

Frank W. Sterry, Morrisania, N. Y.—This invention relates to a novel compound, whereby fine cut or any other chewing tobacco is sweetened and colored without any dangerous ingredients.

SCAFFOLD BRACKET.—Charles Eddy, Grass Lake, Mich.—This invention consists in providing a bracket designed for scaffolds in shingling or roofing buildings.

REVOLVING HAY ELEVATOR.—Matthew Mitchell, Crown Point, Ind.—This invention consists in the construction of a derrick in such a form as to admit its standing near a haystack, and a revolving upright shaft and levers arranged in such a manner that hay can be elevated easily and expeditiously.

DEVICE FOR HOLDING THE SLATS OF WINDOW BLINDS.—Charles B. Francis, Newark, N. J.—This invention consists in the employment of a slotted bar or lever that has a turn at right angles, and around which a metallic strap passes and is secured to a window blind, in such a manner that the slats of the blind may be held in any desired position.

REAMER.—William Burlingame, Exeter, N. H.—This invention consists in uniting and casting steel cutters with the body of a reamer, so that a large quantity of steel may be saved; also large size taps may be cast in with the threads of steel upon the outside.

FASTENING SLEIGH BELLS.—J. H. Abell, East Hampton, Conn.—This invention consists in the arrangement of a T-shaped, double hook spring catch, in combination with a sleigh bell, provided with a slot or mortise to receive the hook-shaped end of the spring catch, in such a manner that by passing the hooks of the catch through the strap or other material to which the bell is to be fastened, and forcing them into the slot of the bell, they spring apart over the inner edges of said slot, and the bell is firmly held in its place.

SAFETY ATTACHMENT TO CARRIAGES.—Claude Ducruix, New York City.—This invention relates to a new device, whereby a wagon can be instantaneously stopped and the horse detached therefrom in case the latter should try to run away.

COTTON SCRAPER.—Nicholas Gotten, Union Depot, Tenn.—This invention consists in constructing a cotton scraper in such a manner that the scraper may be adjusted to different angles and depths upon the frame as the nature of the work may require.

MANUFACTURE AND TAPPING OF LEAD PIPES.—Frederick Bennett, Watford, England.—This invention applies to lead pipes manufactured by hydraulic pressure, and it consists of not only an improved process of manufacturing lead and composition pipes, but likewise of a new mode of tinning, silver tinning, or coating lead pipes with other non-corrosive metal or composition.

JOINT FOR PIPES.—James Bowden, New York City.—This invention relates to a joint for lead pipes or pipes of any other description, which is composed of two tapering or wedge-shaped thimbles, which are split or made in sections, in combination with a clamping nut screwed on the end of the inner thimble, in such a manner that when the thimbles are properly arranged on the end of a tube and the nut is screwed up, the inner thimble is firmly clamped to the pipe, and a union coupling, or a coupling of any other description, can be readily secured to the end of said inner thimble, and two pieces of lead pipe can be united without soldering or "wiping."

PROCESS FOR GLAZING PAPER.—Frederick Beck, New York City.—This invention consists in treating paper with stearic acid by applying the acid to it and then exposing it to the action of friction surfaces, in such a manner that the surface of the paper is coated with a thin layer of said acid, imparting to it a fine gloss, and rendering it soft, white, and impervious to water.

PAPER FILE.—Joseph Fleischl, New York City.—This invention relates to a paper file which can be used for one single paper or for a number of papers. For the purpose of securing a single paper a segmental cylinder is slipped over the side bar of the paper file and over the paper, so as to hold the paper without injuring it in the least. If two or more papers are to be filed in the paper file, adjustable spring clamps are secured to the side bar of the paper file, and the papers to be filed are held between the springs and the flattened surface of said bar.

WINDOW LATCH.—Ernst T. Hofmann, Poughkeepsie, N. Y.—This invention consists in the arrangement of a spring stop or catch in combination with an ordinary revolving latch, in such a manner that when the said latch is closed, it is securely locked by the spring stop, and it cannot be opened or forced back until said stop or catch is depressed or made to release the latch.

LOCK.—Rudolph Vollschwitz, New York City.—This invention relates to a lock, the mechanism of which is inclosed in a cylindrical case, said mechanism being composed of three (more or less) tumblers, which are provided with slots to admit the key, so that by turning said key the heads of the tumblers arrange themselves in the proper position to allow the tumbler to move in or out. An elastic pad or spring which bears on the ends of said tumblers, has a tendency to keep the same in such a position that their slots coincide to admit the key, and that their heads prevent the bolt from moving, the whole mechanism being so arranged that it takes but little room, and that a safe lock, with a small and convenient key, can be produced at a comparatively small cost.

MACHINE FOR PRESSING PEAT.—N. H. Barber, New York City.—This invention relates to a peat machine composed of a revolving annular cylinder, provided with a number of holes and with a series of plungers which revolve with the cylinder, and move back and forth in the holes by the action of cams, which draw them out to receive the feed and force them in at the proper time for the purpose of compressing the peat while the cylinder is in motion.

MANUFACTURE OF STEEL-HEADED RAILS.—L. M. Hart, Troy, N. Y.—This invention consists, first, in uniting the steel slab with the slab of iron by welding or other means, previous to the operation of rolling, in such a manner that the steel is prevented from scaling off when the rail is ready. It consists, second, in securing the steel slab to the pile by screws or hook bolts, or other means, in such a manner that the steel is prevented from curling during the operation of rolling, and steel-headed rails can be produced which are durable, and from which the steel is not liable to separate itself.

REFINING OIL, ETC.—Max H. Kruger, New York City.—This invention relates to an apparatus which is intended for deodorizing and refining petroleum and other hydrocarbon liquids. It consists of a series of filters which are filled with powdered charcoal or other suitable material, and hung on rods in the interior of a chamber or box which can be filled with steam, in such a manner that the petroleum or other hydrocarbon liquid, while passing through the filtering material, are kept at a sufficiently high temperature to prevent the resinous parts in said oil from choking up the filters, and the operation of filtering can be conducted with ease and facility.

MANUFACTURE OF WOOL FROM PINE LEAVES.—Adolphe Rogue, Briere, France.—This invention relates to a new mode of producing from pine leaves a sort of hygienic wool, capable of replacing to some extent common wool or hair in their various applications, and particularly fit to be employed in certain diseases such as rheumatism, gout, pulmonary affections, neuralgia, and so forth.

CENTERING TOOL.—Nathan Puckett, Terre Haute, Ind.—This invention relates to a novel and convenient device for drilling a center hole accurately in a bar of iron or any piece of timber to be turned in a turning lathe.

RAILROAD FREIGHT CARS.—Richard Eaton, Montreal, Canada.—This improvement relates to the construction of railroad freight cars, and is designed for increasing largely the capacity of a car for carrying freight.

RAILROAD CAR BRAKES.—Charles Bemis, Mishawaka, Md.—This invention relates to a new and improved arrangement of a brake apparatus for railroad cars.

SPRING CRUPPER.—Edward Powell, Spring, Penn.—This improved crupper is provided with a spring supporter which exerts a constant upward pressure under the tail of the horse so as to induce a habit of carrying the tail in a higher and more graceful position.

SAWS.—Asa Bee, White Oak, West Va. (patented January 1st, 1867).—This invention relates to the application of plane-irons or bits to the ordinary mill-saw, for the purpose of removing the roughness or projecting fibre from the face of the plank as the saw passes through the kerf; and the improvement consists in grooving the cutting edge of the plane-iron, the better to adapt it to discharge the cuttings which it removes from the wood.

SPRING HOLDER FOR WIPING CLOTHS.—Patented January 1st, 1867.—Henry Johnson, Chicago, Ill.—This invention consists of an arrangement of spring

fingers, adapted to be furnished with a wet or dry cloth, to be used in cleaning exterior or interior surfaces, dishes, bottles, lamp-chimneys, and other hollow articles, especially those difficult to be reached by the hand and of varying interior diameter.

CULTIVATOR.—J. C. Hoffeditz, Mercersburg, Penn.—The invention consists of a cultivator or marker, having adjustable spring standards and handle, and with shovels, adapted to different kinds of work, or removable for the purpose of adapting the machine to a different class of work. "Rights for all the States except Pennsylvania for sale."

CULTIVATOR TOOTH.—J. C. Hoffeditz, Mercersburg, Penn.—The standard is pivoted in the hanger by a bolt, and is restrained from vibration by a wooden pin, which breaks when the share comes in collision with an immovable obstacle, the standard being replaced in position, after passing the obstacle, and a new pin inserted. "Rights for all the States except Pennsylvania for sale."

BURGLAR ALARM-GUN.—Peter Sinsher, Versailles, Ohio.—This invention relates to an improved compound gun, having several barrels so connected and arranged as to be fired simultaneously in different directions, as a defence against burglars.

SELF-LUBRICATING ATTACHMENT FOR JOURNALS OF MACHINERY.—George M. Morris, Cohoes, N. Y.—This invention relates to an improvement in self-lubricating or oiling apparatus for journals of machinery, and consists in attaching an oil-cup to the journal-box in such manner that any excess of oil flows back into the oil-cup from the journal-box. Thus the journal is kept constantly lubricated; heating is prevented and there is no waste of oil.

COTTON-CLEANING AND RELINTING MACHINE.—Robert J. Clay, New York City.—This invention relates to a machine for cleaning and relinting cotton wool which has been damaged by matting the fibres together and becoming foul with dirt or any extraneous substance.

TRUSS FOR HERNIA.—John A. W. Justi, Savannah, Ga.—This invention consists in the peculiar conformation of the pad-plate, which is not a simple flat spring, but is curved and arched in such manner that the pads may be fitted accurately against the person of the patient, securing ease and comfort in the movements of the body.

FIRE-GRATE FOR STEAM BOILER.—Richard Eaton, Lee, England.—This invention relates to an improved mode of constructing fire-grates and furnaces for locomotive and other steam boilers, to burn wood or peat, and consists in the arrangement of grate-bars, which overlap and underlap each other in steps or terraces, with horizontal divisions between the bars, directing the air laterally towards the sides of the fire-box.

STREET CAR HEATER.—John Gibson, Albany, N. Y.—The object of this invention is to warm street cars: it is accomplished by placing one or more stoves under the seat, and conducting the smoke under the flooring and up to the roof, where it escapes without giving any annoyance, after radiating its heat into the car in its passage through the pipe.

VALVES.—Samuel J. Peet, New York City.—This invention relates to an improvement in valves for steam, gas, air, water, and all other fluids, where valves, cocks, faucets, gates or traps are used, and consists in a pair of metal discs or plates fitted in a box or shell, in such a manner as to close against the seats by being spread apart with a conical wedge, or a straight wedge turning on a swivel screwed between the discs, or which may be operated on by a sliding wedge.

STREET RAILROAD CARS.—Joseph S. Fairfax, Wheeling, W. Va.—This invention relates to improvements in a street railroad car, the principal object of which is to enable the car to turn curves easily, so that it may be stopped on the curve if desired, and be started again without difficulty.

SPOKE-DRIVING BENCH.—F. M. Lemmon, Shelbyville, Ill.—This invention relates to a new and improved machine for driving spokes in wagon-wheel hubs, and consists in a bench having a hub-clamping device by which the hub is firmly secured to the bench, and an adjustable rest for holding the spokes as they are driven, and also a binding device for holding the spokes down snug in the said rest, the whole making a very simple and desirable machine for the purpose mentioned.

CANE STRIPPER.—Melcher Mellinger, Dayton, Ohio.—This invention consists in the employment of two or more spring cutters which with a stationary platform the device for cutting off the heads of the canes and with the further addition of a self-adjusting plate or plates form the stripping device.

REST FOR TURNING LATHES.—Henry K. Smith, Norwich, Conn.—This invention consists principally in a novel arrangement of gearing whereby the movement of the rest can be changed in direction at pleasure, that is, made to move either toward the right or left on the lathe bed and also in a novel manner of constructing the rest whereby it can be raised and lowered according as may be desired.

MACHINE FOR CUTTING FILES.—Isaac Goodspeed, Norwich, Conn.—This invention relates to a new and improved machine for cutting files, and has for its object simplicity of construction and the obtaining of all the advantages attending more expensive and pretentious machines hitherto devised for the purpose.

CAR COUPLING.—James McLaughlin, Duncannon, Pa.—This invention relates to a new and improved car coupling of that class which are self connecting or self-coupling, and it consists in a novel construction and arrangement of parts, whereby a very simple and efficient car coupling of the class specified is obtained.

COMBINATION OF A SQUARE, LEVEL, BEVEL AND PLUMB.—G. L. Chamberlin, Marietta, Ohio.—This invention relates to a new and useful combination of a square, level, bevel and plumb, whereby the several tools above specified are combined in one and either rendered capable of being used by a very simple adjustment of a part pertaining to the device.

SHUTTER AND BLIND FASTENING.—Robert Hutton, Brooklyn, N. Y.—This invention consists of a fastening constructed and applied to a window shutter or blind, in such a manner as to admit of the shutter or blind being secured in a more or less open state as desired, and also admit of being readily manipulated to secure the shutter or blind in any position between a fully open and nearly a closed state.

BLACKING BOX HOLDER.—George W. Taylor, Springfield, Vt.—This invention relates to a new and improved device for holding blacking boxes, so that the hands of a person in blacking boots or shoes will not be soiled in rubbing the brush over the moistened blacking in the box. The device also admitting of the box being suspended on a nail or hook convenient for use at any time.

MACHINE FOR MAKING EYELETS.—Levi Richards, Providence, R. I.—This invention relates to a new and improved machine for making metallic eyelets, and it consists of a cutter and dies arranged and operated in such a manner that they will cut the plate in circular form and swage it into cup or tube shape. The invention also consists of a conveyer or carrier for taking the cup or tube from the dies above mentioned, and conveying it to a second pair of dies operating in connection with a punch, and in such manner that the cup or tube, formed by the first pair of dies, will be swaged into proper form and punched, so as to complete the eyelet.

CULTIVATOR.—A. P. Hammon, J. H. Lincoln, S. Lincoln, T. W. Hammon, Montfort, Wis.—This invention relates to a new and improved device for cultivating plants grown in hills or drills, and it relates to a new and improved manner of arranging the plows, whereby the same are made to penetrate the earth at a uniform depth whether the device is passing over horizontal or inclined ground, and it also consists in a novel means for guiding the machine whereby the plows may, with the greatest facility be made to conform to the sinuosities of the rows of plants.

LOCK.—E. L. Gaylord, Litchfield, Conn.—This invention more especially applies to drawer locks and small locks generally which are placed upon parts adjacent to each other, such, for instance, as the drawers of a bureau, the small doors of a secretary, etc., and which should be provided with different keys so that one key cannot unlock more than one lock.

HOISTING TACKLE.—J. C. Pierce, New Philadelphia, Ohio.—This invention relates to a new and improved tackle for hoisting articles, generally such, for instance, as hay from wagons into the bays of barns, goods in warehouses, etc. Its object is to obtain a device for the purpose specified, which will admit of the articles being hoisted and also conveyed, when in an elevated state, to the place where it is to be deposited.

GRINDING MILL.—Gilbert D. Jones, New York City.—This invention relates to a new and improved grinding mill, of the kind commonly termed the Chilian mill, and it consists in having the peripheries of the wheels or rollers of V-form, and the bed on which the wheels or rollers work provided with an angular V-groove for the peripheries of the wheels or rollers to work or run in. The invention also consists in the employment or use of scrapers applied to the machine in such a manner that by a very simple adjustment the material to be ground may be kept within the path of the wheels or rollers, and when sufficiently ground discharged from the bed plate.

HOLLOW AUGER.—Joseph Ward, New York City.—This invention relates to a new and improved hollow auger; for cutting tenons on the ends of spokes, and also on the ends of tool handles to receive the ferules, the holes in the handles to receive the tangs of the tools being bored at the same time. The object of the invention is to obtain an implement for the purpose specified, which will be capable of being adapted to cut tenons of different diameters as may be required.

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 gratuitous replies to questions 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."

C. L. K., of Ill., asks:—Will there be any loss of water from a steam boiler with 75 lbs. pressure, supplying by means of a coil, steam for heating cold water or syrup, if the discharge of the coil is turned back to the boiler: and will the flow be kept up? We reply: If the coil is placed at a higher elevation than the boiler, the condensed water will be forced back to the water space of the boiler by the steam pressure, but not otherwise, as gravitation as well as the friction of the pipe must be overcome.

E. R. B., of N. Y., inquires why, when repeated hardenings of steel have cracked the metal, heating it to a low red and plunging in water will toughen it. Ede accounts for it by stating that repeated heating of steel abstracts the carbon and tends to return the steel to the condition of wrought iron.

A. P. H. D., of Wis.—There is no instrument corresponding in attractive power to a magnet, which has any value in discovering the precious metals. The "divining rod" is a relic of superstition and ignorance.

W. L. G., of N. Y., A. E., of Wis., and R. J. S. of O., suggest that W. F. D., of Conn. (page 406, Vol. XV.) has not taken care to remove the air from the upper angles or bends of his conduit pipes. Bubbles of air so confined have been the source of much annoyance. They are pretty sure to be found when the water is first let into an undulating pipe. The best way to remove them, is to close the delivery end of the pipe, and make small holes at the tops of the angles: as soon as the water flows out of the holes they are plugged up. If any of the angles are higher than the source, a suction pump must be used for them. When the water is highly aerated, as is often the case with spring water, the upper bends of the pipe should be provided with air chambers, each having a stopcock. This subject has been before discussed in this paper, and we took it for granted in our reply to W. F. D., that he was well informed on it.

H. W. H. of—Any person may call an article patented, or unpatented, in an advertisement. The law imposes a specific penalty only, when an article is stamped patented upon which no patent exists. If any person were to suffer by the deceptive advertisement he would have a remedy by writ at common law.

F. N. B., of Wis.—The bubble of air is to be removed from your barometer by inverting the tube and then dexterously moving it till the bubble escapes. But preliminary to this manipulation you must completely fill the well with distilled mercury and cork it up that the mercury may not be spilled. But if the instrument is valuable you will do better to send it to the manufacturer.

F. S., of O.—The mineral you send is iron pyrites or sulphide of iron. It is sometimes called fool's gold, and in small quantities it is worthless.

W. L. O., of Pa.—We know of no treatise on the gaging of casks. There is the gaging rod to be obtained at any tool store, which can be procured with directions for use. The contents of a cask can be approximately ascertained by measuring the various dimensions of the vessel and then performing a simple arithmetical calculation explained in almost any mechanical handbook.

J. Q. E., of Mass., asks how the wheels of a car rigidly secured to a common axle can turn a curve the inner rail of which is twenty feet shorter than the outer, without slipping. We answer, we do not know. We never supposed anybody thought they did. It is evident that either the outer wheel must drag or the inner one slip.

C. Oswego, N. Y.—Common gum copal varnish will preserve gun barrels from rust. A little boiled linseed oil may be mixed with it, and then it can be removed by turpentine.

Business and Personal.

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

Felix W. Robertson, of Galveston, Texas, wants to know where he can obtain a quick-setting and durable cement for cisterns. He builds cisterns of shells, sand, and Rosendale cement, which in the place where he operates will not harden except after an "inconvenient period."

I. T. J., 31 S. 3d street, Reading, Pa., wants descriptive circulars of spinning gins, hand looms, etc., for farm use. Also powder-drying machine, machine for making cigarettes, and most approved wind mills.

H. L. See back numbers of SCIENTIFIC AMERICAN as to steam plows.

E. H. Bell, Antestown, Pa., desires to know where he can obtain philosophical callipers.

The address of Mr. Rogers, the patentee of the "Naphtha Lamp," is wanted by Geo. H. Baker, Morenci, Mich.

B. and C., Canada, desire to know where they can obtain machinery for making solid-head pins. Also who owns the patent for tinning wire for pins.

Geo. P. Peck, Evansville, Ind., wishes to communicate with the agents or owners of Rodgers's Patent Gas Lamp, or Burner.

"Where can I get a Patent Chimney Jack," asks E. T. Bar-num, Topeka, Kansas.

J. R. Lente, Blooming Grove, N. Y., desires to communicate with parties who drill wells through sandstone.

Makers of Wells's Patent Circular Saws are requested to communicate with J. A. Demuth, Forest City, Mo.

Inventions Patented in England by Americans.

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

PROVISIONAL PROTECTION FOR SIX MONTHS.

3,007.—FLOOR COVERING.—James H. Spencer, Philadelphia, Pa. Nov. 16, 1866

3,008.—MANUFACTURE OF LADIES' SKIRTS.—Morris Oppen, New York City, Nov. 16, 1866.

3,134.—MODE OF AND MEANS FOR REGULATING AND REGISTERING THE TENSION OF PIANO-FORTE STRINGS.—Levi L. Tower, Boston, Mass. Nov. 28, 1866.

3,257.—MACHINE FOR PEGGING BOOTS AND SHOES.—Reuben W. Drew, Lowell, Mass. Dec. 8, 1866.