RECENT AMERICAN PATENTS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week; the claims may be found in the official list:—

Slide Valve of Steam Engines.—In slide valve steam engines it is desirable, more especially in those of large size, to obtain a full opening of the port with the smallest practicable movement of the valve. To obtain this result it has been common to make the valve double-ported; but in making the valve double-ported, both for steam and exhaust, a difficulty has arisen, viz: the want of an effective mode of applying a cut-off, the arrangement of the ports having rendered it impracticable to apply a cut-off valve or valves riding on the back of the main valve. This invention consists in the combination with a slide valve which is double-ported, both for steam and exhaust, of a cut-off valve or valves riding directly on the back thereof. It also consists in a certain arrangement of the ports in such double-ported valve whereby the application of the cut-off valve or valves riding directly upon its back is made practicable. Isaac V. Holmes, of New York City, is the inventor of this improvement.

Seam-holder for Machine Sewing.—In sewing two or more thicknesses of cloth together by the sewing machine, the thickness which is near the feeding surface always tends to move faster than the other thickness, and the work is thus caused to be drawn. The object of this invention is to obviate this, and also to dispense as far as practicable with basting, and to this end it consists of a rod having attached to it two hooks or teeth, one or both of which are movable lengthwise thereon, so that by inserting the said hooks through the cloth and drawing them as far apart as possible they will keep the seam stretched even. The said seam-holder also obviates in a great degree the necessity of the operator reaching out to hold the work while sewing. George Fowler, of Waterbury, Conn., is the inventor of this improvement.

Baling Press.—This invention relates to an improved baling press of that class in which side levers are employed for operating the plunger. The invention consists in a novel and simple means for elevating the plunger at the commencement of its work whereby the levers at such time may be nearly or quite in a horizontal position, and several advantages obtained over the ordinary baling presses. The invention also consists in a simple means for ensuring a horizontal movement of the plunger, and also in an improved arrangement of the head or cover of the press-box whereby the filling of the latter and the removal of the bale therefrom is greatly facilitated. Peter Philip, of Hudson, N. Y., and Peter J. Stophilbeen, of Schodack, N. Y., are the inventors of this improvement.

Percussion Fuse.—This invention relates to percussion fuses, the fulminate of which consists of a glass capsule which is filled with a liquid and the exterior of which is coated with or enveloped in a chemical substance which is caused to take fire by the contact of the liquid on the breaking of the capsule by the percussion produced by the striking of the projectile against any resisting body when fired from a gun. It consists in certain means whereby the capsule is prevented from being broken in the handling of or by the accidental dropping of the projectile, but its breakage is insured when the projectile strikes on being fired from the gun. George P. Ganster, of New York City, is the inventor of this improvement.

Sewing Silk.—In the manufacture of sewing silk it is essential that the strands or cords, while being twisted to form the thread, be of an equal thickness throughout and the cords or strands also kept at an uniform tension in order to form an even or uniform twist of the same. This has not hitherto been perfectly done and the sewing silk after manufacture is necessarily sorted and divided into several qualities according to the evenness or regularity of the twist. The reason for this imperfectness of the manufactured article is due in the first place to the stock, the irregularity in the imported thread, the filaments of which, as they are unwound from the cocoons are not matched and kept in an even state, filaments not being added to compensate for breakage and their gradual diminishing thickness as they are unwound from the cocoons. Another reason is carelessness in the matching operation, that is, the twisting of the cords or strands to form the thread of silk. The duty of the attendant of the matching frame consists in watching the cords or strands as they are unwound from the spools or bobbins and twisted, and if one cord or strand becomes thinner or thicker than another, to break it off and put another in its place equal in thickness to those on the frame. If this be neglected, and it almost invariably is to a greater or less extent, uneven thread is the result. To obviate these difficulties, the silk is subjected, after being twisted and moistened and before being deprived of its natural gum, to as great a state of tension as it will bear without danger of breaking, and thereby draws or stretches the several cords or strands to form an even and first quality of merchantable thread. J. E. Atwood & G. Holland, of Mansfield, Conn., are the inventors of this improvement.

Telegraph Register.—In all telegraph registers heretofore constructed, the style or steel pen is so attached to the pen lever as to be immovable laterally; and in order to write upon the paper in as many lines as practicable the paper has to be moved laterally and the working surface of the rollers has to be of a length almost equal to twice the width of the paper. As one of the rollers is pressed upon the paper by means of springs bearing on each end of the roller, every time the paper is moved laterally these springs have to be re-adjusted else the pressure of the roller will be greater on one edge of the paper than on the other, causing it to run untrue in its passage between the rollers. The main object of this improvement is to obviate the necessity of moving the paper laterally and thereby obviate the above difficulty; and to this end it consists in the arrangement of the style or pen in a holder which is movable in a direction parallel with the length of the rollers, by which means also the machine is enabled to be made much narrower, requiring less pinion wire for its construction, and the clock train is made to run more truly by reason of the axles being shorter. This movable pen necessitates the provision of several grooves in the roller against which the pen operates, instead of only one groove as in the rollers of the registers heretofore constructed, the said grooves corresponding in number and in distance apart with the lines of writing desired to be made on the paper; and the invention further consists in a certain mode of combining the movable pen-holder with the pen lever, and adjusting it relatively to the several grooves of the roller whereby the said pen is enabled to be brought exactly opposite to the said grooves and the lines of writing on the paper are always made at equal distances apart, so that a greater number of lines are enabled to be made upon the paper and the paper thereby economized. Robert Henning, of Ottawa, Ill., is the inventor of this improvement, which has been assigned in full to Judge Caton of the same place.

Saving Silver.—This invention consists in the employment or use, either in combination with the basin or sink into which persons using solutions of gold or silver suffer them to be wasted, or in place of said sink or basin, of a vessel so arranged and constructed that the waste solution while running through said vessel shall be brought in contact with such chemicals or metals which will cause the whole or any part of the silver or gold contained in said solutions to be precipitated and retained in said vessel, while the worthless material is allowed to escape; it consists further in the use of a partition or its equivalent in said vessel or sink, for the purpose of forcing the precipitated silver or gold to the bottom and preventing it from being drawn by the force of the current directly to the filter or outlet; it consists finally in the employment of a filter or its equivalent in combination with the sink or vessel in which the waste solution collects in such a manner that said filter will retain such particles of silver or gold, which might still float in the liquid after being brought in contact with the chemicals and passing under the partition. Jehyleman Shaw, of Bridgeport, Conn., is the inventor of this improvement.

SHUTTLES OF ALUMINUM BRONZE.—Messrs. Paul Morin and Co., manufacturers of aluminum at Paris, have just taken out a patent for the use of aluminum bronze in making shuttles.

ISSUED FROM THE UNITED STATES PATENT-OFFICE

FOR THE WEEK ENDING APRIL 5, 1864.

Reported Officially for the Scientific American.

☞ Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

42,151.—Corn Planter. John Agnew, Bath, Pa.:

I claim the sliding or adjustable crank-shaft, I, connected with the bar, G, of the slides, F F, by means of the pitmen, H H, in combination with the bar, J, provided with the beveled projection, d, the shaft, K, lever, M, and cranks, h h, connected with the furrow-openers, O, all being arranged to operate substantially in the manner as and for the purpose herein set forth.

[This invention relates to a new and improved seed-planter of that class which are designed for planting seed in hills and in check rows. The invention consists in a novel and improved seed-dropping mechanism with means for turning the same out of gear simultaneously with the elevating of the shoes or furrow-openers, whereby the seed-dropping drill is placed under the complete control of the driver, and is capable of being manipulated by him when the machine is being drawn along. The invention also consists in the employment or use of a marking device arranged and applied to one of the wheels of the machine, whereby the latter may always be started correctly at the commencement of each "bout" or movement across the field, and the seed planted in check rows so that the plants may be plowed the ways at right angles to each other.]

42,152.—Ambulance.—G. W. Arnold, Morgantown, West Virginia:

I claim an ambulance provided with couches suspended on pins, g g, which are attached to slides, H, the latter being fitted on vertical rods, I, and resting on spiral springs, J, substantially as herein shown and described.

I further claim attaching the side curtains, F, to rollers, C, substantially as described, to facilitate the raising and lowering of the curtains as may be required.

[This invention consists in a novel manner of arranging couches within the body of an ambulance, whereby the couches are retained in a proper position when the ambulance is passing over inclined ground, the couches being also allowed to yield or give vertically under the jarring movement of the ambulance, and all so arranged as to afford the greatest possible degree of ease and comfort to the wounded, while being conveyed from the field of battle to the hospital designed for their reception and future treatment. The invention further consists in a novel and improved arrangement of the curtains of the ambulance, whereby the former may be readily raised and lowered by the device, as the state or condition of the patients may require.]

42,153.—Manufacture of Sewing Silk;—J. E. Atwood & G. Holland, Mansfield, Conn.:

We claim the process of giving sewing silk an uniform or evenly twisted appearance by subjecting the same, after being twisted and moistened and before being deprived of its natural gum, to a requisite degree of tension in the manner substantially as herein set forth.

42,154.—Slide Valve for Steam Engines.—John Baird, New York City:

I claim the combination of a face plate with a slide valve by means substantially as described, whereby an endwise or lateral motion of the former causes its acting face to recede from or approach the back of the latter, substantially as set forth.

42,155.—Manufacture of Paper Pulp.—Lucien Bardoux, Poitiers, France. French patent dated June 7, 1861:

I claim the above described process of making pulp for the manufacture of paper and pasteboard, adapted to vegetable as well as animal substances.

42,156.—Treating Animal Charcoal.—Edward Beanes, London, England:

I claim the employment of hydro-chloric acid gas, and chlorine in a gaseous state, in the preparation and treatment of animal charcoal, substantially as and for the purpose herein described.

[The object of this invention is to convert, by the application of hydro-chloric acid and chlorine gas, the lime and other earthy and alkaline matters in the charcoal into soluble salts, without producing any important action upon the phosphate of lime contained in the charcoal. Mr. Beerscan be addressed care of H. Medlock, 20 Great Marlborough street, London, England.]

42,157.—Ladies' Leggin.—Elizabeth F. & Sidney S. Bedford, Johnstown, N. Y.:

We claim the construction and arrangement of the ladies' leggin, as herein described and for the purposes set forth.

42,158.—Device for sewing Hat-linings in Sewing Machines.—Job W. Blackham, Brooklyn, N. Y.:

I claim, first, In combination with the operative parts of a sewing machine, the within described arrangement of the ways, a a, anti-friction wheels, b b, and traversing carriage, B, adapted to support the part which carries the hat tip, and allow it to rotate and slide freely back and forth, as herein specified.

Second, I claim in connection with the above the employment of the two ovals, E and F, arranged at right angles to each other and adapted to act on the wheels, G H, or their equivalents, so as to give a positive motion in both directions, substantially in the manner and for the purpose herein set forth.

42,159.—Method of expanding Tubes in Tube Sheets.—Reuel Blackwood, Philadelphia, Pa.:

I claim the employment of a hydraulic press provided with a head, a2, on its projecting main stem, a', in combination with the frustum of a cone, E, and a suitable clamp, F, arranged to operate together, substantially in the manner described for the purpose specified.

42,160.—Clothes-dryer.—H. S. Blood, New Orleans, La.:

I claim, first, The employment or use of a series of poles, D, fitted to a platform, C, or to any suitable fixture attached to a window-sill, in such a manner that said poles may be capable of being rotated for the purpose of winding the clothes upon them and unwinding the clothes therefrom, substantially as and for the purpose herein set forth.

Second, The segment or curved bars, k l, attached to the platform,

C, and provided respectively with notches, l, buttons, m, and h o les, j for the purpose of securing the poles, D, to the platform, as herein described.

Third, The combination of the brackets, A A, poles D, and platform, C, the latter being provided with suitable faste ings for the poles, and all arranged to operate substantially as and for the purpose herein set forth.

[This invention relates to a new and improved device for hanging clothes from a window for the purpose of drying the former. The invention consists in the employment or use of brackets, such as are commonly used by painters to enable them to paint the outside of windows, in connection with a platform and also in connection with poles attached to the brackets, and arranged in such a manner as to be capable of being rotated, all the parts being so constructed, applied, and arranged, as to admit of the device being very readily applied to a window and removed therefrom, and also to admit of the wet clothes being suspended from the device, and when dry being removed from it with the greatest facility.]

42,161.—Heater.—Charles T. Boardman, Bergen Point, N. J.:

I claim, first, The combination of the horizontal deflectors, j, and vertical deflectors, k, with the boiler, A, annular flue, C, and deflector, D E, constructed, arranged, and operating as described.

Second, The combination with each other and with the boiler, A, and radiator, D F, of the annular flue, C, casing, F, and deflector, i, substantially as and for the purpose herein set forth.

[The first part of this invention relates to tubular radiators applied upon or in connection with steam boilers for heating air for the supply of buildings or apartments, and it consists in a certain arrangement of deflectors in combination with an upright series of steam tubes, an upper steam chamber, and a surrounding air casing, for the purpose of conducting the air to be heated, among the said tubes and in contact with the whole of the surface of the said upper chamber. The second part of the invention consists in a certain arrangement of the flue of a boiler for steam heating, in combiuation with an air casing surrounding the boiler and radiator whereby the heat of the escaping gaseous products of cembustion is economized, by using it partly to heat the boiler and partly to heat the air for the supply of the building or apartment.]

42,162.—Step Ladder.—William Eugene Bond, Cleveland, Ohio:

I claim the herein described construction of the side bars, A A, with step boards, B C E F, in combination therewith, and having their ends cut at continually varying angles, and by their union with each other causing a spiral or twisted form of the side bars in opposite directions, in the manner and for the purpose specified.

42,163.—Artificial Fuel.—Pierre Brusson, New York City:

I claim uniting anthracite coal dust with petroleum residuum to form blocks or lumps of artificial fuel as specified.

42,164.—Wind Wheel.—John P. Burnham, Chicago, Ill.:

I claim, first, The combination of the regulating sections, f, fixed sections, e, rings, 6, stationary boards, A, and regulating disk, E, all constructed and operating in the manner and for the purpose shown and described.

Second, The oblique slotted tube, j, and disk, E, in combination with the vertically sliding sleeve, k, and regulating sections, f, of the sails, D, constructed and operating as and for the purpose set forth.

[This invention relates to an improvement in that class of wind wheels in which the wind is conducted by a series of stationary boards to a wheel arranged on the interior of each board, and made to rotate on a vertical shaft.]

42,165.—Currier's Arm or Grain Board.—Amos Chase, Weare, N. H.:

I claim the construction of carriers' grain-boards with detached faces.

I also claim the flanges, a a, Fig. 1, the grooves, b, Figs. 2 and 3.

42,166.—Fence.—E. S. Clapp, Montague, Mass., & Emory Blanchard, Amherst, Mass.:

We claim the combination of the projecting pivoted loops, B B, stakes, C, and pivoted panel, A, all adapted to operate as herein described.

[This invention consists in constructing the panels of the fence of longitudinal strips attached parallelly to upright bars, a single nail or bolt passing through the strips and bars where they intersect each other, and connecting said panels together and securing them to the earth, by means of stakes which pass through metal loops or eyes attached to the ends of the panels, all being so constructed and arranged that the panels may, with the greatest facility, be adjusted in a straight line, or in a zig-zag or other form as desired, and on level or inclined ground, as circumstances may require.]

42,167.—Rock Drill.—John Cody, New York City:

I claim, first, Operating the drill, J, through the medium of the crank, a, cord, V, pinions, Q R, on the shafts, P S, the pinion, R, having a smooth portion, f, on its periphery, and the cords, N N, attached to the cross bar, K, and drums, O O, on the shaft, P, arranged substantially as set forth.

Second, The springs, X X, attached to the bar, K, and connected by the cords, Y, to the shaft, A′, having the pulley, C′, upon it provided with the cord and weight, b′ B″, substantially as and for the purpose specified.

[This invention consists in an improved mode of operating the drill as hereinafter fully shown and described, whereby the drill is operated or made to act against the rock with an uniform blow throughout the entire length of the hole to be drilled; the drill at the same time being rotated and fed to its work by an automatic mechanism.]

42,168.—Sleeping Garment for Travelers.—Virgil P. Corbett, Washington, D. C.:

I claim the combination of straps or cords, s s, with the collar, c, of a traveler's garment, as and for the purposes specified.

42,169.—Harvester Sickle.—Isaac C. Crane, Edgerton, Ohio:

I claim in the described combination with the finger-bar, A, fingers, B, and scalloped reciprocating blade, C D, the vibrating blades, E, pivoted at their front ends to the fingers, and at their rear ends to the reciprocating blade, substantially as represented.

42,170.—Belt Clasp.—Gustavus Cuppers, New York City. Ante-dated March 23, 1864:

I claim the construction and use of belt clasps formed as herein described, the material of the belt being bent at a right angle or nearly so between the lips, b1 b2, and the bodies, B and C, for the purpose herein set forth.

42,171.—Raking Attachment to Harvesters.—David Davis, Joseph Hiebeler, & Samuel A. Porter, Prescott, Wis.:

We claim arranging or suspending the cam, H, in a swinging bar, E, connected to a foot lever, K, by a cord or chain, h, in connection with the wheels, J B, attached respectively to the cam-shaft, F, and axle, a, of the driving wheel, B, all arranged as and for the rpose specified.

[This invention relates to a novel and improved raking device for harvesters, whereby the rake, by a very simple automatic mechanism, is made to sweep over the platform from its front to its back erect and rake the cut grain therefrom, and is then elevated and moved forward in an elevated position over the platform, and above the grain falling thereon, to its front end at which point the rake is allowed to drop and then moved backward as before to perform the raking operation.]

42,172.—Cast-steel Mould.—John Deere, Moline, Ill.:

I claim the peculiar composition herein described for coating the interior surfaces of molds of dry sand to be used in casting steel into shapes.

42,173.—Grain-cradle.—D. D. Devoe, Ilion, N. Y.:

I claim the coupling band, D, with its set screw, E, in combination with the connecting rod, C, as and for the purpose herein described.

42,174.—Combined Measure and Funnel.—Samuel R. Dummer, New York City:

I claim the conical graduated measure and funnel combined, forming a new article of manufacture, as specified.

42,175.—Regulating Watches.—Charles Fasoldt, Rome N. Y.:

I claim in combination with the screw, d, the bow spring, C c1 c2, constructed and arranged substantially as hereinbefore set forth.

42,176.—Retarding blossoming of Fruit Trees.—Cyrus Fisher, Leesburg, Ohio:

I claim the process for retarding the bloom of trees, substantially as herein set forth and described.

42,177.—Corn Planter.—George W. Brown, Galesburg, Ill.:

I claim, first, In combination with the above described duplicate seed cups, l1 l2, the duplicate spring cut-offs, J1 J2, arranged substantially as represented, and for the purpose herein spe ified.

Second, I claim the fixed agitators, p1 p2, arranged to act in combination with the duplicate seed cups, l1 l2, substantially in the manner and for the purpose herein set forth.

42,178.—Corn Planter.—George W. Brown, Galesburg, Ill.:

I claim in combination with a series of duplicate seed cups, and duplicate stops, arranged substantially as above specified, the employment of the partial stop, z, arranged and operated substantially as and for the purpose herein set forth.

42,179.—Corn Planter.—George W. Brown, Galesburg, Ill.:

I claim in combination with duplicate seed cups, l1 l2, and a vibrating valve, N, operating substantially as described, the employment of the partition or division, M m, in the seed tube, adapted to serve substantially in the manner and for the purpose herein specified.

42,180.—Riding Stirrup.—Robert Nelson Eagle, Washington, D. C. Ante-dated March 21, 1864:

I claim, first, A stirrup frame of wood bent as described with arms meeting below their upper ends, and continuing upward in the form of a web or neck to afford means of applying or attaching the suspending strap, in any manner, substantially as described.

Second, A stirrup frame bent in proper form, with arms meeting at or near their upper ends and suspended by a strap, or its equivalent, passing through a slot or slots in the frame, or applied to the exterior thereof without the intervention of a metallic cap.

Third, An open hood or toe-piece, G, of leather or other material formed by pressure upon or within suitable dies, and having its lower end separate from the frame of the stirrup and provided with a horizontal corrugation or external convexity, g, to impart the required stiffness and strength.

Fourth, The use of one or more strengthening ribs or frames, in combination with a stirrup-hood or toe-piece.

42,181.—Bee-hive.—W. A. Flanders, Shelby, Ohio:

I calim, first, In combination with a dividing hive, constructed substantially as specified, bringing the comb frames by means of the extension hinge, E F, to the back or front walls, so that in opening the hive, the comb frames are brought out of the hive, in the manner and for the purpose set forth.

Second, I claim so hinging the back or front of a hive, and so attaching the comb frames thereto, that on opening the hive all the frames attached to one section may be swung out of the hive together, as and for the purpose specified.

Third, I claim in combination, the curtained tube, J, the division board, H, tube, H′, and glass, H″, operating as described for the purpose specified.

Fourth, I claim the queen and drone cages when constructed and operated as specified.

Fifth, I claim the disk, K, with the openings, 1 2 3 and 4, in combination with the openings, L, arranged and operating as and for the purpose set forth.

Sixth, I claim forming the joints of any position of the bee-hive that opens and shuts so that the angles and edges of the parts forming the joint or joints will not separate upon opening the hive or impinge upon each other when the parts are being closed, substantially as specified for the purpose set forth.

42,182.—Sleeping Car.—Ben. Field, Albion, N. Y., and Geo. M. Pullman, Chicago, Ill.:

We claim, first, The spring catch, F, arranged in the edge of the back, D, of a car seat, and operating in combination with the notched branches, e* e′*, of the hinged arms, E E′, substantially as and for the purpose specified.

Second, Making the arm, E′, out of two independently hinged branches, e′ e′*, as and for the purpose set forth.

Third, The extension braces, I, and grooved guides, i, in combination with the hooks, h, and with the platform, G, constructed and operating as and for the purpose described.

[This invention relates to certain improvements in that class of sleeping-cars in which the seats can be converted into a continuous couch, and a second tier of couches is provided by a platform which is raised to the roof of the car when not used, and lowered to a convenient hight when it is to be used.]

42,183.—Road-grading Machine.—Clinton Foster, Prairie City, Ill.:

I claim, first, The rotating, adjustable, and inclined wheel, E, provided with self-discharging buckets, F, in combination with a plow, I, said parts being attached to a framing, A, and all arranged to operate substantially as and for the purpose herein set forth.

Second, Giving the wheel, E, its self-adjusting movement by attaching the same to a bar, C, connected to the framing, A, by means of a hinge, h, substantially as herein described.

Third, Giving the buckets, F, of the wheel, E, a self-discharging movement by attaching them to the arms, b, of the wheel by means of hinges or joints, d, and connecting the buckets by chains, F, or their equivalents, to cranks, f, at the outer end of said rods, G, the inner ends being provided with cranks, i′, over which a cap, H, provided with a groove, k, and recess, l, is fitted, substantially as herein set forth.

[This invention consists in the employment or use of a rotating self-adjusting wheel provided with self-dumping buckets and attached to a frame or truck which has a plow connected with it; all being arranged in such a manner that as the machine is drawn along, the buckets of the wheel will, as the latter rotates, consecutively receive the earth thrown up by the plow and convey it around and discharge it at the desired point.]

42,184.—Cloth-holder for Sewing Machines.—George Fowler, Waterbury, Conn.:

I claim the seam-holder composed of a rod, A, and two teeth or hooks, b c, one or both of which are adjustable upon the said rod, substantially as and for the purpose herein specified.

42,185.—Percussion Fuse for Shells.—George P. Ganster, New York City:

I claim a percussion fuse composed of a screw-tube, A, closing cap, B, tube, a, thin tube, f, with attached annular plunger, b, globule, C, soft material, j, and shot or granular material, g; the whole united in the manner herein shown and described.

42,186.—Preserve Can.—John F. Griffin, New York City:

I claim the combination of a glass or other transparent stopper, with a metallic (or other opaque) can or jar, substantially as described for the purpose set forth.

42,187.—Metallic Boot, Shoe, or Sandal.—George W. Griswold, Abington, Pa.:

I claim a shoe or sandal made of metal, substantially as and for the purpose herein described.

42,188.—Closing or stopping Bottles.—Edward Hamilton, Chicago, Ill.:

I claim, first, The method herein described of bottling liquids or of stopping bottles containing liquid by the employment of an elastic impervious ball of a specific gravity greater than that of the liquid in combination with recessing or contracting the neck of the bottle in such manner that the ball when let from within the bottle into the neck will be held therein by pressure upon its circumference.

Second, The method of bottling still liquids or of stopping or closing the bottles, containing or designed to contain liquids not charged with gases or liquids charged with gases whose pressure is inadequate to effect the closing of the bottle automatically by the expansion of the gases within it, by forcing an elastic impervious ball which the bottle contains into its seat in the recessed or contracted neck of the bottle by suction.

Third, In bottles to be closed from within by means of a ball I claim forming the seat of the ball in the neck of the bottle by so contracting the outlet as to present a conical spherical or other impinging annular surface or surfaces to the ball.

Fourth, Combining with an internal stopping ball, a bottle with a short and recessed or contracted neck, that is to say a neck whose recessed or contracted ball seat is as near to the rim or outlet as practicable in view of the strength requisite.

Fifth, Closing bottles containing an elastic impervious ball lighter than the liquid to be bottled, by filling such bottles with the liquid and by then forcing air or other gaseous fluid into them.

42,189.—Railroad Car Brake.—O. J. Harrington, Manchester, Pa.:

I claim, first, The combination of the friction pulley, m, and shaft, 2, lever, o, drum, n, pulley, g, and chains, r and y, when used in connection with car brakes, arranged and operating in the manner herein described and set forth.

Second, The use of the chain, y, adjustable pulley block, 6, and chain, h, when used in combination with a lever for each brake and so arranged that the brakes will act independent of each other, as herein described and set forth.

Third, The arrangement of the pulleys, t z and g, chain or cord, s, chain, r, lever, o, shaft, 2, friction pulley, m, drum, n, chains, y and h, adjustable pulley block, 6, levers, g, furnished with cams, 10, and brakes, k, arranged and operating substantially as herein described and for the purpose set forth.

42,190.—Construction of Vessels.—Louis Hein, New York City:

I claim a vessel constructed with ribs, B a b, of angle-iron, a water tight wooden casing, C, strengthening and protecting the said ribs and an external planking or sheathing, D, all as herein specified and for the purposes explained.

42,191.—Slide Valve for Steam Engines.—Isaac V. Holmes, New York City:

I claim, first, The combination with a slide valve which is double-ported both for steam and exhaust, of a cut-off valve or valves riding directly on the back thereof, substantially as herein specified.

Second, The construction and arrangement of the several ports of a double-ported valve, substantially as described, whereby the steam exhausted through two of the exhaust ports, e e′, may pass the inner steam ports, b b′, on its way to the main exhaust port, substantially as herein described, and all the steam ports are brought into the back of the valve so that a cut-off valve or valves may be applied to ride directly thereon, substantially as herein specified.

42,192.—Grain Drill.—Augustus Hoffman, Half Day, Ill.:

I claim the lever, Y, in combination with plate, q, supports, U and V, branch lever, O, and wheels, R, the whole constructed and operated substantially as herein described.

42,193.—Mode of connecting Trucks to Locomotives.—Wm. S. Hudson, Paterson, N. J.:

I claim, first, An arm, B, extending rearward from the truck, and confined between limits so as to allow a slight freedom for the swiveling motions of the truck, substantially as and for the purpose herein set forth.

Second, I claim in combination with the above the employment of the link, G, pivoted to the rear end of the arm, B′, and to a fixed point, H, upon the body of the locomotive, and arranged to operate substantially in the manner and for the purpose herein set forth.

Third, I claim in combination with the limited freedom for vibrations of the arm, B′, the employment of the cross parts, m and N, adapted to allow a limited freedom for vertical vibrations or oscillations of the truck, substantially as and for the purpose herein set forth.

Fourth, I claim in locomotives the employment of the intermediate piece, C, or its equivalent, connected by a swivel joint to the truck, and arranged to operate substantially as and for the purpose herein set forth.

42,194.—Standard for Lumber Cars.—Henry Jacob, Loretto, Pa.:

I claim hinging or pivoting the standards to a lumber or platform car, so that they may be raised up into place when required, and swung or folded down out of the way when not required, substantially as herein described.

42,195.—Steering Apparatus.—Daniel Jones, Boston, Mass.:

I claim, first, The combination of the shaft, G, wheel, I, pinion, I′, screw, H, nut, f, and sleeve, g, in the manner and for the purpose specified.

Second, The auxiliary tiller, S, constructed and operating substantially as described.

42,196.—Corn Planter.—Samuel F. Jones, St. Paul, Ind. Ante-dated April 2, 1864:

I claim, first, Operating the seed slide, S′, through the medium of the crown wheel, C, movable lever, a, adjustable pin plate, n′, vibrating slide, b, spiral spring, S, and lever, o′, the whole being constructed and arranged to act conjointly as shown and described for the purpose set forth.

Second, I claim the agitator, n, when constructed and operated as shown and described.

Third, I claim the hub, T, with arms, 4 5 6, when used in connection with the crown wheel, C, as shown and described for the purpose set forth.

42,197.—Harvesting Machine.—W. H. Jordan, Roseville, Ind.:

I claim the arrangement of the cutting mechanism, apron, R, and arms, h, with the thrashing cylinder, T, apron, V, and shoe, Y, all in the manner herein shown and described.

[This invention relates to a new and improved machine for cutting standing grain and thrashing it simultaneously. The object of the invention is to obtain a simple and efficient machine for the purpose specified, and one which will admit of the thrashing apparatus being used separately when required. Mr. Jordan's address is 38 Bank street, New York.]

42,198.—Window-blind and Curtain Fixture.—John H. Kinsman, Westchester, N. Y.:

I claim the combination of the eccentric, C, acted upon by the cord, A O, through the medium of the lever, D, or its equivalent, the elastic opposing surface, B, the spring, E, for the purpose of retaining in position the cam, C, either when the said cam is retaining the cord in place or allowing it to pass, as and for the purpose specified.

42,199.—Carriage Circle Coupling.—George G. Larkin, West Amesbury, Mass.:

I claim connecting the two side arcs, J J, of the lower circle by means of the depressed arc, K, in combination with the stop, M, substantially as set forth and for the purpose described.

42,200.—Machine for cutting Paper.—Hervey Law, Chatham, N. J.:

I claim the combination of a lever, F, with the knife and the rack and pinion, substantially in the manner and for the purpose herein shown and described.

[This invention consists in the employment or use of a straight knife arranged to operate with a drawing or oblique cut and through the medium of a lever as herinafter set forth, whereby a powerful and compact paper-cutting machine is obtained and one simple in construction and not liable to get out of repair. The invention also consists in using in connection with the knife aforesaid, a clamp arranged in a simple and novel way, to be capable of being adjusted with facility to hold firmly the paper in position while being cut and to aid the operation of the knife. The invention further consists in the employment or use of a gage so arranged as to be capable of being adjusted by the operator from the front side of the machine.]

42,201.—Clamp Milling Machine.—A. B. Lawther, Stonington, Conn.:

I claim, first, The combination of the cutter, C, and rest, D, con-

structed, arranged, and operating substantially as and for the purpose set forth.

Second, The rest, D, having its surfaces, d e, arranged substantially as herein described in relation to each other and to the line of motion of the cutter, substantially as herein specified.

Third, The surface, f, of the rest, arranged relatively to the cutter, substantially as and for the purpose herein specified.

[The clamp milling machine to which this invention relates is commonly used for "sizing" such articles as gun-screws and barrels, center pins for pistols, ramrod heads, &c., and other round work which requires to be duplicated and which does not specially require to be turned in lathe centers. The object of the improvement is to allow the same tools to be used for cutting various sizes and to prevent the work from rolling out when being operated upon; and to this end it consists principally in the combination of a single cutting edge and an opposite rest to confine the work to said edge.]

42,202.—Truck for Street Railways.—Robert H. Lecky, McClure, Pa.:

I claim, first, The combination of the swivel bearings, 6 and 20, when used in connection with the axles, l, wheels, J, disks, m, connecting rod, 19, levers, s and t, and shaft, r, constructed, arranged and operating substantially as herein described and for the purpose set forth.

Second, Securing the tongue, a, to the bottom, b, by means of the flanged tube, XI, and support, X, as herein described and for the purpose set forth.

Third, The use of the catch, 17, and guide, g, when used in combination with the tongue, a, flanged tube, XI, bottom, b, and lever, b', arranged, constructed, and operating substantially as herein described and for the purpose set forth.

Fourth, The arrangement of the brakes, z, cups, w, plungers, v, and levers, 9 8 18 and 12, arranged, constructed, and operating substantially as herein described and for the purpose set forth.

42,203.—Steam Wagon.—Robert H. Lecky, McClure, Pa.:

I claim, first, The use of the swivel bearings, w, or their equivalents with their axis placed central to the periphery of the wheels so that said wheels may be turned sideways without any back or forward motion, other than that imparted by the engines and driving gear, as herein described and set forth.

Second, The arrangement of the wheels, a 1 2 3 4 5 and 6, endless chains, 16, crank shafts, 8, spring bars, b', and eliptic springs, o, arranged and operating substantially as herein described and for the purpose set forth.

Third, The arrangement of the shaft, 18, furnished with drums, n' y', and wheels, o'; wheel, 17, swivel heads, z, and tiller ropes, A B C D and E, when used in connection with the axles, v, swivel bearings, w, and wheels, a, arranged and operating substantially as herein described and for the purpose set forth.

42,204.—Burner for Oil Lamps.—John G. Leffingwell, Newark, N. J.:

I claim, first, Expanding the bottom end of a wick-tube so as to make the outside shell of a burner and wick-tube of one piece of metal, as described.

Second, I claim expanding the bottom end of a wick tube so as to enclose the ratchet wheels of a burner, as described.

42,205.—Grain Separator.—Silas F. Lefler, Racine, Wis.:

I claim, first, The segment projections or rockers, j j, attached to the sides of the screen, F, in combination with the rods, g h, and lever, H, the latter being operated by the connecting rod, G, and crank pulley, d, from the fan shaft, a, all arranged substantially as and for the purpose set forth.

Second, The inclined board, N, applied to the case, A, as and for the purpose herein specified.

Third, The combination of the cleets, g g, connecting board, M, and sliding board, M', constituting a movable frame applied beneath the riddle, o, in the manner and for the purposes described.

Fourth, The adjustable buttons, b', secured within the shoe, L, for the inner end of the board, M', to rest upon, for the purpose specified.

[The invention relates to a new and improved grain separator, designed for the use of farmers and to separate oats and grass-seed from wheat, and also to separate the first from the second quality of wheat, all being effected at one and the same operation and by an extremely simple arrangement of means.]

42,206.—Cotton Gin.—Wm. H. Livingston, New York City:

I claim actuating the board or plate that receives the ginned cotton from the ginning cylinder automatically and positively in order that it may be drawn or swung away from said cylinder at regular intervals for allowing the accumulated cotton to pass away, as specified.

I also claim a row of teeth or pins combined with the ginning roller, when the said pins are retracted at the time of delivering the cotton, as specified.

42,207.—Postage and Revenue Stamps.—Henry Loewenberg, New York City:

I claim a postage, revenue or other stamp produced by printing on size, applied to paper or other material to prevent the penetration of the ink, and applying the adhesive material to the opposite side of the paper, so that when the said stamp has been attached to a letter or other document and cancelled by over-printing in the usual way, the cancellation marks cannot be removed without destroying or defacing the print.

[This invention relates to a stamp which, having been cancelled by overprinting or in any other way, will not permit the removal of such cancelation marks without destroying the print.]

42,208.—Labels intended for Second Use.—Henry Loewenberg, New York City:

I claim an adhesive label formed of paper or cloth prepared in the manner described to prevent the penetration of the adhesive substance by which the label is to be attached and thus adapt the said label to be applied and removed as often as desired without destroying it.

[This invention consists in coating paper, cloth, or other material with wax or resin, or any material which is impervious to the gum or mucilage used in attaching labels to articles of commerce, &c. The label thus made is readily detached and may be repeatedly used without being destroyed.]

42,209.—Curd-cutter.—James B. Lyons, Milton, Conn.:

I claim the vibrating cutters, b b b b, in combination with the stationary rightangle cutters, a a a a, and the compresser or hand follower, C D, operating substantially in the manner as and for the purposes herein set forth.

42,210.—Apparatus for upsetting Tires.—Samuel Martin, Parshallville, Mich.:

I claim the use of a fulcrum key, c', and one or more filling pieces, c c c, in combination with a cam or eccentric for the purpose of graduating and limiting at pleasure, by a fixed scale, the movement of the cramping blocks or hold-fasts, A and B, of a tire-upsetting machine, substantially as is herein set forth.

I claim also the combination of a shaft, H, and eccentric, S, with the cramping blocks, A and B, of my improved tire-upsetting machine when said blocks, A and B, are made to operate conjointly by means of a coupling bar, D, constructed substantially in the manner and for the purpose herein set forth.

42,211.—Channeling Machine.—Gordon McKay, Boston, Mass.:

I claim applying a feeding device to operate against the edge of the sole, in combination with a feed-wheel or wheels which operate against one or both surfaces of the sole, substantially as set forth.

I also claim so combining the presser bar, N, with the presser roll and with the feed-wheel, that the operation of the presser bar will be substantially as described.

42,212.—Manufacture of Siding.—Henry Millingar, Pittsburgh, Pa.:

I claim the method herein described of producing rebated siding boards, which consists in first grooving both edges of the stuff and then slitting it obliquely between the grooves, all as set forth.

[This invention relates to a new and useful improvement in the manufacture of siding for frame buildings. The object of this invention is to economize in the manufacture of the same, and at the same time produce equally as good an article as that manufactured on the old plan.]

42,213.—Apparatus for forcing Oil from Wells.—James Molyneux, Bordentown, N. J.:

I claim the combination with the pipe, D, of an artesian oil well, of an internal pipe, C, between which and the pipe, D, intervenes a space, when the said pipe, D, is so connected with a pump or engine as that compressed air or steam may be introduced and oil thereby expelled from the inner pipe, all substantially as shown and described.

42,214.—Vapor Stove.—Oscar F. Morrill, Chelsea, Mass.:

I claim the combination of the insulator, E, with the conduit, D, and the stand, A, of the apparatus.

Also the improved apparatus for supporting vessels or articles to be heated by the aero-vapor burner, the same consisting not only of the removable boiler-supporter, K, with series of cap rings and cover, but the stand, A, as made with the perforated casing, I, the whole being arranged substantially in manner as described.

42,215.—Port-hole Closer.—J. V. Murray, Brooklyn, N. Y., and Charles Borst, New York City.

We claim the application of the lever E, provided with a lip d, and loop e, or their equivalents to operate in combination with the rope D, and shutter C, in the manner and for the purpose substantially as herein shown and described.

This invention consists in the application to a port-hole shutter of a hinged lever provided with a lip or stop to retain it in a position at right angles with the surface of the shutter, in combination with the rope which serves to raise the shutter in such a manner that by pulling said rope the lever is first raised to a position at right angles with the surface of the shutter and a purchase is obtained whereby the shutter can easily be started from the vertical position and brought up and closed with much less exertion or power than it requires to start or raise the same when the rope extends from the edge of the porthole directly to the end of each shutter.

42,216.—File-cutting Machine.—Wm. T. Nicholson, Providence, R. I.

I claim, first, The method substantially as described of imparting motion to the feeding mechanism in a file-cutting machine by the combination of a pawl and ratchet gear or its equivalent with the bands f, f, operated by the revolution of the main shaft in the manner substantially as specified.

Second, The combination of the feeding mechanism and the movable carriage upon which the blank is held during the cutting-operation in a file-cutting machine by the means substantially as described for the purposes specified.

Third, Imparting a variable rate of motion to the carriage upon which the blank is held by the method and on the principle substantially as described for the purposes specified.

Fourth, The combination of a spring or springs O', which can be torsionally strained as shown, with the mechanism for varying the tension of the same substantially as described for the purposes specified.

Fifth, The combination of a spring or springs O', which can be torsionally strained as shown, with the mechanism consisting of the slotted arm O'', and the worm gear k, m, or the equivalent of the same for adjusting the tension of the spring or springs within limits which will best give the proper degree of impulse to the cutting chisel, substantially as described.

Sixth, The combination of a spring or springs O', which can be torsionally strained as shown with the carriage, B' B', or other device which carries the cutting chisel substantially as described.

Seventh, The method of arresting the action of the cutting chisel at any previously determined point in the progress of the blank under the cutter by the combination of a spring stop (Fig. 5) substantially as described with an adjustable inclined plane upon the movable carriage as herein specified.

42,217.—File-cutting Machine.—Wm. T. Nicholson, Providence, R. I.:

I claim the method substantially as described of regulating the position of the rolling bed of a file-cutting machine by means of equalizing springs or their equivalents applied and operating substantially as herein specified.

42,218.—Street Pavement.—Lewis F. Noe, New York City:

I claim the combination and arrangement of the nails or spikes, B, with the stones or blocks, A, of a Russ or block pavement substantially as and for the purpose set forth.

42,219.—Ladder.—Edward F. Olds, Lyon, Mich.:

I claim, first, The sections, A, and B, B, when united by the splice piece, F, and secured in an extended form by the round E, as specified.

Second, I claim the extension brace, G, H, when used in combination with the sections, A, B, as and for the purpose set forth.

Third, I claim the platform, O, when constructed and used as described

42,220.—Plow-handle.—S. J. Olmsted, Binghamton, N. Y.:

I claim the metallic hand-handle for plows, and other agricultural implements having a rein-hole therein and constructed substantially as herein recited.

42,221.—Cooking Stove.—John Park, Joliet, Ill.:

As a new article of manufacture I claim the cooking cup-board herein described, all constructed and arranged substantially as herein specified and shown.

42,222.—Planking Screw.—Abram Perrin, Cleveland, Ohio:

I claim the bar, A, arms, B, B', fulcrum, C, lever, E, screws, F, and H, the several parts being arranged and operating as and for the purpose specified.

42,223.—Baling Press.—Peter Philip, Hudson, N. Y., and P. J. Stophilbeen, Schodack, N. Y.:

I claim, first, the employment or use of a pendent pulley or bracket H, or its equivalent, arranged relatively with the plunger, B, rope, I, levers, C, C, and the pulleys, F, F, or equivalent rope guides, so as to throw up the plunger B, when the latter is at the bottom of the press-box and the levers, C, C, in a horizontal position as set forth.

Second, The strips or bars, d, d, attached to the plunger, B, at two opposite sides thereof in combination with the vertical slots, c', c, in the sides of the press-box, A, all arranged substantially as and for the purpose herein specified.

Third, The combination of the box, B, head or top, K, hinge, L, and fastening, N all constructed, arranged and operating as specified.

42,224—Roller for Wringers.—Joseph F. Pond, Cleveland, Ohio:

I claim the application of canvas cloth, or other material for the purpose of repairing, covering, and protecting torn, defaced and soiled india-rubber clothes-wringer rollers, and to prevent the shaft from turning or getting loose in the roller as and for the purpose herein set forth.

42,225.—Heater.—John S. Reid, Muncie, Ind.:

I claim in the described combination, the heat reservoir, E, air chamber, F, air inlets, G, oblique air ducts, H, and conical deflector, J, as herein described.

42,226.—Wool Flannel.—J. F. Rich, Chatham Run, Pa.:

As an improved article of manufacture, I claim a flannel composed and made in the particular manner herein set forth.

[This invention consists in a new kind of flannel in which hard twisted yarn is presented in one surface for wear, and a softer yarn to the other surface for warmth, such flannel being made by using a harder or more twisted yarn for the warp, and a softer or less twisted yarn for the weft, and weaving in such a manner as to throw the greater portion of the warp on one side, and the greater portion of the weft on the other.]

42,227.—Breech-loading Fire-arm.—A. H. Rowe, Hartford, Conn.:

I claim the combination and arrangement of the switch groove 2, and its projection connecting the two grooves 1 and 3, and operating therewith and with the ejector, l, m, n, as herein described and represented, for throwing out the empty cartridge case in the act of turning the barrel to reload it as set forth.

I also claim the prolongation of the trigger guard, as shown at i, for the purpose of forming and inserting it as a spring between the hammer and breech-piece to start back the hammer after the discharge, in the manner and for the purpose described.

42,228.—Elastic Cushion for Piercing Implements.—Benjamin Davis Sanders, Wellsburgh, West Virginia:

I claim as a new article of manufacture, an elastic cushion for piercing instruments substantially as and for the purpose described.

42,229.—Roof of Railroad Cars.—O. P. Scaife, Pittsburgh, Pa.:

I claim, first, The means substantially as described and represented for sustaining the arched corrugated metallic roof A, and connecting the same to the car body, the whole being arranged as herein represented.

Second, The combination of angular knees, tie rods, adjustable T, struts, corrugated roof and car body, substantially as described.

42,230.—Square and Bevel combined.—George A. Shelley, Madison, Conn.:

I claim the combination of the square, B, screw-pivot, e, and slotted stock, A, all arranged and operating substantially as and for the purpose herein shown and described.

[This invention consists in a square attached to an ordinary slotted stock by means of a screw pivot in such a manner that said square can be turned on the pivot and set in any desired position in relation to the stock and either arm of the square can be used to draw lines in an oblique direction to the edges of the stock, or if desired the square can be converted into and used as a T-square.]

42,231.—Water-proof Compound and Varnish.—Edwin L. Simpson, Bridgeport, Conn.:

I claim the varnish or compound produced by combining sulphur with vegetable oil (made drying in the manner substantially as described) substantially in the manner and for the purpose as herein specified.

42,232.—Cultivator.—Seymour Sloan, Kewanee, Ill.

I claim the combination of the beams B, B, C, C, connecting bars D, D', E, F, G, levers, c, c, treadles H, and bent levers, H', all constructed, arranged, and operating in the manner and for the purposes herein specified.

42,233.—Locomotive Steam Engine.—Albra F. Smith, Norwich, Conn.:

First, I claim in locomotives, transmitting motion from the crank shaft, A, to the bearing wheels, R, through the medium of the friction wheels, V T, so arranged as to be both out of contact with the rails as herein set forth.

Second, I claim in connection with the above mounting the bearings of the driving axle, A, in the same pedestals with the bearings of the driving axle, T, in the same pedestals with the bearings of the driven axle, t, substantially as and for the purposes herein set forth.

Third, I claim the employment in locomotives of a slight clip or catch, Z, arranged relatively to separate hand levers, J, j, or their equivalent connected each to the same starting and controlling mechanism substantially in the manner and for the purpose herein set forth.

Fourth, I claim in locomotives, so constructing and arranging the tanks W, W', that they are of little width but greatly extended in longitudinal and vertical dimensions and are rigidly framed together and to the framing Q, Q, or its equivalent substantially as and for the purposes herein set forth.

Fifth, I claim in locomotives so constructing and arranging the said tanks W, W', that they are of little width but greatly extended in longitudinal and vertical dimensions and are mounted outside of the working gear substantially as and for the purposes herein set forth.

42,234.—Car Ventilator.—A. B. Spencer, Rochester, N. Y., Ante-dated March, 28, 1864:

I claim, first, The dust pan or cinder collector constructed and operated as shown by Fig. 4, and herein described.

Second, the arrangement of the rectangular mouth b, with the deflecting surfaces, f, and g, as described.

42,245.—Registering Dies.—Edward Spencer, St. Louis, Mo. Ante-dated March 23 1864:

I claim, first, In combination with the stationary die which I have called the block or frame, R, the movable monthly registering die, A, and the two movable dating dies, B, B, substantially in the manner described.

Second, In combination with the stationary die, R, the movable numbering die or dies D, whether there be one, two or three of said dies to mark the number of trips as set forth.

Third, In combination with the stationary die, R, the movable or adjustable die, C, which marks the year, substantially as set forth.

Fourth, The combination of the monthly registering die, A, the numbering dies, D, and the dating dies, B, B, with the stationary die R, substantially as described.

Fifth, I claim the combination of the die, C, which marks the years, whether it be movable or stationary, with the numbering dies, D, the monthly die, A, and the dating dies, B, B, arranged in a stationary die as in the block, F substantially as set forth.

42,238.—Vise.—Anson P. Stephens, Brooklyn, N. Y.:

I claim the toothed bar, C, with jaw, D, attached in connection with the toggle, G, toothed bar, H, and the lever, B, and cam, E, or their equivalents, for operating the toggle all arranged substantially as and for the the purpose set forth.

I also claim the hook, F, on the lever, B, when used in connection with the toggle, G, and toothed bars C, H, for the purpose specified.

I further claim the hook projections, g, g, on the part, d, of the toggle in connection with the projections, h, on the part, d', thereof for the purpose set forth.

[This invention relates to an improved vise of that class which are placed on benches or supports, and are commonly termed bench-vises. The objects of the invention is to obtain, by a simple arrangement of mechanism, a vise of the class specified, which will admit of its sliding or adjustable jaw being quickly adjusted to the work or article designed to be held by it, and at the same time admit of the work or article being firmly grasped and held in the vise.]

42,237.—Channeling Machine.—Curtis Stoddard, North Brookfield, Mass.:

I claim so applying the channeling cutter to the head N, in which the pressure roll I, is journalled that the contract of said roll with the surface of the sole shall gauge the depth of cutting action of said channeling tool.

I also claim the construction of the feed wheel, C, whereby from the disposition of the teeth, a, they are kept from contact with the edge of the sole as set forth.

42,238.—Butter-worker.—Almon Swift, East Hmore, Vt.:

I claim the combination of the shaft, B, conical roller C, and a fastening, g, or its equivalent, so arranged as to render the roller C, fast or loose on the shaft, B, at pleasure substantially as described.

42,239.—Wrench.—Chas. R. Thorn and Alfred Leigh, Clinton Station, N. J.:

We claim, first, The double set of jaws, b, b,* applied to the disks B, B', in the manner and for the purpose substatially as specified.

Second, The disks, B, B', each provided with a stationary jaw, b, and with a movable jaw, b*, moving in an oblique recess, c, in combination with the ratchet wheel, D, handle, E, and pawl, g, constructed and operating in the manner and for the purpose substantially as shown and described.

[This invention consists in a wrench with a double set of jaws, one for right and the other for left handed work, or one for tightening, and the other for unscrewing a nut or screw in combination with a ratchet wheel pawl and handle, in such a manner that the operation of tightening or unscrewing a nut or screw can be performed with the same wrench and without removing the jaws from such nut or screw until the operation is finished.]

42,240.—Heat-governor for Stoves.—Albert H. Tingley. Providence, R. I. Ante-dated March 30, 1864:

I claim, first, The expansion tube, F, and their enclosed rods, H, in connection with a lever, J, or any equivalent device for operating a valve or damper, N, for the purpose specified, by which the latter is adjusted solely by the expansion and contraction of the tubes, F, no counter-poise or weight being employed.

Second, The lever-plate, I connecting the two rods, H, H, when used in connection with the tubes, F, for the purpose specified.

Third, The adjustable bar, K, or its equivalent interposed between the lever, J, and rod, L, for the purpose of controlling the action of said lever on the rod, L, and valve, N, as set forth.

Fourth, The employment or use of the valve, N, interposed between the ash-box and a passage communicating with the smoke-pipe and placed within a suitable box, B, provided with openings b', substantially as shown or in any equivalent way to operate as set forth.

Fifth, Placing the arm, s s, of the valve between the plates u, u', substantially as shown for the purpose of facillating the adjusting of the valve, N, in the box, B.

Sixth, Adjusting the bar, K, through the medium of the arbor, P, index, Q, and graduated dial, R, as set forth.

Seventh, The adjustable plate, S, placed on the arbor, P, when used in connection with the index, Q, as and for the purpose specified.

Eighth, The partition plate, a, in the valve box, B, in connection with the slot, c', in the valve, N, whereby one valve is made to answer for both compartments of the box B, as set forth.

[The object of this invention is to obtain a simple and efficient self-acting heat-governor for stoves and hot-air furnaces—one which will admit of being adjusted in such a manner as to govern the heat according to the state or temperature of the weather, and which may be adjusted properly to thus act or operate by any person of ordinary ability.]

42,241.—Cane-stripper.—William Todd, Barnsville, Ohio:

I claim the within described process of stripping the leaves from the stalks of sorghum or sugar cane by compressing a quantity of cane by means of ropes, b, and weights, c, or their equivalents, and drawing one stalk after the other out of the bundle substantially in the manner shown and described.

[This invention consists in stripping the leaves from the stalks of sorgham or sugar cane by compressing firmly a quantity of canes into a large bundle and pulling one stalk after the other out of the bundle, the pressure being kept up continually by weights or their equivalent, so that by the act of pulling out the stalks the leaves are stripped off and the operation of stripping can be performed with much less trouble and labor and more perfect than the ordinary manner.]

42,242.—Water Wheel.—Wm. L. R. Valentine, Fort Edward, N. Y.:

I claim the wheel D, constructed with two sets of buckets, F, F', one set being above the other, and the upper set, F, formed at their face sides, with a straight triangular surface, d', and a concave surface, d, and the lower set F', formed with concave face sides, in combination with the conical lower plate, a, of the wheel, and the scroll, A, all arranged as herein set forth.

[This invention relates to an improved water wheel of that class which are fitted on a vertical shaft, and are commonly termed horizontal water wheels. The invention consists in the employment or use of two sets of buckets constructed of such a form and combined with a scroll in such a manner as to obtain a large per centage of the power of the water. The invention also consists in the employment or use of a wicket or gate within the scroll, arranged in such a manner as to admit of the escape of drift, mud, or other solid substances which may pass into the scroll, thereby avoiding the breaking of the buckets, a contingency of frequent occurrence in this class of wheels.]

42,243.—Water-heater for Steam Boilers.—H. N. Waters, Hartford, Conn.:

I claim the arrangement of the tank, A, with the exhaust pipes, E, and D, and the distribution of the water through the cone-shaped attachment, in juxta-position to the exhaust pipe, D.

42,242.—Machine for sawing Heading for Barrels.—Peter Welsh, Oswego, N. Y.:

I claim, first, the combination of the shaft, S, pinions, V, and W, (with their clutch jaws, a, and d,) double clutch, b, c, fork lever g, and racks e and f, substantially in the manner and for the purpose described.

Second, The feed mechanism of the carriage, y, consisting of the racks, i, pinions, j, ratchet wheel, j', pawl, arm, m, and guide, n, arranged for conjoint operation in the manner specified.

Third, In combination with the carriage, y, the dogs, o, and p, lever t, and arc, v, arranged and operating substantially as set forth.

Fourth, In combination with the lever, g, the hooks, y, and z, and the springs, a' and b', arranged and operating substantially in the manner described.

42,245.—Piston Packing.—Jerome Wheelock, Worcester, Mass.:

I claim the segmental packing rings, D, E, constructed in the manner and for the purpose set forth and described.

42,246.—Sawing Machine.—O. A. White and J. W. Bostwick, Norwich, Ohio:

We claim, first, The combination and arrangement of levers, D and D' F G and H, and ratchet, E, constructed and operating substantially as specified and for the purposes set forth.

Second, The combination and arrangement of arm, K, cord, k, and lever, L, as and for the purposes set forth.

Third, The combination and arrangement of slide, O, cord, P, and lever L, constructed and operating as and for the purpose described.

42,247.—Paper Case Envelope.—J. W. Wilcox, New York City:

I claim the pieces of wood, A A, fastened to the ends of the envelope, as and for the purpose shown and described.

42,248.—Harvester.—C. P. Wing, Fayetteville, N. Y.:

I claim, first, The pins or projection, S, in the shaft, N, in combination with the pin or projection, in the wheel, O, for the purposes specified.

Second, I claim the spring guard, L, for the purpose of protecting the standing grain or other material outside of the shoe, B, from the knife, V, and those following, as described and specified.

42,249.—Lantern.—F. W. Woodward, New York City:

I claim a lantern provided with a glass flame protector or globe, cylinder, or other form, in one piece, with a metal cap and base secured to its ends by a screw or other equivalent fastening which will not require the aid of plaster of Paris or cement of any kind, substantially as and for the purpose set forth.

I further claim, in combination with the mode of connecting the metal cap, base and glass flame protector, as described, the guards, D, attached to the cap at their upper ends and secured at their lower ends to a band which encompasses the lower part of the flame protector, substantially as set forth.

[This invention relates to an improvement in that class of lanterns which are provided with glass flame protectors of spherical, cylindrical or other form, in one piece, instead of detached glass planes for protecting the flame of the lamp from the wind. These flame protectors of the kind first mentioned, have hitherto been attached to their metal caps and bases by means of plaster of Paris or other suitable cement, and in case of the breaking of a protector a new one cannot be placed in the metal frame by any one except a mechanic or one skilled in the manufacture of lanterns. Hence, in a majority of cases, when a protector gets broken, the remaining metal parts are thrown away as useless. The object of this invention is to attach the metal cap and base to the protector in such a manner that the parts may be connected together and attached by any one with with the greatest facility, no cement of any kind being required, and hence in case of the breaking of a glass flame protector a new one may be adjusted to the metal parts without the aid of a mechanic.]

42,250.—Turning Lathe.—L. D. Wynkoop, Owasso, Mich.:

I claim the bearing, F, provided with the knives, H Q, and attached to a sliding frame, D, on the lathe bed, C, in combination with the rising and falling bar, I, to which the knife, Q, if attached, the loaded lever, K, connected to bar, I, and the pattern, N, on the bed, C, on which pattern the outer part of the lever, K, rests, all being arranged to operate substantially as and for the purpose herein set forth.

This invention relates to a new and useful attachment for turning lathes, whereby beads and similar ornaments may be turned or formed on sticks or other articles centered in the lathe. the device being self-feeding and capable of being applied to any ordinary turning lathe.]

42,251.—Mold for making Castings.—S. A. Corser, Northampton, Mass., assignor to himself, R. G. Marsh Holyoke, Mass., W. R. Marsh, Northampton, Mass., John A. Sims, Greenfield, Mass. Ante-dated March 28, 1864:

I claim the mold, as constructed, with a mechanism for lowering the pattern relatively to the flask and as provided with one or more sand-receiving grooves or recesses and discharging outlets arranged in the base of the mold, substantially as specified.

42,252.—Sap Conductor.—C. S. Curtis (assignor to himself and L. B. Wolcott), Farmington, Ohio:

I claim a metallic sap conductor having an entire oblique lip, A', plug, C, channel, C', and conductor, B, the several parts being constructed and arranged as and for the purpose specified.

42,253.—Telegraph Register.—Robert Henning (assignor to J. D. Caton), Ottawa, Ill.:

I claim, first, In combination with the many-grooved roller, B, employed to support the paper against the pen or style, a, the pen-holder, D, attached adjustably to head, C', so as to adapt the pen, a, to be moved longitudinally in respect to the roller, B, substantially as and for the purposes herein described.

Second, The movable pen-holder, D, provided with a series of holes, j i, and the spring bolt, j, or its equivalent, combined with the lever and the many-grooved roller, substantially as and for the purpose herein set forth.

42,254.—Carpet-cleaning Machine.—W. H. Jordan (assignor to himself and T. Jordan), New York City:

I claim, first, The employment or use of a series of flails or beaters, E, attached through the medium of disks, D, or their equivalents, to a rotating shaft, B, and arranged in relation with the carpet, E', to operate in the manner as and for the purpose herein set forth.

Second, The yielding or elastic cords, G, applied to the framing, A, and arranged in relation with the flails or beaters, E, substantially as and for the purpose specified.

[This invention consists in the employment of a series of revolving flails or beaters, arranged in a novel way and used with yielding cords and rollers, the latter having the carpet to be operated upon adjusted around them, all the parts being so arranged that by the turning of a simple shaft, the flails or beaters will be rotated and made to act upon the carpet while the latter is moved past the former, so that the whole of the carpet will be subjected to the action of the beaters.]

42,255.—Harvester.—W. A. Kirby (assignor to himself and D. M. Osborne), Auburn, N. Y.:

I claim, first, In combination with a stud or pin, n, upon the plate or lever, A, the hinged and slotted arc, N, upon the main frame, for the purpose of suspending the main frame to the plate or lever, at a higher or lower elevation as may be desired, substantially as described.

I also claim, in combination with the lever, A, stud and arc, the lever, R, by which the driver from his seat may raise up, fasten up, or let down the main frame and cutting apparatus, substantially as described.

42,256.—Vapor Stove.—C. B. Loveless, Syracuse, N. Y., assignor to O. F. Morrill, Chelsea, Mass.:

I claim, first, The stove, K, and chamber, H, constructed, arranged and operating substantially as above described, in combination with the independently-acting valve rod, c, and gas cock, G.

Second, The valve rod, c, passing through the reservoir and conduit into the vaporizing or retort pipe, constructed, arranged and operating as set forth.

42,257.—Mode of pulverizing and preparing for use Coal, &c.—J. E. Lundgrew, Stockholm, Sweden, assignor to himself and C. E. Habicht, New York City:

I claim, first, The method herein described of pulverizing to any given degree of fineness, vegetable, mineral or animal substances of a friable nature or substances capable of being reduced to powder by means of balls or the mechanical equivalent thereof in motion, in cylinders revolving upon their axes.

Second, The production of a substitute for lampblack and other similar carbonaceous matter in its various applications in the arts, by pulverizing in the manner referred to an impalpable powder, animal, vegetable or mineral coal.

Third, The production of new articles of manufacture in which coal, pulverized as referred to, is used in lieu of lampblack and other impalpable carbonaceous matter, as one of the ingredients.

42,258.—Gang Plow.—Robert Nation, Chebanse, Ill., assignor to himself and James N. Orr:

I claim the combination and arrangement in a gang plow, of the plow beams, D D, the guides, F F, provided with the slots, a a, the axle, H, provided with the slots, s s, the chains, e e, the roller, R, and lever, I, all constructed and operating as and for the purposes herein delineated and set forth.

42,259.—Washing Machine.—Nathaniel Otis, Chicago, Ill., assignor to himself and Joseph Fanyou:

I claim the combination and arrangement of the beater, F, when provided with the peculiarly-constructed grooves, herein described, with the perforated block provided with the inclined face, all arranged, constructed and operating, as and for the purposes specified and shown.

42,260.—Card-holder.—L. A. Roberts (assignor to Louis Prang), Boston, Mass.:

I claim my improved paper, as made with one or more recesses and with slits arranged relatively to such recess or recesses, substantially in manner and for the purpose specified.

42,261.—Foot Stove.—John Thompson (assignor to E. N. Colt), Brooklyn, N. Y.:

I claim, first, A T-shaped warming pan, a b, with or without air chambers, e h, as set forth.

Second, I claim the combination of the horizontal air chamber, e, and vertical air chamber, h, with the T-shaped reservoir, a b, substantially as specified.

[This invention consists in the application to a warming pan of an air chamber with perforated or solid sides, in such a manner that the feet or other parts of the body can be warmed without coming in direct contact with the surface of the pan; also in a warming pan constructed in the shape of a T, so that in placing the feet on the two horizontal wings of the pan, the vertical wing extends up between the legs, and the beneficial effect of the pan is extended over a larger portion of the body than with warming pans of the usual construction.]

42,262.—Lamp.—William Webb (assignor to the Scoville Manufacturing Co.), Waterbury, Conn.:

I claim the combination of the deflector, A, perforated base, B, and imperforate shield, B', constructed and applied as herein shown and described and for the purpose specified.

[This invention consists in having the slot of the cone or deflector of the burner extended horizontally at each end, whereby the size and brilliancy of the flame is very materially increased. The invention also consists in using, in connection with the slot formed as stated, a series of openings arranged in such a manner as to obviate the conducting of heat from the flame down to the lamp.]

RE-ISSUES.

1,649.—Machine for surface-sizing Fibrous Material.—Wm. Fuzzard and James Hatch, Malden, Mass., assignees of said Wm. Fuzzard. Patented January 12, 1864:

We claim the employment or use of a heated metallic cylinder, B, or one having a metallic exterior or periphery, in combination with a heated pressure cylinder, one or more, and a polishing roller, G, or its equivalent, arranged as shown, for the purpose of surfacing and drying, simultaneously or at one operation, fibrous materials, as set forth.

We further claim the distributing or throwing of the glazing or sizing upon or against the cylinder, or upon or against a web without a cylinder, by means of a brush, substantially as set forth.

1,650.—Hand-cuff.—George W. Reed (assignor to W. V. Adams), New York City. Patented June 17, 1862:

I claim, first, A hand-cuff or shackle composed of the two sections, A and B, hinged together and constructed substantially as described, and provided with the lock, C, or its equivalent.

Second, In combination with the shackle, as above described, I also claim the clevis or staple, substantially as set forth.

1,651.—Apparatus for saving Silver, &c., from Waste Solutions.—Jehyleman Shaw, Bridgeport, Conn. Patented July 8, 1862:

I claim, first, The employment or use either in combination with the basin or sink, into which persons using solutions of gold or silver suffer them to be wasted, or in place of said sink or basin, of a vessel, A, so arranged in combination with a bag, C, or its equivalent, that the waste solutions in running through said vessel, shall be brought in contact with such chemicals or metals which will cause the whole or any part of the silver or gold contained in said solutions to be precipitated and retained in said vessel, while the worthless material is allowed to escape.

Second, The use of the partition, B, in the vessel or sink, A, which serves to collect the waste solutions containing gold or silver, substantially as herein described so that the silver or gold is forced down to the bottom and prevented from being carried off by the current of the liquid.

Third, The filter, D, applied in combination with the vessel or sink, A, in which the waste solutions collect, substantially in the manner set forth so that said filter will retain such particles of silver or gold which may still be kept in suspension in the liquid.

DESIGNS.

1,927.—Oil Can.—H. Everett, Philadelphia, Pa.:

1,928.—Floor-cloth Pattern.—George Green, Wappingers' Creek, N. Y., assignor to Deborah Powers, Albert E. Powers & Nathaniel B. Powers, Lansingburgh, N. Y.:

1,929.—Screen.—James L. Jackson, New York City:

1,930.—Revolving Pistol Handle.—Daniel Moore, Brooklyn, N. Y.:

1,931.—Floor-cloth Pattern.—James Paterson, Elizabethtown, N. J., assignor to Edward Harvey, Brooklyn, N. Y.: