

NEW INVENTIONS.

The following are some of the most prominent of the patents issued this week, with the names of the patentees:—

THREADING SEWING-MACHINE NEEDLES.—M. B. FOOTE, Northampton, Mass.—This invention relates to an extremely useful implement for the threading of sewing-machine needles, whereby they can be threaded with the utmost ease, facility and rapidity.

STREET LANTERN.—A. R. and E. A. HENRY, Newark, N. J.—This invention consists in forming the supporting frame of a street lantern, for the glass, of cast-iron, and in such a manner that the several parts of the same can be either secured together or taken apart, in a most expeditious manner, and when together, be sufficiently firm and strong for all practical purposes.

VENTILATOR AND PUMP.—J. W. FOARD, San Francisco, Cal.—This instrument is for the production of a partial vacuum by means of a current of air being passed through it, and whereby air or water, as the case may be, may be raised as by means of a suction pump, this instrument constituting a ventilator for the ventilation of ships and other like vessels, chimneys, houses, mines and other places, as also a pump for raising water.

STOVEPIPE ELBOW.—JAMES WILSON, Wilmington, Del.—This invention has for its object to furnish an improved stovepipe elbow, which when choked up by burning soft coal or other soot producing fuel, can be readily cleaned and the soot removed.

ROTARY CUTTING MACHINE.—J. J. BUTLER, Cincinnati, Ohio.—The object of this invention is to so construct a machine that disks of any material may be rapidly cut in the same.

PINS.—R. J. NUNN, Savannah, Ga.—The object of this invention is to construct a pin for securing together parts of garments and other articles in such manner that it will not be so liable to casually slip out of place as the ordinary style of pins.

FORGE ROLLING MACHINE.—HUGH BAINES, Manchester, England.—This invention consists of a perforated movable table and two or more hollow and perforated rollers, having sectional perforated and engraved rings fitting around the same. These rings are made so as to be easily removed and changed, to forge and roll different kinds of work, according to the patterns engraved, cast or otherwise properly secured upon the rings. The rollers and table are supported by a strong and suitable frame, and worked by reversible gearing or straps.

COMBINED LUMBER PLANING, SAWING, AND TONGUING AND GROOVING MACHINE.—OTIS BRIDGEMAN, Steuben, N. Y.—This invention consists in combining in one and the same machine, a revolving cutter head for planing, a circular saw for sawing, and suitable revolving cutter heads for tonguing and grooving, in such manner, and in such positions with regard to each other, that by properly feeding the lumber into the machine at one end, will be in turn subjected to the action of the respective parts of the same, one after another, in the order above mentioned, so that when it passes out of the machine at the opposite end, the board will have been planed, sawed, tongued upon one edge and grooved upon the other, and thus ready for use.

ARTIFICIAL BREASTS.—JOHN STADERMANN, New York City, and HENRY SAUERBIER, Newark, N. J.—This invention consists in constructing artificial breasts out of wire cloth or wire gauze, swaged or struck up by dies, or other suitable means, in such a manner that the two breasts will form projections on one and the same piece of wire cloth made to conform to the chest of the wearer.

DRYING APPARATUS.—G. D. JONES, New York City.—This invention relates to a new and improved apparatus or device for drying substances, and is more especially designed for drying earthy materials used in the arts which are ground in water or are rendered plastic or tempered in the same, such, for instance, as whitening, clay, etc.

COTTON GIN.—F. M. MCMERKIN, Morrison's Mills, Florida.—This invention relates to a new and useful improvement in that class of cotton gins in which rollers are employed for separating the lint or fiber from the seed, and which are commonly termed "roller gins," and has for its object the thorough and rapid separation of the lint or fiber from the seed without injuring or breaking the former.

HEAD BLOCK FOR SAWMILLS.—B. F. MCKINLEY, Cincinnati, Ohio.—This invention relates to a new and improved head block for sawmills, and it consists in a novel means employed for operating or moving the knee, whereby the log is set to be sawed, and by which the log may be set with accuracy and so as to cause the log to be sawed into boards or planks of varying thicknesses, as may be required.

LEVELING OR GRADING INSTRUMENT.—S. L. DONNELL, Spring Creek, Tenn.—This invention relates to improvements in a leveling or grading instrument, and secured to by Letters Patent bearing date September, 11, A. D. 1860, and it consists in a novel arrangement and construction of the leveling or grading instrument, whereby simplicity and efficiency are secured and the instrument also susceptible of a much easier and a more ready adjustment of its several parts, as may be desired or found necessary.

BALING PRESS.—G. D. HOWE, Lewisport, Ky.—This invention has for its object to furnish a baling press by means of which two bales may be pressed at the same time, and which may be built and operated in a less space than is required for the presses now in use.

CIRCULAR SAW MILL.—J. A. HOLFORD, Guilonsville Ind.—This invention relates to certain improvements in circular saw mills, by which the whole machine will work automatically in all its parts, and by which a log when placed upon the carriage, is cut into boards of the requisite thickness without requiring the constant attention from any man.

STUMP EXTRACTOR.—N. M. HEALT, Finshing Mich.—This invention consists in so arranging an upright hoisting bar and levers on an upright frame, and operating them by chains and ropes that a very great lifting power shall be imparted to the

bar, thereby enabling one to extract stumps from the ground in a cheap and simple manner.

SPRING TOY.—JOHN H. BROWN, New York City.—This invention relates to a spring toy which is operated by means of a spiral or tension spring in contradistinction to the coiled spring heretofore used. One end of this spiral spring is connected to a cord which winds on a drum provided with a ratchet wheel and pawl in such a manner that by turning said drum the tension of the spring can be regulated at pleasure. The opposite end of the spring connects to a lever which is rigidly attached to the body of the horse, and which is provided with two or more holes to receive the spring in such a manner that by changing the point of connection between said spring and lever the leverage of the spring can be accommodated to the greater or smaller weight of the child occupying the toy. By the use of said lever the hind legs are relieved from all strain, and a strong and durable toy is obtained.

GRINDING MILL.—JOHN M. MILLER, Hamilton, Ohio.—This invention consists in the arrangement of a suction blower in combination with the case inclosing the millstones of a grinding mill, and with a suitable receiver in such a manner that by the action of said suction blower the dirt, flower, vapor, and hot air created by the action of the grinders are removed and the grinders enabled to work free and without danger of heating. Suitable slides in the case serve to regulate the power of the draft created by the suction blower, and the receiving box into which the dust, vapor, etc., are driven, is provided with an escape opening for the wind.

CAST-IRON CHAIN PULLEY.—JAMES BIRD, New York City.—The object of this invention is to construct chain pulleys in such a way that they will be more enduring and better able to resist the wear to which they are subjected.

TWEER IRON.—T. E. C. BRINLEY, Louisville, Ky.—This invention consists in the combination of hooks secured to the cap of a tweer iron with lugs or ears secured to the side of the body or chamber of the tweer so that the cap may be readily removed in order that access may be had to the interior of the air chamber for the purpose of removing the cinders that may have collected there.

BRICK MACHINE.—WILLIAM C. BARTOL, Huntingdon, Pa.—This invention consists in an improved brick machine so constructed and arranged that the empty molds may be raised automatically from the lower to the upper part of the machine and lowered, passed beneath the hopper, filled, and passed out upon shelves at the other end of the machine ready for removal to the drying floor, while the machine is being drawn back and forth between the clay pit and drying floor.

SLED BRAKE.—R. B. DUTTON, Iron Hill, Iowa.—This invention consists principally in the combination and arrangement of the jointed dog clasp, lever, fulcrum rod, ratchet bar, and spring with each other and with the rave and runner of the sled.

JEWELING WATCHES.—A. C. CROSBY, Union, Pa.—This invention is designed to facilitate the setting of jewels in watch plates by avoiding the comparatively tedious burnishing operation and forming the burr over the jewel at a single operation.

BRACES FOR WAGON SPRINGS.—JAMES H. LOCKIE, Humphrey, N. Y.—This invention has for its object to prevent the backward and forward swaying and the consequent twisting and breaking of wagon, carriage, and buggy springs.

ROLL CARDING MACHINE.—GEORGE BRUCE, Corydon, Ind.—This invention principally consists in the simplicity and novelty of the feed works, they being so constructed as to be nearly automatic in their operation of spreading and feeding the wool from the apron to the machine, and to require but little aid or assistance.

PROPELLING HORSE.—JOHN H. BROWN, New York City.—This invention relates to a propelling horse, the front wheel of which is placed out of the center so that by its action the canting motion of a horse is imitated. The hind wheels are rigidly attached to a double crank shaft and the cranks connect with two hand levers in such a manner that by the action of each hand lever the tractive power of both wheels is utilized and the horse can be propelled with considerable speed. The hand levers pass through the body of the horse, which also includes the connecting rods and cranks, so that the propelling mechanism does not interfere with the child's limbs or clothes.

WASHING MACHINE.—E. BECKWITH, Smith Pass, Ill.—The object of this invention is to provide a machine by which fabrics may be washed easily and in the most perfect manner and without injury.

MANNER OF ATTACHING HANDLES TO TEAPOTS AND OTHER VESSELS.—JOHN H. BROWN, New York City.—This invention has for its object the attachment of handles to teapots or other vessels of similar nature in such a manner that the said handle can be freely turned on its bearings, while the pot is standing, but as soon as suspended on the handle it will not be able to swing free.

CIRCULAR SAWING MACHINE.—LEWIS FOSSEE, Jeffersonville, Ind.—This invention consists in devices to operate in connection with a circular saw for sawing plank with beveled edges or with curved edges or sides when required, as well as straight edges and sides. The machine is particularly designed for use in ship yards for edging plank of all kinds, and sawing in curved lines and outzags, so that bottom plank of vessels may be finished upon the circular-saw table.

OIL CAN.—WILLIAM C. NEWKIRE, Piqua, Ohio.—This invention consists in constructing an oil can in such a manner that coal oil and other oils or liquids of like nature can be handled and used without the disagreeable necessity of soiling every spot where the oil can is placed, as is almost invariably the case with the common oil can.

CORSET.—MRS. CLEMENTINE D. RUTHERFORD, Brooklyn, N. Y.—The object of the present invention is to so construct and form the corset, that while sufficient support is imparted by it to the waist and form of the person by whom it is worn, yet it will be comfortable and cool to the wearer; such corsets being especially adapted for use during the summer season.

CORN PLANTER.—J. G. WALKINSHAW, Leavenworth, Kansas.—This invention relates to improvements in the construction of

an implement for planting corn, and consists of devices for dropping the corn evenly in hills at regular distances apart, in connection with an arrangement for dropping at the same time either a small quantity of guano or other similar fertilizing material, or planting beans with corn.

SPRING BOTTOM FOR SEATS, ETC.—WM. J. HASWELL, Waverly, N. Y.—This invention relates to a bedstead or other frame, the side and end pieces of which are slotted and provided with a series of rollers. Over these rollers are drawn a series of straps which connect at their upper ends with a piece of canvas or other suitable flexible material, and at their lower ends with springs retained by rods which extend along the lower edges of the side and end pieces of the bedstead, being retained by suitable buttons. By these means a bottom for beds, chairs, sofas, etc., is obtained, the tension of which can be easily regulated, and which is free to accommodate itself to the form of the body.

STEAM VALVE.—G. G. HUNT, Bridgeport, Conn.—This invention has for its object the construction of a valve in such a manner that it will serve as a perfect regulator as regards the admission of steam to the cylinder of an engine, and admit of the governor operating perfectly to regulate the admission of steam, when applied to an engine of any size and power.

COAL SCUTTLE.—EDGAR ELTINGE, Kingston, N. Y.—This invention relates to an improvement in the construction of coal scuttles, and it consists substantially in providing them with self-adjusting covers or shields, having on their sides flanges that extend over and outside the edges of the scuttles, as low as desirable, for the purpose of controlling and guiding the coal or other contents of the scuttles to the place of discharge, preventing it from piling over the sides of the scuttles. The covers or shields are hinged to ears which also hold the ends of the balls.

WATER WHEEL.—SAMUEL HICKS, Orangeville, Ind.—This invention relates to a new and useful improvement in that class of water wheels which are placed on a vertical shaft, and are commonly termed horizontal water wheels. The invention consists in a novel manner of constructing the wheel and the scroll, and arranging said parts within a penstock, whereby a very simple, economical, and efficient wheel is obtained, one which will give out a large per centage of the power of the water, and will operate favorably in back water.

SCHOOL AND FAMILY SLATE.—JOHN H. FRENCH, Geddes, N. Y.—This invention relates to a slate, the frame of which is made in two compartments, one of which contains a slate, while the other is so constructed as to admit of the insertion of any convenient number of cards of pasteboard, paper or other material, upon which are printed, drawn, painted, or photographed lessons or copies for writing, printing, marking, or drawing, and exercises in arithmetic, either, any, or all combined in such a manner that the pupil is enabled to copy the lessons upon the slate in the other part of the frame below, and that he has a great variety of exercises always in convenient reach. The operation of copying the lessons is materially facilitated by horizontal, perpendicular, or slope lines, permanently pressed, drawn, marked, stamped, printed, ruled, or cut upon a part or the whole of one or both surfaces of the slate as guide lines, whereby the pupil is enabled to make his letters, figure, or drawings of the proper proportionate heights, widths, and slope.

SELF-REGULATING TENSION.—THEODORE ZINCK, New York City.—This invention relates to a tension, which is applicable to the thread of sewing machines or to ropes, telegraph cables, or other strands which are wound off from a bobbin, and the tension of which is to be kept as nearly as possible uniform. Said tension consists of a friction spring bearing on the bobbin from which the thread or strand is to be unwound, in combination with an arm which is secured to the spring, and over which the thread or strand passes, in such a manner that whenever, from any cause whatever, the tension of said strand increases, the friction spring is forced back and the bobbin is relieved, and by those means the tension is equalized and rendered self-regulating.

PISTON PACKING.—BARKER LOWE, Fall River, Mass.—This invention relates to a piston packing in which a spiral spring is used, which is beveled off from the center toward both ends, so that the operation of inserting the spring in its place is facilitated. The rings which surround the spring are so formed that they in case the head and follower of the piston, and they are provided with an internal flange which is surfaced to the inner surface of the head or follower, in such a manner that the escape of steam is prevented, and the head and follower are not allowed to come in contact with the cylinder.

Business and Personal.

D. W. Johnson, 469 Broadway, wishes a good second hand hydraulic press, of three to four hundred tons.

J. J. Detwiler, Easton, Pa., wants market for large quantities of kaolin or china clay.

V. H. Lyon, Plainfield, Ind., wishes to obtain one of Powell & Lealand's Microscopes, described in Vol. 12 SCIENTIFIC AMERICAN.

Information upon enameling cast iron is requested by Jno. B. Overton, Frederick, Md.

J. E. Treat, Oxford, Mich., wants to become an engraver; wants to put himself under the instructions of an engraver; wants the address of all glyptographic engravers; also wants the address of all engravers generally.

Where he can learn Scientific farming is asked by J. E. Peaslee, Dover, N. H.

W. S. T. wants to purchase the best Peat Machine, and thinks that if owners of such machines would advertise in the SCIENTIFIC AMERICAN, they would find it to their advantage.

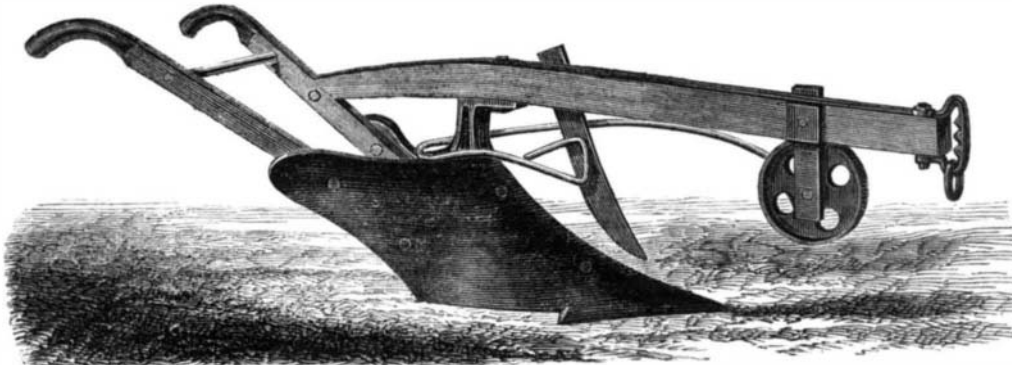
Makers of Morrison's Shingle Machine, please address, H. P. Guilford, Reading, Mass.

Device for Clearing Stubble from Plows.

In using the ordinary plow, especially on stubble fields, or in heavy grass land, the angle between the colter and beam frequently becomes choked to such an extent as to raise the share from its proper depth, and necessitate stopping the team and removing the obstacle by hand. In the accompanying engraving there is represented a very simple contrivance designed to remedy this difficulty.

In the guide wheel is placed a stud or pin, which forms a crank, and to this pin is pivoted the end of a rod of iron, which is carried along under the beam and around the lug of the share to the colter, as seen in the engraving. As the guide wheel rotates, a reciprocating with a vertical motion is given to this vibrating rod, so that as the rod advances to the front of the colter edge it pushes the stubble from the blade and throws it down into the furrow.

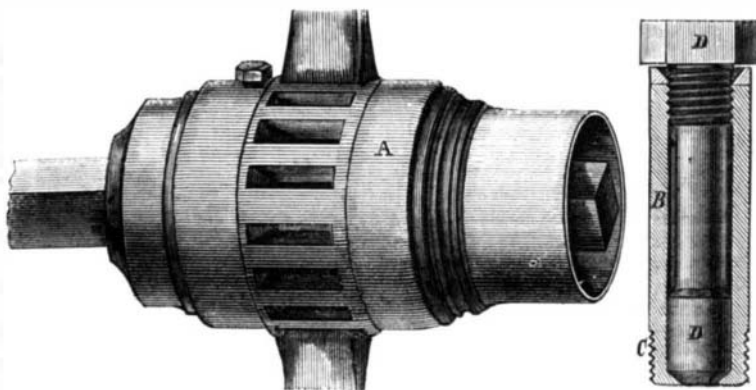
Patented through the Scientific American Patent Agency, September 25, 1866, by William Veber, Jr., Shingle Creek, St. Lawrence Co., New York, whom address for further facts.

**VEBER'S COLTER CLEARER.**

original templates from which they were made, were found to have lost as nearly as possible one-eighth of an inch in the thirty months' use under at least 8,000,000 tons of traffic as computed from the books of the station. The rails were in admirable condition, and good for five times as much further wear, both heads together; making, in insurance phrase, an "expectation of life," equal to fifteen years, or twenty times as long as that of iron.

Coffee and its Adulterations.

The report of the Internal Revenue Commission shows that the usual yearly consumption of coffee in the United States has been about 200 millions of pounds. Allowing the small modicum of one quarter of a pound per week to each person using coffee, it is seen that the number of coffee-drinkers in the whole country can hardly exceed fifteen millions, or less than one half the population. But the consumption of coffee in the four years, 1862-5, averaged only half the usual amount, owing, in great part, to the extensive adulteration compelled by the war prices. Chicory root, peas and rye, are familiar ingredients of artificial coffee; burnt bread-crust is

**PARSONS'S DEVICE FOR LUBRICATING AXLES.**

also a well-known domestic substitute, and the Revenue Commission has revealed the important fact that all kinds of spoiled, condemned, and refuse bread, and especially the surplus stock of stale black bread brought ashore by emigrants from Europe, supply a favorite material for adulterating both coffee and black pepper. Unmerchantable or very inferior sugar and molasses are also collected and reduced to caramel for the purpose of coloring the adulterations of coffee. These de-appetizing considerations will probably send the consumers of ground coffee in a rush to the hardware stores where hand coffee-mills are sold. The properties of the grand ingredient, chicory, if understood according to the medical authorities, would lend additional impulse to the hand-coffee-mill trade. Prof. Johnston says that its prolonged use produces among other

things, heart-burn, loss of appetite, nervous affections, constipation with intermittent diarrhea. A writer in the *Journal of Materia Medica*, gives observations showing its decidedly aperient effect; for which, in fact, it is in domestic use in France and Germany. This tendency, in connection with the presence of cholera, and in view of the free and universal use of the chicory-coffee among the poorer classes, seems to deserve the careful attention of the sanitary authorities.

Life of Steel and Iron Rails.

An examination of the steel rails laid down two years and a half since in the Woodhead tunnel of the Manchester, Sheffield and Lincolnshire railway, resulted in a striking illustration of the relative endurance of steel and iron rails. This tunnel is about

three miles long, with a station at each end, where trains generally stop, and where the wear of the rails is extraordinary, from the starting of heavy trains with the aid of sand on iron constantly wet with drippings from the roof. The life of an iron rail at these stations was but about five months on one head, and three or four months on the other after turning. The new rails are 75 lbs. Bessemer steel, double-headed, 2½ inch face, ¾ inch stem, and 5 inches deep. Rails were taken out at the places of greatest wear, at each end of the tunnel, and on being carefully measured and compared with the

Practical Hints.**To CLEAN A FOUL GUN.**

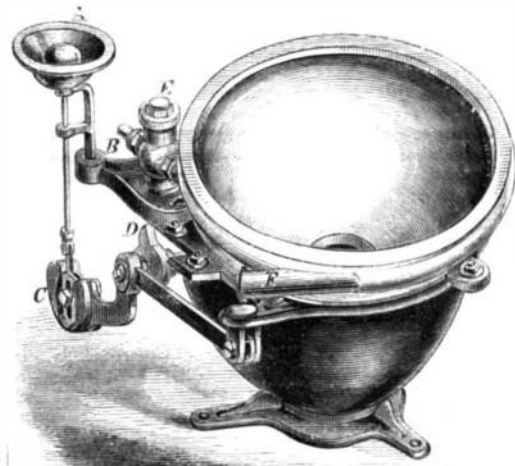
—I hand you the following as a reliable fact—the reason I leave to others. In hunting, a gun often becomes foul from use, and the exploding of a cap will fail to ignite the powder. With a knife sharpen a piece of dry pine wood—or common match wood will answer; drive the splint right into the nipple of the gun, cut off the bruised part of the wood even with the top of the nipple; put on a cap, and it will not fail to

explode the gun. Any one wishing can test this by putting a little powder in his gun, then driving snugly the plug—it will go every time. For a reason.

QUIEN SABLE.

WELLINGTON'S PATENT WATER CLOSET.

"Modern Improvements" comprehend all appliances that tend to the convenience and advantage of



man. Among these is the water closet in dwellings and offices. The one herewith illustrated seems to be admirably adapted, from its simplicity, to security against injury, unfailing operation, cleanliness, and freedom from noxious effluvia.

The cup, A, can be raised or lowered to adjust it to any height by a set screw, not shown, in the projection, B, and the pull lengthened or shortened by adjusting the bolt in the slot of the weight, C. The stop, D, prevents turning the pan more than 90 degrees, sufficient to entirely empty it. The water is introduced through the pipe and valve, E, shown as disconnected with the bowl pipe, F. The valve is always, in this closet, directly under the seat and in front, so that it can be reached for repairs without disturbing the wood-work and without disconnecting the supply pipes. No water stands in the pipe between the valve and the bowl, as, immediately after using, the water runs into the receiving pan. The drippings from the couplings also all find their way to the same receptacle, so that there can be no disarrangement of the parts in moving, nor any annoyances from leakage in use. The manufacturers make every part in duplicate, and when repairs are needed, parts can be readily obtained which absolutely fit.

Patented Nov. 15, 1859. Hayden, Gere & Co., 84 Beekman street, New York, are the manufacturers, to whom orders should be addressed. Dalton & Ingersoll, 19 Union street, Boston, Mass., can furnish the closet.