates, etc., cheap, durable, and simple in construction, which will fasten the door both open and shut automatically, securing it at top and bottom, and which may be adjusted to compensate for the sag of the gate or door.

EXTENSION TABLE.—F. R. Wolinger, Chicago, Ill.—This invention has for its object to improve the construction of F. R. Osgood's extension table, patented January 2, 1866, and numbered 51,335, so as to make it capable of a greater extension, while occupying no more room when folded.

HORSE HAY FORK.—Mark Coffin, Milton, Ky.—This invention has for its object to furnish an improved horse hay fork, simple in construction, easily operated, not liable to get out of order, and effective in operation.

BALING PRESS.—Joseph P. Taylor, Hudson City, N. J., and Jackson R. Baker, Jersey City, N. J.—This invention has for its object to furnish a simple compact, convenient and powerful baling press, and one which shall at the same time be easily operated.

ATTACHING WHEELS TO AXLES.—L. Crouch, Baraboo, Wis.—This invention has for its object to improve the manner of attaching the hubs of wheels to their axles, so as to make their connection more secure, convenient, and less liable to get out of order.

CORPSE PRESERVER.—Charles W. Compton, Newark, N. J.—This invention has for its object to furnish an improved corpse preserver, so constructed and arranged as to be easily and conveniently handled and operated, economizing time, labor and ice.

DEVICE FOR SUPPORTING WINDOW SASHES.—Joseph R. Payson, Chicago, Ill.—This invention consists in an automatic or self-acting friction wedge placed either in the side of the window frame or in the edge of the window sash and constructed and arranged in such a manner that it will support the sash in any desired position within the scope of its movement by friction and act more powerfully when the sash is stationary or while it is being lowered than when it is being raised, but still admitting of the sash being either raised or lowered by the pressure of the hand upon it alone, no other manipulation being requisite. The device is concealed from view, holds the sash square in the window frame and prevents it from rattling.

REVERSIBLE CHAIR SEAT.—Mathias Hamburger, New York city.—The object of this invention is to so arrange the seat of barbers' and other chairs that the same can be easily reversed so that every new occupant may be provided with a fresh and cool seat.

LUBRICATING CARRIAGE AXLES.—Edrick Thomas, Kickapoo, Ill.—The object of this invention is to lubricate carriage axles without removing the wheels from the axles. To this end the invention consists in boring a hole in the hub directly back of the spokes and inserting a tube to receive a bolt or plug, the metallic box of the hub being tapped and the hole closed by the bolt or plug when the latter is inserted in the hub. In order to lubricate the axle the bolt or plug simply requires to be removed, oil poured into the tube and the latter filled or stopped by inserting the bolt or plug.

LAMP FOR CAR AND OMNIBUS FARE BOX.—John B. Slawson, New York city.—This invention relates to a new mode of arranging the lamps which are provided in omnibus or car fare boxes. The object of the invention is to so place the light in the box that it will not blind the driver's eyes and that it will illuminate the trap upon which the money falls when thrown in by the passengers. The object of the invention is also to adapt the lamp to fare boxes already in use so that the box need not be changed.

MACHINE FOR SHARPENING HORSESHOES.—Wm. M. Butler, Waukegan, Ill.—This invention relates to a machine by which the calks of horseshoes can be quickly and easily sharpened without taking the shoe off the horse's foot; the device operating so that a whole span of horses can be completely sharpened in about twenty minutes.

COMBINATION HINGE.—Antonio L. Mora, New York city.—This invention relates to a new and improved device for supporting in any required position the covers of trunks, chests, desks, boxes, and all articles of similar construction.

DOUBLE PLUNGER PUMP.—George Shield, Cincinnati, Ohio.—This invention consists in forming the pump barrel in two parts and in using two plungers one a solid or closed plunger and the other a shell or open plunger.

STEAM AND WATER ENGINE AND PUMP.—E. McClintock, New Brunswick, N. J.—This invention relates to a new and improved method of constructing and arranging the parts of steam and water engines and pumps whereby the power may be applied to the piston in the simplest and easiest manner, and the invention consists in employing two double-acting cylinders in each of which cylinders the piston acts as a four-way valve for the distribution of steam or other fluid or liquid to the other cylinder.

DEVICE FOR MAKING BRICK.—Daniel Woodbury, Minneapolis, Minn.—This invention consists in the construction of a machine by which a number of bricks may be taken from the yard (where they have been deposited from the molds to dry) and carried by hand to and arranged in the pile called by brick makers a "hake."

MACHINE FOR CUTTING TUBES.—Nicholas Thomas, Chicago, Ill.—The object of this invention is to furnish a machine or tool for cutting off the end of boiler tubes or tubes for other purposes and the invention consists in arranging in a suitable stock a cutting tool which is forced outward with a screw by means of a double inclined plane.

STEAM AND VAPOR CYLINDER.—Alexander Webster, Seneca Falls, N. Y.—This invention relates to the use of steam or vapor in the process of dressing woolen and other clothes and in other processes and for other purposes and it consists in adjusting a perforated steam pipe in a perforated cylinder with suitable provision for the discharge of the water of condensation.

SALT AND PEPPER SPRINKLER.—George W. Putnam, Peterboro, N. Y.—This relates to an invention for sprinkling salt, pepper, etc. In this invention the holes are made on one side of the cap or cover, and the bottle is held horizontally when used. This prevents clogging as the weight of the salt, etc., cannot press against the portion nearest the holes the weight being supported by the side of the bottle.

COMBINED CARRIAGE AND CRADLE.—C. W. Higgins, Waukesha, Wis.—This invention consists in so hanging or attaching the body of a child's carriage to the axles of the same that it can be readily attached and detached at pleasure, and in providing such body with rockers so that when detached it can be rocked upon the floor whereby a combined carriage and cradle is produced.

MEANS FOR DEPRIVING WOOL OF ELECTRICITY.—George R. Gardner, Westley, R. I.—This invention consists in certain means employed for preventing the development of electricity during the condensing operation, whereby a great amount of stock is prevented from being wasted and the condensing operation greatly expedited.

BLACKING BRUSH.—George R. Burden, Waltham, Mass.—This invention relates to that class of such brushes as are provided with two brushing surfaces the one for applying the blacking to the boot, and the other for rubbing and polishing the boot after the blacking. The invention consists in attaching or securing to the back of a blacking brush in any suitable manner to be readily detached, a box or receptacle of blacking, and in so hanging the brush on the same side of the blacking brush thereto that it can be swung over to and upon the blacking in the box, for being coated or provided therewith when being swung back to its original position it will be so held that the blacking contained on it can be applied to the boot or shoe.

CAR WHEEL.—John Harris, Marquette, Wis.—This invention relates to an improvement in the construction of railroad car wheels for lubrication of the parts while at the same time they are held together solidly.

WAGON BRAKE.—Ezra N. Curtice, Spring Water, N. Y.—This invention relates to an improvement in the construction and arrangement of a brake on a wagon and consists in attaching a rocking brake shaft to the hounds and reach in front of the wheels on the ends of which are eccentric arms or projections on which are loosely hung the brake shoes or rubbers in such a manner that they shall bear against the wheel to operate them and shall be free from pressure on the wheel when the brake is not required.

STEAMBOAT PADDLE WHEELS.—E. C. Smith, Old Ripley, Ill.—This invention relates to an improvement in the construction of paddle wheels for propelling steamboats, and consists in attaching fixed eccentrics upon the frame, having loose revolving collars around them, which are connected with the paddles by jointed arms, in such a manner that upon each revolution of the wheel the paddles dip perpendicularly, as they descend into and rise with the water, and thus present a constant resistance at right angles to the line of the horizon.

DOOR LOCK.—Michael Knapp and John Knapp, Hudson city, N. J.—This invention relates to a door lock, in which iron bolts are used, the main bolt being locked by an auxiliary bolt, whenever the door is locked; while when unlocked the main bolt is perfectly free and can be moved directly by the key. The parts are so arranged that the key can only be turned in one direction, both for locking and interlocking. By the application of the auxiliary bolt the main bolt is held firm when locked and cannot be moved back by pressing from the outside.

HANGINGS FOR WALLS OF PARLORS AND SALOONS.—J. M. Southern, New York city.—The object of this improvement is to introduce a new and beautiful covering, or hanging, for the walls of parlors and saloons, by employing for this purpose, instead of wall paper, a delicate tissue, or gauze fabric of silk, the surface of which is watered like moire antique, or ornamented with figures in various colors.

WHIP SOCKET.—E. W. Scott, Wauregan, Conn.—This invention relates to a new and improved fastening applied to a whip socket in such a manner as to hold the whip firmly therein, prevent it from moving or shaking laterally, and at the same time not interfere in the least with its ready insertion in the socket, and its withdrawal therefrom.

WAGON SEAT.—R. N. Rockwell, Glenwood, Iowa.—This invention relates to a novel application of springs to a wagon seat, more especially designed for the seats of lumber and business wagons. The object of the invention is to obtain, by a very simple and economical means, a spring seat which will not, in the application of the springs, interfere in the least with any of the parts of the wagon or the load which may be placed therein.

SNAP HOOK.—C. H. Atwood, New Britain, Conn.—This invention consists in combining a snap hook with a plate in such a manner that the plate will serve as a protection to the snap hook, and prevent the latter being injured by abrasion or rubbing, as is more frequently the case, when the device is applied to those articles for which the invention is more especially designed, as horses are very generally addicted to the habit of rubbing their heads against posts and other fixtures, when attached or hitched thereto. The invention also consists in the mode of manufacturing the invention, whereby a good substantial article is sure to be obtained.

BEVEL AND TRY SQUARE.—John Graham, Ludlow, Vt.—This invention relates to a new and improved combination of a bevel and try square, whereby a very useful implement is obtained for carpenters and joiners.

HORSE YOKE.—Thomas J. Barnes, Cambridge, Ill.—This invention has for its object to simplify the construction of harness, and at the same time furnish an arrangement by the use of which the horses may be worked close up to trees, fences, etc., without injuring the trees, or catching upon the fences.

STOVEPIPE DRUM.—Eben Webster, Holland, Mich.—This invention has for its object to furnish an improved stove drum so constructed and arranged as to obstruct the escape of the heat into the chimney, and cause it to be radiated through the room, which also acts as a damper to regulate the draft of the stove, and which is a complete spark arrester.

ANNUNCIATOR.—Henry Gross and George S. Yingling, Tiffin, Ohio.—This invention is designed to furnish an improved annunciator for use in hotels and other places.

SPINNING WHEEL.—Jonas H. Rowe, Hudson, N. Y.—This invention relates to a new and useful improvement on the simple spinning wheel for household use, and it consists in a novel and useful modification thereof, whereby the operator can spin while sitting perfectly still on a stool or chair by the side of the machine. The object of the invention is to avoid the walking toward and from the spindle hitherto required, in order to draw out or attenuate the roving while being spun, and to cause the yarn as spun to be wound upon the spindle. To this end the invention consists in having the spindle head attached to a radius arm arranged in such a manner that it may be moved through the medium of a treadle, and the spindle made to approach and recede from the operator at the will of the same, the provision being made for the tightening of the belt.

PROPAGATING BED.—N. H. Lindley, Bridgeport, Conn.—This invention relates to a new and improved application of heated water to propagating beds in propagating houses, and has for its object the heating of the bed to a proper or required temperature, and at the same time keeping the temperature of the house sufficiently high to avoid the condensation of vapor, and a consequent damp atmosphere within the house. The great difficulty hitherto experienced in propagating plants by bottom heat has been the keeping of the bed, and the house in which it is placed, at a proper temperature with one and the same heating apparatus—the house, if kept at a proper temperature in cold weather, causing the bed to be unduly heated, and if the latter be kept at a proper temperature, the house being too cold, or of sufficiently low temperature to admit of the vapor condensing, and causing the atmosphere to be damp and unfavorable to the healthy development and growth of the surrounding plants. In order to avoid this difficulty two different heating apparatuses have, in some instances, been used, but this plan is attended with great expense and considerable trouble. This improvement will keep both the propagating bed and the house at a proper temperature with one and the same heating apparatus, which may be very economically constructed.

APPARATUS FOR RAISING AND SECURING THE LEGS OF HORSES TO SHOE THEM.—J. P. Champion, Phelps, N. Y.—The object of this invention is to raise and secure the leg of a horse in order to shoe or otherwise handle him safely with impunity, and it consists of an apparatus formed of straps and levers attached to a frame so arranged that a horse may be kept in position, and have one leg at a time lifted from the ground and held in a bent position securely.

RAILROAD CHAIN.—Peter Allen, Rutland, Vt.—This invention relates to an improvement in the construction of railroad chains, and consists in making two plates of cast iron which form the bed and sides of the chain, and are connected transversely by two screw bolts and nuts, and are secured to the rails and the sill of the track by four spikes, two on each side, passing through both plates, and the flange or base of the rails.

LIFTING JACK.—Jacob Stoddy, Ripley, Ohio.—This invention relates to a new and improved method of constructing jacks for lifting purposes, and the invention consists in operating upon an upright lifting bar by an eccentric lever.

SOLAR PRINTING CAMERA.—Lyman D. Bigelow, Albion, Mich.—This invention relates to a new and improved method of moving and guiding the condensing lens of a solar printing camera, whereby it is adjusted so as to correspond with the position of the sun during the day, and during the different seasons of the year.

CEMENT.—John James Bolmer, Newport, Great Britain.—This invention relates to the manufacturer of cements for various purposes, and the combination and use of new materials or substances therefor.

GAGE FOR SEED PLANTER.—H. C. Fairchild, Brooklyn, Pa.—This invention relates to an improvement in the gage of a seed planter, whereby the gage can be set on the hopper from the outside, the seed planter, to which the improvement is attached, being the one for which letters patent were granted in 1860.

WASHING MACHINE.—G. C. Selfridge, Saratoga Springs, N. Y.—This invention relates to a double acting washing machine, the ends of which has a corrugated bottom and ends and both ends of the plungers being rounded. Thereby the plungers will be enabled to operate on both ends of the washing machine and twice as much work can be done than by the single washing machine.

CAR COUPLING.—Lewis O. Shultz, Mattoon, Ill.—This invention consists in attaching to the drawheads of the car a coupling pin and a guide piece and a hinged catch all of which are made to operate effectively without the aid of springs or weights.

SPRING BOTTOM FOR BEDS, SLATS, ETC.—J. W. Wilder, New York city.—This invention relates to a spring bottom which is applicable to beds, seats of chairs, lounges, sofas or any other article to which a spring bottom may be applied. It consists of a series of springs which are enclosed in tubes and acted on by plungers with large heads on which the cushion, mattress or other article is placed either directly or with intervening slats in such a manner that by the heads the cushion is preserved from being injured by the springs, and furthermore the springs by being enclosed in tubes are prevented from tilting over and consequently they are enabled to retain their power and elasticity for a long time.

METHOD OF ORNAMENTS GLASS LAMP SHADES AND GLOBES.—Richard Guthrie, and John Shearer, New York city.—This invention relates to a new manner of ornamenting plain glass globes or shades for gas or oil lamps, and consists in providing sectional pieces of colored or stained glass, and in fitting the same to wire or other clamps by means of which they can be suspended from the edges of the globe or shade.

MILK CAN.—Nelson C. Burnap, Argusville, N. Y.—This invention consists in rounding the bottom of the can for the purpose of avoiding the creases which were formed where a flat bottom is used, and in which dirt could easily accumulate but could not so easily be washed out again.

SLEIGH BELLS.—Cyrus R. Clark, Cobalt, Conn.—This invention relates to a sleigh bell to which a shank is cast in the usual manner. To each side of the shaft are secured by means of rivets or otherwise sheet metal plates, which project beyond the lower end of the shank, forming flanges, when inserted in a leather strap, the flanges project beyond the inside of the same, and are then bent out, so as to firmly lock the bell to the strap.

BED BOTTOM.—Frederick Leadbeater, Detroit, Mich.—This invention relates to a new and improved mode of attaching wooden slats to the end pieces of bedsteads whereby a very durable and elastic bed bottom is obtained, and one which may be constructed at a comparatively moderate cost.

BEVEL.—Leonard D. Howard, St. Johnsberg, Vt.—This invention relates to a new and useful improvement in jointed bevels and it consists in having the screw and thumb nut arranged or applied in such a manner that the head of the screw and the thumb nut will secure the blade to the handle or stock, and will be flush with the rules of the latter.

PARASOL AND UMBRELLA RUNNER.—Henry Kursh, Brooklyn, N. Y.—This invention relates to a new manner of arranging the fastening of the sheet metal runners of umbrella or parasol frames, so that the central stick will not be weakened by slots or recesses cut into it as by the ordinary method.

ANIMAL TRAP.—Jeremiah Schroy, Fort Ville, Ind.—This invention consists in an arrangement whereby the animal is forced with a box by a revolving door which is actuated by a spring and which is released by the weight of the animal.

ICE PITCHER.—Nathan Lawrence, Taunton, Mass.—This invention relates to a new and useful improvement in double walled or ice pitchers, such as are constructed of white metal and most generally plated. Hitherto these pitchers have had their inner wall or lining constructed with a bottom connected to the body or main portion by means of solder and these bottoms would very frequently become detached or be parted at their joints or seams so as to leak owing to the throwing of large lumps of ice into the pitcher. This invention is designed to obviate this difficulty and to this end I construct the inner wall or lining with a seamless bottom and also strengthen the same by means of ribs or with a "backing" whereby the difficulty above mentioned is avoided.

COMBINED TOOL.—B. W. Collier, Oxford, Miss.—This invention combines in one instrument a pair of pliers, a pair of clippers, a burnisher, a hammer, several punches, three or four wrenches, a saw set, a screw driver, a scraper and a set of holes for straightening wire, nails, etc.

ENGRAVING MACHINE.—John C. Guentant and Benton J. Field, Leaksville, N. C.—This is an improvement on the engraving machine patented by the same parties Dec. 12, 1866, and numbered 60,506.

GASOLINE COOK STOVE.—Jacob D. Spang, Dayton, Ohio.—This invention consists of a simple device for utilizing and diffusing uniformly the heat from gasoline burners, for the purposes of cooking.

FURNACE.—David Hargar, Des Moines, Iowa.—This invention is for the purpose of conducting air from a pan, or from any cold air region, to a furnace or grate, and distributing it properly to the fire.

MACHINE FOR MAKING PAPER BAGS AND ENVELOPES.—E. B. Olmsted, Washington, D. C.—In this invention the machine is fed from a roll of paper, which it cuts into suitable pieces for bags or envelopes of any desired size and shape, gums, folds, prints, or stamps, and having united the edges firmly, delivers in perfect condition for immediate use.

WAGON BRAKE.—Thomas Smith, California, Mo.—This invention has for its object to furnish an improved manner of attaching the brake block to the brake bar, which shall be cheap, simple, durable and effective.

SELF CLEARING ANCHOR.—W. J. Armstrong and Charles Browne, Brooklyn, N. Y.—This invention has for its object to furnish an improved anchor, strong, durable, and simple in construction, and which shall be so constructed as to clear itself should it become fouled.

COMPOSITION FOR TEMPERING STEEL.—F. G. Harris, Willsborough, N. Y.—This invention has for its object to furnish an improved composition for tempering steel, which will give it a better temper, greater toughness, elasticity, and hardness without brittleness, than any of the compounds now in use for this purpose.

DEVICE FOR STAMPING AND SHAPING LEATHER.—B. B. Harris, Lockport, Ill.—This invention relates to an improved device for stamping and shaping leather, and consists in a combination of toggle joints, levers, springs, follower, dies, and knife.

GATE LATCH.—Alfred K. Davis, Carey, Ohio.—This invention relates to an improved gate latch, and consists of two bars pivoted on an upright secured to the gate post or upon the gate itself, the bars being attached at one end to another upright or connecting bar, operated by a lever similarly pivoted or attached; or where the latch bars are pivoted to the gate post, then pivoted upon an upright or ear attached at the top of the gate post. The free ends of the latch bars hold the gate by extending over the front vertical bar thereof.

HORSESHOE.—Jacob Wheeler, Huntington, Ind.—This invention relates to an improved form of horseshoe, its object being to expand the hoof when hoofbound or the heel is contracted.

GATE.—S. M. Scothorn, Findley, Ohio.—This invention relates to an improvement in gates, and belongs to that class of double-slide gates in which the extension gate slides in the main gate.

CLEAT CHOOKS.—Amariah Lake, Smith's Landing, N. J.—This invention consists in an improved chook in which the cleat or cair is beaded. The chook, which may be made of wood or metal (the latter being preferred), is made in the form of a frame having a beveled or grooved edge the ends of which are returned down to clamp the timber or stanchion.

WASHING MACHINE.—Joseph Bevis, Putnam, Ohio.—This invention has for its object to furnish a convenient and effective washing machine, by means of which the clothes may be washed quickly and thoroughly without friction or wear.

PESSARY.—M. J. Rhees, M. D., Mount Holly N. J.—This pessary is to be used as a support and covering to the mouth of the uterus in cases of female weakness, falling of the womb, etc.

COMBINED DOOR FASTENER AND POCKET KNIFE.—Benj. F. Porter, Manchester, N. H.—This invention consists in the combination with an ordinary pocket knife, of a device suitable for use as a fastener for doors.

RAIL JOINT CLAMP.—Francis Pidgeon, Saugerties, N. Y.—This invention consists in the use of a dovetail shaped clamp, thereby dispensing with all bolts and allowing the rail to contract or expand by heat or cold; also in bringing the weight of the train when passing over the joint to and upon the flat bottom of the rail, by carrying the clamp upon the outside of the rail up even with the top of the rail.

TABLE CUTLERY.—Matthew Chapman, Greenfield, Mass.—By this invention the blade, bolster, tong, and handle are all made of or forged from one and the same piece of steel, whereby a most durable, serviceable, and desirable piece of table cutlery is produced.

LAST.—Ambrose Taylor, Osawatome, Kansas.—The object of the present invention is to provide some simple device as a fastening for the block to the last, whether the last be in use or not and which can be released or unfastened in the most ready and simple manner.

SUPPORTER.—J. B. Seelye, Philadelphia, Pa.—The present invention relates to an abdominal supporter consisting of two front parts, hinged, pivoted, or swiveled to the ends of spring bands, for encircling the hips of the person, the whole supporter being made of hard vulcanized india rubber or gutta percha.

FASTENING FOR THE FLY FRONTS OF PANTALOONS.—Isaac Stratton, Keene, N. H.—This invention consists in a device for fastening the lower part of the fly fronts of men's and boy's pantaloons, instead of employing buttons for the purpose, and is intended especially for the convenience of aged and other infirm persons whose fingers are disabled or crippled, and cannot button and unbutton with facility, and also for boys,

SADDLE.—Godfrey Marshall, Indiana, Pa.—This invention relates to the saddles of harness more particularly, and consists in making the top or frame to the saddle in one piece, having a raised flange or laps around its sides or edges upon its back or under side, and between such laps placing the cushion or pad made of the proper shape and provided with screw nuts, in proper position for receiving the tenet rings, screw sharps and other screw bolts, by means of which the pad is secured to the frame, at the same time also fastening the saddle straps.

HEAD REST.—Robert Hale, Chicago, Ill.—This invention relates to an adjustable head supporter, for use more particularly on railway cars while traveling, the particular object being to provide a supporter of such construction that rest and sleep can be obtained while traveling, while at the same time the supporter is portable, simple, and cheap in construction.

WAGON REACH.—Zenas Plumb, De Witt, Iowa.—This invention relates to an improvement in the construction of a wagon reach, either single or double, and consists in applying a swivel to it in such a manner that the fore and hind axles of a wagon or other vehicle can rock out of the level independently of each other when either wheel falls into a rut or strikes a stone or other obstruction, whereby all twisting or wrenching of the reach is prevented and injury thereof is avoided.

ADJUSTABLE ROTARY LOOM CAM.—Ransom Sargent, Norwich, Vt.—This invention relates to a new and useful rotary cam for making the treddles of a loom to spring the web, and consists of a series of disks or circular trucks attached to a series of shafts which have their bearings in plates or heads secured to a central shaft, the trucks of the shafts set on pins to be movable and adjustable on their shafts in such manner that any one or more may be made to engage with cams or corresponding treadles, for working the treadles and springing the web to suit the pattern of the cloth to be woven.

PIVOT GAGE, STAFF AND FRAME FOR MILLSTONES.—Walter Ring, Gosport, Ind. Patented Oct. 29, 1867.—This invention relates to a device for gaging and stuffing or leveling millstones accurately and plumbing the spindle truly, by which this important part of a miller's work may be performed readily and perfectly by anyone, even the most unskillful, with absolute certainty.

SHUTTLE.—George S. Crandal, Pitcher, N. Y. Patented Oct. 29, 1867.—This invention relates to devices attached to and connected with an ordinary weaving shuttle, for the purpose of regulating the filling during the operation of weaving as it runs from the spool to the eye of the shuttle, and also threading the shuttle with greater facility than in the old way.

MODE OF REGULATING A POSITIVE TENSION OF RUBBER THREADS IN ELASTIC FABRIC LOOMS.—F. Painter, East Hampton, Mass. Patented Oct. 29, 1867.—This invention relates to a new and useful improvement in looms for weaving elastic fabrics of vulcanized rubber threads, and consists in an arrangement of mechanical devices for stretching the rubber threads and holding them at a certain positive degree of tension while the fabrics woven.

FASTENING FOR AX AND OTHER HANDLES.—James Stewart, Money Creek, Minn. Patented Oct. 29, 1867.—The object of this invention is to fasten helves or handles in axes, picks, hammers, etc., for the purpose of securing them firmly and permanently in the eye.

FLOUR COOLER AND CONDENSER.—John Gray, Dubuque, Iowa. Patented Oct. 29, 1867.—This invention relates to a new and useful improvement in apparatus for cooling flour and the stones of a mill when grinding, and condensing the moist vapors or steam which are generated in the process of grinding grain.

BLIND HINGE AND FASTENER COMBINED.—Nathaniel B. Spooner, Plymouth, Mass. Patented Oct. 29, 1867.—This invention relates to a new and improved device for hanging window blinds or shutters, by which they are fastened when either opened or closed automatically; it is simple and cheap.

CHILD'S CRADLE.—D. A. Dunham, Palatka, Fla. Patented Oct. 29, 1867.—The design of this invention is to make a cheap and convenient child's cradle of a flour or other light and clean staved barrel, by cutting out a portion of the staves and supporting those which are left to form the cradle with the hoops.

UMBRELLA.—Wm. Money, Paterson, N. J. Patented Oct. 29, 1867.—This invention relates to a new and improved device for holding umbrellas or parasols in place on the handle, whether raised or lowered, and allowing them also to be raised and lowered easily.

Answers to Correspondents.

CORRESPONDENTS who expect to receive answers to their letters must, in all cases, sign their names. We have a right to know those who seek information from us; besides, as sometimes happens, we may prefer to address the correspondent by mail.

SPECIAL NOTE.—This column is designed for the general interest and instruction of our readers, not for gratifying the curiosity of a purely business or personal nature. We will publish such inquiries, however, when paid for as advertisements at 50 cents a line, under the head of "Business and Personal."

All reference to back numbers should be by volume and page.

L. C., of Mass.—Cast nails of composition (brass) have been extensively used for boat building and ship building purposes. We have seen them from the size of an ordinary shingle nail up to large spikes. The cast metal is sufficiently tenacious for the purpose.

G. W. F., of Pa.—We know of no better method of razing or trueing a grindstone than cutting circumferential grooves in its face with a file tang and then using a bar of soft iron, as nail rod, to remove the intervening substance.

P. J., of N. Y.—Pen nibs made from the goose quill to be used in a handle, as steel pens, were manufactured in Taunton, Mass., at least twenty years ago. We have some specimens now on hand. They were never very popular.

S. A. M., of Oregon.—According to Bishop's History of American Manufactures, saw mills were used in Massachusetts before they were employed in England. The first mill was erected in the colony in 1633. In England it met with determined opposition, and as late as 1767 one was destroyed by the populace.

Q. A. C., of Ohio.—"Will not a belt slip on a smooth iron pulley sooner than on a rough one? Please give your opinion." Our opinion has been given on this subject before. The general practice of builders and operators of machinery should be a sufficient reply. All pulleys are now made with perfectly smooth faces. The reason is obvious: the larger the surface presented to the belt, of course the greater its adhesion. We remember when for lathe cones nothing but wood was believed to be sufficient, and the faces of the pulleys must be circumferentially scored. Now they are made of iron and polished.

C. G. H., of N. Y.—"How can I prevent stovepipe from rusting while not in constant use?" Heat it and coat it inside and out with paraffine, or with asphaltum dissolved in spirits of turpentine; then keep it in a dry place.

H. V. P., of Ohio, asks how he can mend rubber boots that have cracked. He has tried common rubber, melted, without effect. There is a rubber cement sold almost everywhere which will do the business. Directions accompany each box or can. Pure rubber for the purpose may be dissolved in petroleum benzole. The boots should be perfectly dry and warmed.

R. S., of Ohio wants to know how to get the bright blue which is seen on fire-arms, etc. The process is simply heating the piece to be blued in a clear charcoal fire until the requisite color is obtained, and then covering it with dry ashes. The article to be blued should be highly polished and clean.

J. H. H., of Conn.—Your request that we should write on the incompetency of so-called engineers as one of the reasons for boiler explosions, has already been complied with in several articles. The remedy is beyond our influence. Legislative interference or boiler insurance companies can alone alleviate the evil. We do not propose to harp continually a subject which is already trite.

H. K., of Wis., describes a "hair snake" which he found, and seems to suppose it to be a veritable horse hair. It gave the same sound, when stretched and vibrated, as a hair would under the same circumstances. If he will refer to page 280, in No. 18, current volume, he will find a sufficient reply.

J. M. T., of Minn., thinks a "direct-acting—overshot or breast—wheel, may give better results than any turbine. His plan is to confine the water in the bucket until the pressure of the column from above is cut off and transferred to the succeeding bucket. There will be no chance for back pressure, and after performing their work the buckets are withdrawn so as to be out of the reach of back water until wanted again. This wheel would discharge water only with the motion of the wheel, while others discharge one-fifth or more faster than the motion of the wheel." This appears to be a modification of the automatic bucket wheel. If properly constructed it may be a success.

J. E. R., of N. Y., inquires how to "cut gutta-percha and india-rubber so that it becomes a liquid." Probably our correspondent means by "cutting" dissolving. The solvent for gutta-percha is coal-tar benzole, and for india-rubber benzole of petroleum. India-rubber is "cut" by knives revolving or working in water.

G. H. M., of N. Y., asks "what is the greatest distance to which steam and hand engines have thrown a stream of water." We cannot give a decisive reply, but we have seen a solid stream thrown 230 feet. Makers of fire engines would be better authorities.

G. W. M., Ohio.—"Do you know of a cement to stop up stove joints which will harden in time or by heat?" Pipe clay and clean sand equal parts; wood ashes and salt; or iron filings and sal-ammoniac. Either mixed with water will make a proper cement.

A. D., of Pa.—"Can black wool be bleached or dyed white?" No. The only dyeing of white we are aware of is in silk. The pearl white of silk is produced by dyeing; the silk in its natural state being of a pale yellow color and incapable of being bleached.

H. F., of Conn., wishes to convey water from a dam through 40 feet of 20-inch pipe to a flume to supply a turbine, and asks if cement pipe will answer. In reply we would say that we see no reason why the cement pipe will not do, as there is but ten feet of head or fall. It is used for aqueduct purposes with success. A good pipe may be made of pine plank built in the form of a tube and hooped with iron. This is excellent where the diameter exceeds 30 inches. But probably the best form of wooden tube is that patented by J. K. Mayo, composed of spiral veneers. A two-foot tube on this plan 3/4 of an inch thick has successfully resisted a hydraulic pressure of 110 pounds to the square inch.

Business and Personal.

The charge for insertion under this head is 50 cents a line.

A metal-working shop, with two patents, for sale or exchange for Real Estate in city or country. Townsend & Sears, 218 Fulton st., room 7. Manufacturers of Portable Saw Mills and Engines please send circulars and cash prices immediately. Address J. J. Howell, Avon, Ill.

For sale low—the patent right of an improved Tag Holder—best out. Address A. Grushus, St. Paul, Minn.

Wanted—a Horizontal Face Plate Boring and Turning Lathe to swing 8 or 9 feet, new or second-hand. Address, with description and price list, T. H. Risdon, Mt. Holly, N. J.

Smith's Brick Machine.—This invention, which was illustrated on page 280 is further described and advertised in another column. See last page of this paper.

J. A. Althouze, New Harmony, Ind., wishes the address of Scissors Manufacturers.

Manufacturers of Loom Shuttles please send their address to Geo. L. Crandal, Pitcher, N. Y.

Wanted—by a thorough practical and licensed Engineer, who is a practical machinist and draftsman, and who uses no intoxicating drinks, a position as chief or assistant, either of a marine or stationary engine. Address Engineer, Adams' Express office, Georgetown, D. C.

A. Leize & Co., Reading, Pa., wish to correspond with Manufacturers of Machines to Saw, Plain, and Joint Barrel Staves.

For Sale Cheap—A Knee-Joint Press, of great Power, for Compressing Bale Cotton, etc. It can be worked by horse or other power, or by hand. Can be seen at Riverdale Mills, Mamaroneck, N. Y. John McDonald, Box 8 1/2, Mamaroneck, N. Y.

Makers of Machines for Packing Fine-Cut Tobacco in Paper and Foil. Send address to Baird & Tuley, 61 East st., Louisville, Ky.

Wanted—The address of the "Diamond Annular Drill Company." Lewis B. Tebbets, Baltimore.

Wanted—A Manufacturer for my non-conducting illuminated base chimney burner, suitable for Benzine, or any light Petroleum oils, or fluid. Penrose Chapman, Box 145, Brunswick, Me.

Rights for Sale, of Browne's Patent Extension Cabinets for Sewing Machines. J. D. Browne, 177 West Second st., Cincinnati, Ohio.

EXTENSION NOTICES.

George E. Burt, of Harvard, Mass., having petitioned for the extension of a patent granted to him the 7th day of February, 1854, for an improvement in Machines for cleaning and assorting bristles, for seven years from the expiration of said patent, which takes place on the 7th day of February, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day of January next.

William Burnett, of San Francisco, Cal., and John Absterdam, of New York City, having petitioned for the extension of a patent granted to them the 28th day of February, 1854, for an improvement in the use of fusible disks in steam boilers, for seven years from the expiration of said patent, which takes place on the 28th day of February, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 10th day of February next.

James McCarty, of Reading, Pa., having petitioned for the extension of a patent granted to him the 31st day of January, 1854, for an improvement in rollers for scarfing the edges of skelps for lap-welded tubes, for seven years from the expiration of said patent, which takes place on the 31st day of January, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 13th day of January next.

Inventions Patented in England by Americans.

[Condensed from the "Journal of the Commissioners of Patents."]

PROVISIONAL PROTECTION FOR SIX MONTHS.

- 2,578.—ANVIL.—James E. Emerson, Trenton, N. J. Sept. 11, 1867.
- 2,728.—HAT-LOCKING MACHINE.—Julius Sheldon, New York City. Sept. 27, 1867.
- 2,739.—RAILWAY WHEEL.—Cornelius Kingsland, McKees Port, Pa. Sept. 28, 1867.
- 2,742.—MANUFACTURE OF HATS, AND MACHINES FOR PRODUCING THE SAME.—Henry Killogg, New Haven, Conn. Sept. 28, 1867.
- 2,746.—LUBRICATING PACKING.—Thomas Silver, New York City. Sept. 28, 1867.
- 2,779.—MACHINERY FOR SEWING BOOTS AND SHOES.—Augustus Destouy and Frederic Renaud, New York City. Oct. 2, 1867.
- 2,785.—TREATMENT OF COTTON AND OTHER FIBROUS MATERIALS USED IN DENTISTRY.—John A. McClelland, Louisville, Ky. Oct. 3, 1867.
- 2,799.—MACHINERY FOR THE MANUFACTURE OF BRAID.—George Reiffuss Philadelphia, Pa. Oct. 4, 1867.
- 2,879.—ELECTRIC TELEGRAPH APPARATUS.—Elisha Gray, Oberlin, Ohio Oct. 14, 1867.