

The Suez Canal—Its Present and Prospective Condition.

A correspondent of the San Francisco Bulletin gives the following account of the Red Sea and Mediterranean canal: "Having landed at a little stone pier opposite Suez and on the Asiatic side, a walk of 15 minutes brought us to the bank of the canal. This is an enterprise undertaken and carried on by a French company, and is intended to connect the Red Sea with the Mediterranean and to be large and deep enough to permit the largest class of vessels to pass through into the Indian ocean. Though the distance is only about 70 miles, this is undoubtedly one of the most formidable civil undertakings of modern times. And, considering the admitted doubt of its feasibility, this is even a more daring attempt than the Pacific Railroad. The building of the Pacific Railroad was never a question other than of money and time. But after cutting this canal about 20 miles of the line to the requisite width an obstacle, thought by many to be unsurmountable, has been met with. It passes through a shallow lake for a considerable distance, and it is in this that the trouble has developed. The bottom is a quagmire, and as fast as it is thrown out fills up again by oozing in from the bottom and sides. A difficulty under which the railroad company labor, has also been found to threaten the canal builders even more formidably than it has that enterprise. It is the drifting sand of the desert that constantly moves with the wind, filling up and covering over every obstacle in its path. The railroad managers are obliged to be at work constantly to keep their track above ground. And it is claimed by many engineers to be practicably impossible to keep the canal open, even if it ever is finished. The original capital of the company was 400,000,000 francs. They had also an extensive grant of land along the line of the route from the late Viceroy of Egypt. But the present Viceroy Ishmael Pacha, is rather unfriendly to French influence and inclines to the English. This is encouraged and urged on by the diplomats of that nation, who see pretty plainly the plans of France to get possession of all northern Africa. The Order of the Bath has just been conferred upon the Egyptian with appropriate ceremonies. He has therefore withdrawn the grant of land and compromised with the company by a subsidy of money instead, amounting to about 80,000,000 francs. The original capital had been well invested, and the management has been able to report to the company that while an amount has already been expended in the prosecution of the enterprise nearly equal to the original capital stock, still a sum remains in the treasury of about the same amount for future operations. The report which has recently appeared claims that the work is going on in a successful manner, and that in six years the whole will be complete."

"Though began long before the Pacific Railroad, unless the Frenchmen are wide awake, the American road to India will be completed ahead of them. The canal is intended to be 300 feet wide and 25 feet deep. That part near to Suez, and which we visited, is being executed in the best possible manner, and if it all shall be finished equal to this section, the Suez Canal will be a work in the engineering line never before approached in the history of that science. But when it is finished the power of the Turk in Africa will have passed away and one more step toward making the Mediterranean a French lake will have been taken. The line of the canal runs almost due north from a point opposite Suez debouching at Port Said in the Mediterranean. The Russian line of steamers from Alexandria to Odessa on the Black Sea touch at this port once in a fortnight. It is about 50 miles east of the Damietta mouth of the Nile. The canal is already cut to a width and depth sufficient to permit the passage of boats from Suez to Port Said. From Suez north to a distance of 20 miles barges are towed by men or horses, and from that point to the sea small screw steamers ply back and forth. This is done by means of a small channel or ditch cut in the middle of the intended canal, and is about 25 feet wide. The ship canal is being down on each side of this to the requisite width, but in no place has it reached a sufficient depth. The depth is to be obtained by excavations to a point where the water shall prevent this class of operations, and after that by dredging. The great canal has one feeder from this branch of the Nile to supply it with water, the balance coming from the lake and the two seas that it is intended to connect. The steamers of the Peninsula and Oriental Company do not come up to Suez, but anchor in a harbor about five miles further down. In fact the little vessels that do reach the town do so only at high tide, and for a great part of the 24 hours in the day lay high and dry in the mud and sand."

ARTIFICIAL DIGESTION.—A London physician, Dr. Marcet, has announced a process by which natural digestion is simulated by artificial means, and solid food may thereby be prepared for invalids. Dr. Marcet takes fifty-eight grains of muriatic acid having a specific gravity of 1.1496; fifteen grains of pepsine—the organic principle procured from the stomach of a pig or other animal. Diluted in a pint of water and added to a pound of raw meat, the whole is allowed to simmer under a water bath at about the temperature of the body, 98° F. When the meat is by this means sufficiently broken up, it is strained and the acid neutralized by eighty-one grains of bicarbonate of soda. The product is of a most agreeable character, easily digested and vastly more nutritious than beef tea. Where pepsine cannot be obtained, the doctor has found strips of calves' stomachs answer very well.

MOWING MACHINES are not very generally used in England, and the chief obstacle to their introduction has been the landlord's dread of the destruction of game, as the machines show no mercy to sitting pheasants and partridges.

OFFICIAL REPORT OF PATENTS AND CLAIMS

Issued by the United States Patent Office, FOR THE WEEK ENDING AUGUST 20, 1867.

Reported Officially for the Scientific American

PATENTS ARE GRANTED FOR SEVENTEEN YEARS the following being a schedule of fees—

Table with 2 columns: Fee description and Amount. Includes items like 'On filing each caveat', 'On filing each application for a Patent, except for a design', 'On application for Extension of Patent', etc.

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.

67,836.—FLOUR BOLT.—R. H. Alexander, Plato, Ohio. I claim constructing a bolting reel with a hollow perforated shaft, such shaft being furnished with a hollow open end journal, all substantially in the manner and for the purposes described.

67,837.—BRIDLE REIN.—Wm. D. Andrews, New York city. I claim the safety riding or driving reins, E, whether the same be made separately from, or are inclosed, and move freely within and through the ordinary driving reins, A, or whether with or without check rein attached, as described, when the said reins are combined with, arranged and attached to the reins, E, in the manner and arranged so as to operate as described for the purpose specified.

67,838.—SLEIGH BRAKE.—John Ast, Maquoketa, Iowa. I claim the combination of the cranks, E, and rod, B, and lever, L, with the slotted levers, C, C, so as to operate substantially as above described.

67,839.—MANUFACTURE OF WHITE PAINT FROM ZINC ORES.—Nathan Bartlett, Birmingham, and George T. Lewis, Philadelphia, Pa. We claim the employment of steam, in combination with water, in the manufacture of white paint from zinc ores, the water being so arranged that the products of combustion arising from the furnace shall be caused to pass through a fine in water, contact with the water on their way from the furnace to the bags or settling chamber, and the steam being caused to mix with such products before they pass through or come into such contact with the water, substantially as set forth.

67,840.—VALVE FOR GAS GENERATORS.—John H. Beacher, Philadelphia, Pa. I claim a valve regulator, constructed and operating substantially as set forth, in combination with and forming a part of a gas generating apparatus, as specified.

67,841.—MUFF.—Louis Bauhofer, Philadelphia, Pa. I claim, as a new article of manufacture, a muff consisting of two or more sheets of suitable material, cut folded and stretched so as to form a number of compartments, each of which contains a body of cork, as set forth.

67,842.—AMALGAMATING PRECIOUS METALS.—John B. Beers, San Francisco, Cal. I claim the use of amalgamated woven wire gauze or amalgamated perforated sheet metal.

I also claim, in combination with amalgamated wire gauze or perforated sheet metal, the canvas or cloth arranged under the wire gauze or perforated metal.

I also claim, in combination with the amalgamated wire gauze or perforated metal, the use of corrugated amalgamated sheet metal plated either with or without the canvas or cloth.

I also claim, in combination with amalgamated plates, the use of iron wire gauze or screens, arranged on or above the plates, substantially as described for the purpose set forth.

67,843.—CORN PLOW.—Andrew Canfield, Lyon, Iowa. I claim the adjustable beams, A, with joint at R, and the open link, C, with the slotted bar, D, with the claps, E, E, being connected, arranged and operating substantially as and for the purposes above set forth and described.

67,844.—CORN PLOW.—Andrew Canfield, Lyons, Iowa. I claim, 1st, The double bolted clevis, B, for the purpose described.

2d, The adjustable stay bar, D, for the purpose above described.

3d, The combination and arrangement of a one-horse corn plow that may be readily changed to any required width, also changed to any number of shovels from one to three, making a single, double, or three-shovel plow.

67,845.—PORTABLE FORGE.—John M. Cayce, Franklin, Tenn. I claim the arrangement in a portable forge of the fire-pot, D, the side tubes, K, K, discharging currents of air that meet at the center of the fire pot with the bellows, H, and the tool shelf, L, substantially as and for the purposes specified.

67,846.—SPORTING LIFE BOAT.—John M. Cayce, Franklin, Tenn. I claim the braces, G, G, in combination with the frame, B, B, rods, H, keys, g, g, and reel, A, substantially as and for the purpose described.

2d, The floats, K, K, in combination with the arms, I, I, attached to them and to the boat, substantially as described.

67,847.—LIDS FOR PAILS, KETTLES, ETC.—S. B. Cox, Buffalo, N. Y. I claim the combination with the grooved india-rubber ring, the fasteners, and the vessel and its cover of the whole arranged and combined substantially as herein described, the flexible conductor pipe, C, secured to the said cover or lid by the screw joint, D.

67,848.—CORN-CANDY CUTTER.—David Davenport (assignor to Henry C. Wilkins, Albany, N. Y.). I claim the traversing block, E, carrying the knives, K, K, crossing each other and operated by the spring, S, S, and treadle, T, to cut the cakes of candy entirely across, in each direction, at one operation.

Also, the combination of the subject matter of the above claim with the dotted plate, B, the recess, A, beneath it, as described.

67,849.—TUNNEL.—Joseph Dixon, New York city. I claim a subterranean or submarine tunnel, the walls and roof of which are constructed of rectangular metallic plates, each one of which has a lip or flange raised up around its four edges, the plates being bolted together through the flanges arranged so as to break joints, and packed tightly at the seams, substantially in the manner and for the purpose specified.

67,850.—HARVESTER RAKE.—John A. Dodge, Auburn, N. Y. I claim, 1st, The combination, substantially in the manner described, of the continuously revolving rake and reel arms, all traversing the same track and controlled by the same guide, with a guide which lifts the beaters or reel rays suddenly after passing the grain back upon the platform to avoid disturbing the grain while the rake passes over the platform to take off the grain without being lifted.

2d, The combination, as described, of the arch, f, with removable block, i, for the purpose of adapting the beater arm to be changed to a rake arm, and vice versa.

3d, The arch or bend, f, in the rake arm, as and for the purpose described.

67,851.—HARVESTER RAKE.—John A. Dodge, Auburn, N. Y. I claim, 1st, The combination, substantially as described, of a cam plate and locking washer with a fixed spindle, for the purpose set forth.

2d, The combination, substantially in the manner described, of a series of rising and falling rake and reel arms revolving around a fixed spindle or axis with a cam guide to control their vertical movements, a cam plate to hold the rake down when raking off end, and locking washer to hold the cam plate firmly in position.

67,852.—HARVESTER.—John A. Dodge, Auburn, N. Y. I claim, 1st, The combination of the driving axle, flanged thimble, and sprocket wheel, all arranged for joint operation, substantially as described.

2d, The combination, substantially as described, of the loose driving wheel, the driving axle, the flanged thimble, the sprocket wheel, and the retaining collar, E, for the purposes set forth.

67,853.—HARVESTER RAKE.—John A. Dodge, Wm. H. Stevenson, and Howard S. Stevenson, Auburn, N. Y. We claim, 1st, The combination, substantially as described, the combined rake and reel arms with the collar, the cam groove, and the fixed rake post.

2d, The combination, substantially in the manner described, of the cam guide and rake post, whereby the flanged collar, to which the raking and reel rays are attached, can be removed by detaching the cam guide from the rake post.

67,854.—MEAT CHOPPER.—Augustus F. Doebert, Lancaster, N. Y. I claim, 1st, The combination and arrangement of the set screws, K, K, and rubber cushions, L, L, with the timbers, E, E, carrying the knives, D, D, for the purpose and substantially as set forth.

2d, The revolving chopping block, B, having an intermittent revolving movement and a ratchet wheel, L, connected therewith, in combination with the pawl, J, and crank, E, for the purpose and substantially as herein described.

67,855.—MOLDERS' FLASK.—Mathew M. Donnell, Cincinnati, Ohio. Antedated Aug. 11, 1867. I claim improved molders' flask with adjustable ends, constructed in the manner substantially as and for the purpose set forth.

67,856.—MOLDERS' FLASK.—Mathew M. Donnell, Cincinnati, Ohio. Antedated Aug. 11, 1867. I claim the combination of the lug, F, with its countersunk hole, f, in combination with the pin, E, with its waist, e, when the two are united and held together by soft metal, in the manner described.

67,857.—MODE OF FORMING A STEEL SURFACE SHEET AND BAR IRON.—Joseph W. Ellis, Pittsburgh, Pa. I claim the herein described method of forming a cast steel surface on bars of sheets of wrought iron.

67,858.—CLOTHES WASHER.—F. Ernst, San Francisco, Cal. I claim placing the fabrics to be washed between perforated plates or sieves, E and D, in a closed vessel of any suitable construction, so that a vacuum, F, may be created beneath the lower plate, substantially as described.

67,859.—METAL CAN FOR PUTTING UP ALKALIES.—Horace Everett, Philadelphia, Pa. I claim the within described can composed of a sheet-iron cylinder with folded and compressed ends, and cover, and bottom adapted to the said ends, all as set forth for the purpose specified.

67,860.—SEEDING CULTIVATOR.—James B. Ewell, Baltimore, Md. 1st, I claim the detachable swivelling front truck constructed and combined with the frame, as described.

2d, I claim the combination, substantially as described, with the main frame of the diagonally-arranged plows, having drag bars of varying lengths.

3d, The combination, substantially as described, of the diagonally-arranged rocking lever and cams with the vertically moving plow beam, L.

4th, The combination, as described, of the diagonally-arranged hopper and feed cylinder with the frame.

5th, The combination of the diagonal seeding cylinder, the driving gear, and the shipping mechanism, with the main frame and driver's seat, as and for the purpose described.

6th, The combination, substantially in the manner described, in a seeding cultivator, of a seed hopper, a feeding cylinder, and a series of plows all arranged diagonally to the path of the machine.

67,861.—HOOKS AND TERRETTES.—William R. Ferguson, Marcellus, Ill. I claim a hook, F, and terretts, G, G, having bases, D, C, made to fit the outer layer, A, of the back pad, and secured to it by means of rivets, h, h, h, and washers, J, J, J, substantially as and for the purpose herein specified.

67,862.—ORE-ROASTING FURNACE.—George B. Field, New York city. 1st, I claim the tube, G, in connection with the agitating apparatus, substantially as and for the purpose described.

2d, The induction pipe, H, having its extremity bent upward, substantially as and for the purpose specified.

3d, The introduction of water or steam inside of hollow shelves, rakes, or agitators for the stirring or manipulating of ores in ore-roasting furnaces, substantially as and for the purpose specified.

4th, The introduction of steam generators in the inside of roasting furnaces for the purposes specified.

67,863.—APPARATUS FOR DISTILLING AND RECTIFYING SPIRITS.—André Foubert, New York city. 1st, I claim the agitating condenser, formed with the diaphragms, h, the vapour pipes, i, the caps, k, and pipe, o, supplying water for cooling the liquid on the diaphragms, as and for the purpose specified.

2d, The arrangement of the still, d, the agitating condenser, n, the rectifying column, p, and the condensers, a, and t, as and for the purposes specified.

67,864.—APPARATUS FOR DISTILLING SPIRITS.—André Foubert, New York city. I claim the still, a, into which the diaphragms, g, h, pipes, k, and caps, b, are introduced, the water being returned to the still by the pipes, m, n, and the nature of the liquid on the diaphragms being regulated by water flowing through the pipes, o, o, as set forth.

67,865.—MACHINE FOR MAKING BUCKLES.—Merwin Fowler (assignor to Turner, Seymour and Juds), Wolcottville, Conn. I claim the series of dies, constructed and arranged substantially as specified, and acting successively to tend up a piece of wire into a buckle bow or frame, substantially as set forth.

67,866.—BOILER GAGE COCK.—John French, Newport, Ky. 1st, I claim the special valve stem, A, in combination with the body of the cock, C.

2d, The spiral valve stem, A, the button or cup, B, in combination with the body of the cock, C, substantially as described.

67,867.—STEAM-ENGINE OIL CUP.—F. H. Furniss, Cleveland, Ohio. 1st, I claim, in combination with an oil cup, a pawl, and ratchet, so arranged as to operate the key or plug of said oil cup, substantially as set forth.

2d, The pendulum, F, ratchet wheel, G, and pawl, K, in combination with the plug, substantially as and for the purpose set forth.

3d, The gate or regulating screw, L, and plug, D, in combination with the oil cup, substantially as and for the purpose described.

67,868.—MARBLE CEMENT.—G. G. Gariboldi, Buffalo, N. Y. I claim a marble cement, made, applied, and used in the manner, substantially as herein described.

67,869.—COOLER FOR LIQUORS ON DRAUGHT.—Joseph Gateley, Philadelphia, Pa. I claim the cooler, A, suspended from beneath the faucet, B, or tap hole, or other opening through which liquors are drawn, from their containing vessels, substantially as shown and described.

67,870.—TUCK MARKER FOR SEWING MACHINES.—H. C. Goodrich, Chicago, Ill. 1st, I claim providing a tuck marker to be used upon a sewing machine, with a flange or lip, b, arranged in relation to the creasing device, and operating substantially as and for the purposes set forth.

2d, I claim, in combination with a tuck marker provided with a flange or lip, b, the arrangement of a gage, D, provided with the projections, E, F, substantially in the manner and for the purposes described.

3d, The combination of the tuck marker, A, provided with the lip, b, and cap, E, with the combination of the gage, D, provided with the projections, E, F, when arranged and operating substantially in the manner and for the purposes described.

67,871.—PLATFORM SCALE.—W. P. Goodman (assignor to Davis, Lawrence & Co.), Dublin, Ind. 1st, I claim the balance weight upon the end of the steel-yard beam, above the level of the fulcrum, when constructed with a cap, B, for pieces such weights as may be necessary in the adjustment of the steel-yard beam, and cap, B, substantially as described.

2d, The combination of the cup, B, and cap, B1, when the latter is constructed with its sides of unequal weight, substantially as and for the purpose set forth.

3d, The corner irons, K, supporting the hooked and notched hanger, K1, in combination with the notched blocks, K2, supporting the platform levers, substantially as set forth.

4th, The bars, F, G, H, and I, constructed with an eye in the end, and knife-edged bearing, H, in combination with the rocker block, K2, on which they are suspended, substantially as described.

5th, The combination of the rocker-block, N3, ball blocks, N, balls, N1, and check blocks, L1, substantially as set forth.

6th, The combination of the frame, L, check block, L1, and rods, M, substantially as and for the purpose set forth.

7th, The combination of the shears, O, with flns, O1, and the notched pivots, P, substantially as and for the purpose set forth.

67,872.—CLOTHES LINE REEL.—G. B. Griffin, Madison, Wis. 1st, I claim the frame, A, the reel, B, B1, B2, the line, C, and the blocks, E, E, when combined and arranged as described.

67,873.—MOP HEAD.—H. M. Guild, Springfield, Mass. 1st, The arrangement of the jaws, A, B, hinged at C, and having the threads a, a, etc., of the screw cut thereon, in combination with the nut, E, arranged so as to fit said screw threads, a, a, and to bring together the jaws, A, B, by turning the end holding the mop, substantially as shown and described.

67,874.—APPARATUS FOR ATTACHING WEIGHTS TO SUBMARINE ARMOR.—David Hale, assignor to himself and A. Hale, Boston, Mass. I claim a weight-holding and attaching device for submarine armor, the same consisting of the box, divided into weight pockets or compartments, and having eyeletted flanges or securing it in place, substantially as shown and as described.

67,875.—MINERS' PICK.—H. M. Hamilton, New York City. Antedated August 1, 1867. I claim a pick or mattock, constructed with an eye open at each end, and whose sides are partly parallel and partly flaring, and adapted to the introduction of a handle whose sides are of conical form, and whose flaring sides are adapted to wedge in said eye, substantially as described and represented.

67,876.—CURTAIN FIXTURE.—C. T. Herrick, Independence, Iowa. I claim the cam, E, provided with a groove in combination with the cord, I, yoke, C, and rail, A, substantially as and for the purpose set forth.

67,877.—CAR VENTILATOR.—Robert Hitchcock, Springfield, Mass. I claim the combination of the valve, E, having the cap, c, with the case, A, having pieces, C and C', and vent hole, F, the whole being constructed and arranged substantially as herein described.

67,878.—SHAFT COUPLING.—Hiram A. Hurd, Seymour, Ct. I claim a coupling on the face of each part, of which are formed projections, E, E, and recesses, D, D, one side, a, of each of the projections of a dovetail form, the other side, a, at right angles, the two parts set together and secured by key, G, inserted between the right angles or parallel sides, substantially as herein set forth.

67,879.—BRICK MACHINE.—W. G. Hyndman, Cincinnati, Ohio, assignor to himself and Henry Martin. I claim the "wiper," D, with its flange, d, connected and operating substantially as and for the purpose herein specified.

I also claim the construction of the outlets, G, G, with the rounded or chamfered corners, g, g, and abrupt corners, h, h, substantially as and for the purpose herein set forth.

I also claim the conical or tapering die rollers, n, n, for the purpose herein set forth.

I also claim the arrangement of the rollers, n, n, so as to be adjustable out and in, between the rollers, m, m, substantially as and for the purpose herein specified.

I also claim the device for fastening the cloth covering around the die rollers, consisting of the longitudinal and annular grooves, r, r, t, and fastening strips, u, of wood, or equivalent, substantially as set forth.

67,880.—CEMENT FOR LINING BARRLS.—Samuel H. Jones, assignor to himself and Charles W. Brady, Sandy Spring, Md. I claim the mixture and cement of lime, chalk, alcohol, turpentine, and water, in their several proportions, as herein described, and for the purposes set forth.

67,881.—THREAD WAXER FOR SEWING MACHINES.—George F. Kendall (assignor to E. M. Dickinson & Co.), Fitchburg, Mass. I claim the arrangement and combination of the rotary elastic disks, g, h, with the shouldered shaft or pin, the collar, the nut and the screw of the pin, the whole applied to or arranged with the trough and the depresser, as set forth.

I also claim the construction of the trough, with the shoulder, a, at its bottom, and with the rotary depresser applied to the trough, so as to operate with such shoulder as set forth.

67,882.—HARVESTER.—L. G. Kniffen, Worcester, Mass. 1st, I claim the combination, substantially as described, with the main axle

of the main gear wheel, C, the spring-ratchet, c, the eccentrically slotted tubular bed piece, D, and the shipping lever, C', for the purpose of throwing the mechanism into and out of gear.

3d, The combination, as described, of the main gear-wheel, the counter-shaft, carrying gears of different sizes, and a shipping lever, with the crank shaft and its pinions, all the axes being arranged with their axes parallel to each other, for the purpose of changing the speed to adapt the machine to either reaping or mowing.

67,883.—HARVESTER.—L. G. Kniffen, Worcester, Mass.

1st, I claim the shoe, L, constructed and arranged to operate as and for the purposes described.

2d, The combination with the hollow vibrating coupling arm, through which the pitman vibrates endwise, of the shoe clamping and oscillating around the coupling-arm, all the parts being constructed and arranged for joint operation, in the manner described.

3d, The combination, as described, of the finger-beam, the detachable hinged shoes, the coupling arm, and the brace-rod, with the tubular bed piece, for the purpose of changing simultaneously from a front to a rear cut machine, and from a mower to a reaper, or vice versa.

67,884.—HARVESTER.—L. G. Kniffen, Worcester, Mass.

1st, I claim the arrangement as described, in a two-wheeled hinged jointed harvester, of the swinging raker's seat, with respect to the tubular main frame, drawn in and reversible couplings, as set forth.

2d, I claim the combination of the main frame and coupling arm, with the adjusting spring catch, V, as and for the purpose described.

3d, The driver's or raker's seat, constructed of independent springs, as described.

67,885.—HARVESTER.—L. G. Kniffen, Worcester, Mass.

1st, I claim the socket-plate, O, constructed to act both as a support for the lifting and tilting mechanism, and as a detent to hold the finger-beam vertical when folded for transportation, substantially as described.

2d, The combination of the lifting lever, with the swinging ratchet arranged and operating as described.

3d, The combination and arrangement substantially as described, of the socket, the lifting lever, and the swinging ratchet with the main frame, and cutting apparatus.

4th, The combination, substantially as described, of the lifting lever, the tilting lever, and the hand lever, for the purpose of either lifting or tilting the cutting apparatus.

67,886.—TURNING AXLES.—George S. Knight, Syracuse, N. Y.

I claim an improved machine for turning axles and shafting, composed of the movable jaws, B and C, cutters or "clamp mills," F and G, and screw, D, or their respective equivalent, all made arranged and operating substantially as and for the purpose herein shown and described.

67,887.—CIGAR MACHINERY.—W. Kramer, Milwaukee, Wis., and Joseph Wise, New York City.

1st, We claim the table, c, apron, e, and mold, d, in combination with the roller, i, substantially as and for the purposes set forth.

2d, A removable mold for the reception of the filling tobacco, in combination with an apron passing into such mold, substantially as and for the purposes set forth.

3d, The arrangement of the roller, i, stock, h, table, c, mold, d, and tightening roller, g, for the apron, e, as and for the purposes set forth.

4th, The roller, i, fitted and actuated substantially as specified, in combination with the cloth, o, and roller, p, as and for the purposes set forth.

67,888.—HARVESTER RAKE.—I. Lancaster, Baltimore, Md.

I claim the application to reapers with grain binding attachment, having the platform, A, the rear platform, B, and the draft rod, J, in combination with the fender, constructed and operated substantially as described, and for the purpose mentioned.

67,889.—HINGE.—George W. Lane, Plantsville, Ct.

I claim the two parts of the hinge, A and B, constructed so as to be attached together, and operate in the manner described.

67,890.—PLOW.—W. E. Levey, Cincinnati, Ohio.

1st, I claim the mode of adjusting the land of the plow, substantially as set forth and described.

2d, I claim the peculiar form and curves of the mold board, B, substantially as set forth and described.

3d, I claim the particular form and construction of the upright or sheath, G, with the rock, I, the rod, J, in combination with the adjustable bar, K, K', with the nut, L, and pin, O, as set forth and described.

4th, I claim adjusting the angle of the plow to any required slope of ground, or to level land, by means of the adjusted shackle bar, or its equivalent, substantially as set forth and described.

67,891.—WINDOW FASTENER.—Jonathan Luther, and Alexander Marsh, Worcester, Mass.

We claim the peculiar formation of a base or main piece with shoulders and lips, as shown in figs. 1 and 3, in combination with spring, F, lever, C, C', and pin, E, as shown in fig. 2, for the purpose as above described.

67,892.—NIGHT CART.—John H. Lynch, Baltimore, Md.

1st, I claim the box, A, provided at the rear with a tight fitting shutter, I, operated by means substantially as described.

2d, The door, C', with packing membrane and rounded corners, and secured substantially as described.

67,893.—ANIMAL TRAP.—H. Mansfield, Wassau, Ind.

I claim the combination of thimble, D, cup, C, cord, I, pulley, J, hooks, o, loop, H, and standard, B, when constructed substantially as and for the purpose set forth.

67,894.—MODE OF VENTILATING AND WARMING RAILROAD CARS.—A. J. Marshall, Warren, Va.

1st, I claim, in combination with a pneumatic engine, which is arranged in front of a locomotive, of a driving engine, by means of an engine operating independently of the locomotive-driving engine, I claim the arrangement of a primary conduit, constructed as described, with flexible connections, and forming the passenger coach, and adapted also to serve as a medium through which to supply and condense air in such coach, substantially as described.

2d, In combination with a primary conduit, C, for conducting air, and forming the roof of a railway coach as described, I claim the secondary conduits, E, arranged within the car, and communicating with the said conduit for the purpose of abundantly distributing pure air to service pipes, b, b', which are provided with registers, c, and arranged substantially as described.

3d, In combination with a railway coach having a double roof, or air conduit, communicating with and receiving air from a forcing engine, arranged upon the locomotive, I claim means substantially as described for warming said air, and distributing it throughout the coach, substantially as described.

4th, The warm air distributing conduits or foot rests, g, g', applied beneath or between the seats of a railway coach, provided with registers, and communicating with air-heating apparatus, substantially as described.

67,895.—PAPER FASTENER.—John W. McGill, Washington, D. C.

I claim the within-described fastener, made of a single piece of strip of sheet brass, or other flexible material, bent into a T-shape by having the ends which form the legs or shanks turned over and under and run through a hole in the enlarged centre of the head of the fastener to secure said legs or shanks tightly together, so that when said legs or shanks are run through the paper or other material designed to be bound and turned down on the other side, they will not enlarge the hole in the paper, but will lie snugly together and make a close joint, substantially as herein set forth and described.

67,896.—OILER AND FILLER.—Alexander Millar, Roxbury, Mass., assignor to himself and Alfred Ordorpe, Medford, Mass.

I claim, in combination with the reservoir ejecting pipe, cylinder, and piston, the raise bottom, c, shallow chamber, d, and valve, f, constructed and arranged to operate substantially as set forth.

67,897.—CAR SPRING.—John S. Miller, assignor to himself and L. L. Davis, Springfield, Mass. Antedated August 5, 1867.

I claim the combination and arrangement of the spring for cars, etc., formed of a cushion of air, in a case, C, of rubber, or similar elastic material, placed within a cylinder, A, operated upon by a piston, B, the whole constructed and operated substantially as described.

67,898.—CARTRIDGE BELT.—Anson Mills, U. S. A., Fort Bridger, Utah Territory.

I claim the combination and arrangement of a series of receptacles, e, e', for metallic cartridges, with a pliable band or belt, A, formed and fitted to be worn about the body, substantially as herein set forth.

67,899.—PEN HOLDER AND ERASER.—Wm. A. Moore (assignor to John G. Powell, John M. Huddar, and John M. Hudders), Philadelphia, Pa., assignor to Wm. A. Moore.

1st, I claim the combination of the eraser, D, with the tip, B, and the handle, A, of a penholder, as shown and specified, and for the purpose set forth.

2d, I claim the combination of the eraser, D, fig. 2, cap or shield, H, and handle, s, of a pen holder, as shown, and for the purpose specified.

67,900.—STOVEPIPE SHELF.—O. B. Olmsted, Beloit, Wis.

1st, I claim an improved stove pipe shelf, A, A', constructed of a perforated disk in two parts.

2d, In combination with the foregoing, I claim the collar, K, with the projections, D, D', as shown and specified.

3d, I claim the ribs, C, C', when the whole is constructed substantially as herein set forth, for the purpose specified.

67,901.—MACHINE FOR CLEANING WOOL.—S. R. Parkhurst, Bloomfield, N. J.

1st, I claim the carding cylinder, a2, in combination with the cylinder, for g, stripper, h, or i, and picker cylinder, d, substantially as and for the purposes specified.

2d, I claim the doffer, e2, in combination with the mechanism substantially as specified for opening and cleaning wool or other fiber, whereby the said fiber is delivered from the picking or cleaning mechanism in the form of a silver or bat, substantially as set forth.

67,902.—FENCE.—William Pettingell, Painesville, Ohio.

1st, I claim the base herein described, and constructed as shown in figs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

upon which the trunk may be rolled, while they protect the body of it from contact with the ground.

67,906.—SEWING MACHINES.—T. K. Reed, East Bridgewater, assignor to David Whittemore, North Bridgewater, Mass.

1st, I claim the combination with hook, needle, and cast-off, the supplemental presser-foot, constructed and operating substantially as and for the purpose set forth.

67,907.—APPARATUS FOR MAKING NITROUS OXIDE, ETC.—M. B. Renslow (assignor to himself and Flavin Searle), Springfield, Mass.

1st, I claim controlling the amount of heat used in generating nitrous oxide or other gases, by means of a regulating or changeable outlet, p1, applied to a gas receiver having a variable capacity, when used in combination with a device for regulating the flame beneath the generating retort, substantially as described and herein set forth.

2d, I claim the variable receiver, a, having a changeable outlet, p1, in combination with the rod, c, and the lever, f, all constructed and operating substantially as described and for the purposes herein set forth.

3d, I claim the variable receiver, a, having a changeable outlet, p1, in combination with the rod, e, the bar, d', all constructed and operating substantially as described and for the purpose specified.

4th, I claim, in combination with the lever, f', the spring, y, and piece, i, having the pin, y', all constructed and operating substantially as described, and for the purpose herein specified.

67,908.—PLATFORM SCALE.—W. W. Reynolds (assignor to Howe Scale Company), Brandon, Vt.

I claim the arrangement of the links, H, as shown and described, to wit: having the links fitted in slats, I, in the bed or framing, A, and resting on pins, J, as shown in figs. 3, 4, and 5, of the drawings.

67,909.—APPARATUS FOR THE MANUFACTURE OF VINEGAR.—John Richardson, New Haven, Conn.

I claim the arrangement of the self-dumping bucket, so as to operate to empty into the generator, substantially as and for the purpose specified.

67,910.—MACHINE FOR THE MANUFACTURE OF HORSESHOES.—A. J. Roberts, Boston, assignor to himself and B. F. Brown, Dorchester, Mass.

I claim, in combination with the series of movable formers or pattern blocks, the swinging die-block, e2, when arranged to operate as set forth.

Also, in combination with the swinging die-block, the auxiliary presser rolls, d2, actuated by the levers which carry the rolls, v, substantially as described.

Also, in combination with revolving formers and the bending rolls, the calk benders, operating substantially as set forth.

Also, in combination with the movable formers and bending mechanism, the dischargers, g2, operated substantially as described.

Also the arrangement of the formers around the periphery of a wheel grooved centrally of its periphery, as and for the purpose substantially as described.

Also the sliding feed-carriage with its spring pawls, when arranged in connection with the cutting and bending mechanism, and when operated by the cam on the main shaft substantially as described.

Also, in combination with the bending mechanism, the gripping jaw, e, for holding the bar while being cut, and the tooth, r, for holding the bar at its centre to prevent it from aliding endwise as the bending-rolls begin to act, substantially as set forth.

Also the cutting-blade, o, when arranged to operate in combination with the feeding mechanism, movable former blocks, and bending rolls, and when operated by the cam on the main shaft, substantially as described.

Also, in horse-shoe machine, the described arrangement of the feeding, cutting, gripping, and bending mechanism, to be all operated directly from the main driving shaft, substantially as described.

Also the arrangement around the periphery of a wheel of a series of formers or pattern blocks, operating in succession, with the described bending mechanism substantially as set forth.

67,911.—TRUSSES.—Lloyd Roberts, West Haverford, Pa.

I claim the pad, B, rendered adjustable to or from the bar, A, substantially as and for the purpose described.

67,912.—APPARATUS FOR RECTIFYING SPIRITS.—August Root, New York City.

I claim the rectifying condenser formed of the case, n, i, with the segmental rings placed alternately, to arrest the vapors as they pass up through said condenser, as and for the purposes set forth.

67,913.—TRIP HAMMER.—T. J. and R. L. Root (assignors to Thomas J. Root), Andover, Ohio.

We claim, 1st, The vibrating head, E, grooved vertical shaft, F', and vibrating rod, G, in combination with the rock head, B, and treadle, F2, as and for the purpose specified.

2d, The lever, T, constructed as described, grooved shaft, F', toothed plate, V, rod, A, as described, and plate T2, in combination with the vibrating rod, G, ball, H, set screw, I', and bearing, S, arranged so as to operate as and for the purpose specified.

3d, The ball, H2, and set screw, J', (applied to the rod, H), bearings, R, and treadle, F2, in combination with the subject matter of the 2d claim, as herein stated.

The combination of the adjustable bearings, R, R, and S, vibrating rod, G, and rod, H, with the rock shaft, O, and treadle, F2, so as to operate substantially in the manner and for the purpose specified.

67,914.—HARVESTER.—Isaac S. and Henry R. Russell, New Market, Md.

We claim, 1st, The vibrating support, H, substantially as and for the purpose described.

2d, The wheel, A, having its axle operating in the pivoted socket, C, substantially as and for the purpose described.

67,915.—COMBINED GATE AND FENCE.—John W. Sanford, Bath, N. Y.

I claim the manner of putting together these double gates and posts with fence in combination, with sills to be set in the ground.

67,916.—BROOM HEAD.—John W. Sanford, Bath, N. Y.

I claim the combination of the rod, c, screwed into the handle, the adjustable nut, e, cap piece, d, and band, h, fastened to the rod, c, all as and for the purposes specified.

67,917.—HORSE HOES.—George W. Sawin, Nashua, N. H.

1st, I claim in the combination as well as the arrangement of the rake, I, with the blades, D, D', A, and A', made substantially as described and for the purpose set forth.

2d, The combination and arrangement of the gathering in blades, A, A', with blades, D and D', made substantially as described and for the purpose set forth.

3d, The combination of the movable blade, B, with the adjustable bars, C and C', made substantially as described and for the purpose set forth.

67,918.—SPEAKING TUBES.—J. B. Shannon, Philadelphia, Pa.

I claim the flap or plate, D, hinged to and arranged on the corner of the mouth-piece, A, in respect to the opening, d, in the said cover, as and for the purpose set forth.

67,919.—REFLECTORS FOR WINDOWS.—Charles G. Smith (assignor to himself and Alexander Turner), North Bridgewater, Mass.

I claim the duplex adjustable reflector substantially as described, that is, as composed of the box, A, or its equivalent, the two mirrors, B, B, the arm, C, and its clamp screw, E.

I also claim the combination of the duplex reflector, made as described, (viz.: of the box, A, the mirrors, B, B, arm, C, and clamp screw, E) with the supporter, composed of the screw, E, and a bar or bars, D, E, applied together and to the arm, C, substantially as specified.

67,920.—METALLIC TIPS.—Benj. F. Sparrow, Boston, Mass.

I claim the metallic upper and sole tips or guard, as made without any central flange, and with holes through it to receive screws, and arranged so that the screws may enter the outer edge of the sole when covered by such tips.

67,921.—PRESERVING ANIMAL AND VEGETABLE SUBSTANCE.—Lewis H. Spear, Braintree, Vt. Antedated August 15, 1867.

1st, I claim subjecting animal or vegetable matter to the action of a solution of a mixture of borax (borate of soda) or any other compound of boracic acid, in connection with sulphite of soda or any other compound of sulphuric acid, in the manner substantially as herein described, for the purpose specified.

2d, I claim subjecting animal or vegetable matter to the action of a solution of sulphite of soda or any other compound of sulphurous acid, in the manner substantially as herein described, for the purpose herein specified.

3d, I claim subjecting animal or vegetable matter to the action of a solution of borax (borate of soda) or any other compound of boracic acid, in the manner substantially as herein described, for the purpose herein specified.

4th, I claim subjecting animal or vegetable matter to the action of a solution of boracic acid, in the manner substantially as herein described, for the purpose specified.

67,922.—PENCIL SHARPENERS.—E. Spencer, Lambertville, N. J.

1st, I claim the arrangement of the gripe, d, for preventing the points of the pencil sharpener from spreading, substantially as herein described.

2d, The filling, c, in the points of the pencil sharpener, for the purposes herein specified.

67,923.—COTTON GINS.—Charles Spofford and Charles H. Hergy, Boston, Mass.

1st, I claim the clearers, U, V, substantially as and for the purpose described.

2d, We also claim the yoke, Q, or its equivalent for connecting the clearers, U, V, and stripper, T, to secure their simultaneous action, substantially as set forth.

3d, We also claim bracing the stripper, T, to the upper clearer, U, to stiffen and retain the former in place, substantially as and for the purpose specified.

4th, We also claim the roller, L, with its groove, f, and apron, M, in combination with the grating, N, consisting of the slotted bar, O, and pins, 7, operated by screws, h, or otherwise for regulating the pressure of the breast beam against the periphery of the upper feed roll, H, substantially as described.

5th, We also claim the upper feed roll, H, constructed substantially as described, and for the purpose set forth.

6th, We also claim a feed roll, H, in which spiral metallic strips, y, are employed as and for the purpose set forth.

67,924.—MODE OF LIQUORING SUGAR IN CENTRIFUGAL MACHINES.—Richard T. Sprague, Boston, Mass.

I claim the use, with a centrifugal sugar bleaching machine, of a portable liquoring tank constructed and operating as described.

67,925.—FAUCET.—F. P. Striker, Buffalo, N. Y.

I claim the plug, B, in combination with the movable segment, G, and groove, E, operating substantially as described and for the purpose herein set forth.

67,926.—MEDICINE.—Louis Stroever, Philadelphia, Pa.

I claim a medicine for the cure of fevers, when the said medicine is made of the ingredients herein described, and about in the proportions specified.

67,927.—PERMUTATION LOCK FOR DOORS, ETC.—T. J. Sullivan, Rochester, N. Y.

1st, I claim a combination of the shaft, B, with the head, C, by the collar, D, and jaw, E, as herein set forth.

2d, I claim the combination of wheels to the frame, G, which is secured within the lock in the manner set forth so as to avoid extending the shaft through the door or removing them with the back plate, as specified.

3d, Combining the lever, H, with the dog plate, K, by the dog, q, in such a manner that while they are bound together each is allowed a free action, as set forth.

4th, The combination of the slide, L, with the dog plate, k, and lever, H, as and for the purpose specified.

5th, The combination of the cam disk, J, with the lever, H, slide, L, and dog plate, k, as specified.

6th, Discounting the heavy bolt work of a safe door from its operating shaft when the door is locked, as specified.

7th, The combination of the bent-arm, B, with the lever, H', and the bolt of the lock for the purpose set forth.

8th, The segment, Q, in combination with the dog, q', and wheels, F' F' F', as and for the purpose set forth.

67,928.—WATER METER.—J. D. Sumner, Lexington, Mass.

I claim the combination of the disk, B, flanged or tongued at or near its periphery and carrying the vanes or floats, e, with the case, A, recessed and grooved at its interior substantially in the manner and for the purposes herein set forth.

67,929.—DUMPING PLATFORM FOR HARVESTER.—Daniel M. Swartz, Lewisburg, Pa.

I claim a dumping platform, B, revolving intermittently backward from the motion of the harvester and provided with one or more rows of teeth, C, C, substantially as and for the purpose herein specified.

I also claim the cog and ratchet wheel, H, provided with the holes, h, h, and groove, i, in combination with the spring pawl, I, and operating lever, L, substantially as and for the purpose herein specified.

I also claim the combination of the revolving platform, B, ratchet wheel, H, spring, I, and lever, L, substantially as and for the purpose herein specified.

67,930.—BED BOTTOM.—Charles B. Tucker and L. S. Babbit, Chicago, Ill., assignors to L. S. Babbit.

I claim the arrangement of the rollers, D, D, in combination with levers, F, F', rods, E, E, and springs, C, C, C, constructed to operate under slats, I, substantially as and for the purpose set forth.

67,931.—DEVICE FOR SOLDERING CANS.—J. C. Underwood and Peter Johnson, (assignors to themselves Charles A. Valle and David Norrbyke), Richmond, Ind.

1st, We claim the spring, a, in construction with the expander shaft, D', bands, E, and hinges substantially as and for the purpose specified.

2d, The frame, F, disc, d, and adjustable spring guide, k, constructed and arranged as described for centering the can substantially as herein set forth.

3d, The combination and arrangement of the expander, D, frame, F, and rosin box, g, substantially as described for the purpose specified.

4th, The combination of the expander, D, and wheels, H, with the part, G, for distributing the rosin constructed and arranged to operate substantially as and for the purpose set forth.

67,932.—COFFEE POT.—J. C. Walker, Waco Village, Texas.

I claim the coffee pot above described, consisting of the boiler, A, tube, D, perforated at e e e, and box, E, having the perforated bottom, E', and tube G, all arranged and combined in connection with the pot, B, substantially as and for the purpose described.

67,933.—FRUIT LADDER.—S. S. Whaley, Tidouite, Pa.

1st, I claim the arrangement of the ladder upon the trundling frame in combination with the platform, A, arranged so as to be adjustable and fixed thereon substantially as herein set forth.

2d, The receptacle formed by combination of the trundling frame, B, and platform, A, in combination with an adjustable ladder, substantially as set forth.

3d, The harness, c, combined with a ladder so as to support the person thereon substantially as set forth.

67,934.—BREAST STRAP SHIELD.—H. F. Wilson, (assignor to himself and George Esmond), Fort Wayne, Ind.

I claim the revolving hook, A, in combination with the flange, B, the same being constructed in the manner and for the purpose substantially as described.

I also claim hook, A, flange, B, frame, C, and roller, D, the whole being combined and constructed in the manner and for the purpose substantially as described.

67,935.—STEAM GENERATOR.—C. O. Winegar, Drytown, Cal.

I claim connecting each series of tubes to separate and independent chests at both ends so that each series of tubes can expand and contract without straining the others or being strained themselves.

I also claim arranging the tubes in each chest so as to form a connection between all the chests and all the tubes used substantially as described.

67,936.—STEAM ENGINE GOVERNOR.—J. H. Wooster, Strykersville, assignor to himself and Robert Dunbar, Buffalo, N. Y.

1st, I claim the arrangement of the governor balls, A, sliding on rods, B, radiating from the driving shaft of a steam engine and held by coiled springs, C, their arms, h', connecting with the eccentric which operates the cut off valve in such manner that the outward movement of the

67,953.—CENTRIFUGAL MACHINE OR HYDRO EXTRACTOR.—E. C. Cleveland, Worcester, Mass.
 1st, I claim the hydro extractors and the basket when hung for operation, substantially as and for the purpose described.
 2d, I also claim, in combination with the above, the counter weights applied to the basket shaft, substantially as and for the purpose specified.

67,954.—DEVICE FOR PREPARING PLATES FOR SPRINGS.—Jas. B. Cleveland, Hackensack, N. J.
 I claim the combination of the dies, C, Cl, blocks G, fixed dies, d, d, in the block, E, slotted lever, D, wheel, C, and roller, A, A, as herein set forth for the purpose specified.

67,955.—CORN AND CANE HARVESTER.—E. H. Clinton, W. Prather, and H. O. Hutchinson, Iowa City, Iowa.
 1st, We claim the discharging frames, I, applied to the frame, A, and actuated through the medium of the levers, J, substantially as described.
 2d, The combination of the circular saws or cutters, H, arms, N, N, connected with the shafts, M, provided with the arms, u, at their upper ends, and discharging frames, I, all arranged in connection with the mounted frame, A, to operate substantially in the manner and for the purpose set forth.

67,956.—CHAIR.—Francis J. Coates, Cincinnati, Ohio.
 I claim the combination and arrangement of the seat, F, pivoted centrally to the sides, C, and having upon its under side the quadrant-shaped sector, I, provided with teeth, a, upon its circular edge, and the spring lever, J, having the prong, b, hinged to the forward rail, D, substantially as described for the purpose specified.

67,957.—CRANK CONNECTION.—Ed. R. Cole, Pawtucket, R. I.
 1st, I claim, in combination with the sliding box, E, and grooved guide of the shaft, A, the adjustable sides for the groove or way of the sliding box, substantially as and for the purpose specified.
 2d, I also claim the adjustable sides for the groove or way of the sliding box, substantially as and for the purpose described.

67,958.—DIE FOR CUTTING THREADS ON TUBES.—Wm. T. Cole (assignor to Jacob F. Hunter and Peter P. Keller), New York City.
 1st, I claim the combination of the base plate, A, pivoted die plate, B, spring, C, lever, H, and die, I, arranged substantially as described.
 2d, The combination of the above of the clutch, C, applied and operating in the manner and for the purpose specified.

67,959.—ANIMAL TRAP.—Isaac N. Connell, Spencer's Station, Ohio.
 1st, I claim the combination and arrangement of the trigger plate, K, arm, M, supporting bar or bolt, I, with each other and with the pivoted platform, H, and box, A, of the trap, substantially as herein shown and described and for the purpose set forth.
 2d, The combination of the spring, N, with the pivoted platform, H, and bar or bolt, I, substantially as herein shown and described, and for the purpose set forth.
 3d, The removable pivoted partition, O, and weight, P, arranged in relation with the trigger plate, K, pivoted platform, H, bar, I, and trigger, L, as herein set forth for the purpose specified.

67,960.—CHURNING MACHINE.—Gurnsey Crandell, Rhinebeck, N. Y.
 I claim the combination of the sliding bar, E, connecting rod or rods, F, crankshaft, G, fly wheel, H, and operating rod, I, with each other and with the frame, A, substantially as herein shown and described and for the purpose set forth.

67,961.—COTTON PRESS.—Jas. G. Cummings, Columbus, Miss.
 1st, I claim the bevel wheel, C, provided with the projecting rim forming an annular track resting on rollers, h, h, and having the hub, i, for the passage of the screw, F, step, K, which bears the bevel wheel, C, and is secured to the frame, G, and trunk, A, when all are constructed and arranged as herein set forth for the purpose specified.
 2d, I claim, also, the shifting head block, B, in combination with the rollers, d, d, the rail track, e, e, and the trunk, A, arranged and operating substantially as and for the purposes herein described.

67,962.—CAR BRAKE.—John Davis, Alleghany City, Pa.
 I claim the sliding frame, o, clevis, 13, and pawl, 11, when used in combination with the hand lever, 14, provided with ratchet, o, chain, u, and shaft, g, provided with arms, p, 7 and 8, constructed, arranged, combined and operating in the manner, substantially as herein described.

67,963.—SLATE CUTTER.—T. R. Drummond, Hartford, Ct.
 1st, I claim the four sided box knife, F, the elastic block, G, and the cushion within the cutters on the block, D, arranged and operating substantially as described and for the purposes set forth.
 2d, In combination with the cutter box knife, F, I claim the springs, a, a, or their equivalents and also the use of springs under the cushion of the block, D, substantially as and for the purposes set forth.

67,964.—CHURNS.—C. L. Eggert, Lawrence, Kansas.
 I claim the combination and arrangement of the gear wheels, G, H, I, and shaft, C, D, E, with each other, with the dashers, J, K, and with the frame, E, and body, A, of the churn in combination with the double dashers, J and K, constructed, arranged and operated substantially as herein shown and described.

67,965.—SEWING MACHINE.—George Elmes, Chestertown, N. Y., assignor to himself and F. B. Wells, Canaan, N. H.
 I claim the reciprocating rod, A, provided with the incline, e, on the head, a, the pin, d, and the spiral spring, g, in combination with the driving wheel, C, and presser foot of a wax thread sewing machine, arranged and operating substantially as and for the purposes herein shown and described.

67,966.—OSCILLATING PISTON ENGINE.—W. H. M. Elrod (assignor to himself and G. L. Williams), St. Louis, Mo.
 1st, The oscillating piston, C, the hollow shaft, E, the oscillating valve, D, with its hollow valve stem, F, combined and arranged substantially as shown and described for the purpose of forming an oscillating piston steam engine as set forth.
 2d, I claim the lever, m, the disk, J, the arm, h, the lever, C, and the pins or studs, i, i, and k, k, arranged substantially as described for the purpose of reversing the motion of the piston as set forth.
 3d, I claim the chamber, G, on the side of the cylinder, substantially as shown and described.

67,967.—TRACE FASTENER.—G. W. Fink, Pleasant Plains, Ill.
 1st, I claim the cock eye or button, C, furnished with the eccentric groove, c, substantially as described.
 2d, The metallic loop, B, constructed to carry the prolongation of the trace, A, with the eye, b, fitted to receive the button, C, substantially as described.
 3d, The combination of the trace tongue, A, with the eccentric groove of the cock eye, substantially as described.

67,968.—CARRIAGE PROP.—William Finn, Poughkeepsie, N. Y.
 1st, I claim the standard, C, when provided with a dovetailed wedge shaped tenon, d, in combination with the plate, B, which has a wedge shaped dovetailed groove, c, in a circular projection, b, as set forth.

67,969.—APPARATUS FOR SOLDERING LEAVES TROUGHS.—Charles and George Fisher, Tecumseh, Mich.
 1st, We claim the construction and arrangement of the right angular claps, D, provided upon the inner end with a flange, b, and pin, pivoted to the lever, F, and actuated by means of the ratchet bars, F, substantially as described for the purpose specified.
 2d, We claim the cam washers, n, n, n, so as to throw or carry the levers, o, o, and claps, D, D, out from over the edge of the trough or box, A, when the said levers are raised up so that the gutter can be removed substantially as shown and described and for the purposes set forth.

67,970.—FISH FLAKE.—Joseph Foster, Beverly, Mass.
 I claim the arrangement of a sun screen, C, in combination with the frame of a fish flake suspended on posts, a, a, and operating substantially as and for the purpose described.

67,971.—CARBURETING APPARATUS.—E. J. Fraser, Erie, Pa.
 I claim the vessels, A and B, the water cylinder, C, the plate coil, D, and the retarding curtains, D, when the same are constructed, arranged and combined substantially as shown and described for the purposes set forth.
 2d, In combination therewith, I claim the air pipe, G, and the space, L, substantially as and for the purposes described.

67,972.—VOGUE SPRING.—John Freeland and Daniel Ward, New York City.
 We claim the improved vogue spring formed of a single metal plate split lengthwise nearly its whole length with both ends uncut and the divided parts spread apart in the middle coiled substantially as herein shown and described.

67,973.—MODE OF TREATING WATER TO PREVENT INCORUSTATIONS OF STEAM BOILERS.—M. A. Glynn, Havana, Cuba.
 1st, I claim the process of treating water for steam generators with bark of the rhizophora mangle, in manner and for the purposes substantially as above described.
 2d, The process of treating water for steam generators with said bark of the rhizophora mangle in combination with chloride of sodium or its equivalent in manner and for the purposes substantially as above described.

67,974.—OTLER.—J. H. Godwin, Scotland Neck, N. C.
 I claim an oil can constructed with a shallow cylindrical body and an inclined nozzle in combination with the spring, A, placed within the body of the said oil can, substantially as and for the purpose set forth.

67,975.—MACHINE FOR CUTTING AND GRINDING CORN FODDER.—Alexander Goodhart, Newville, Pa.
 I claim the combination and arrangement of the cutters, E, E, and teeth, 11, upon the vertical drum, D, working in an upright cylinder, A, provided with teeth, c, c, substantially as and for the purpose specified.

67,976.—PLOW.—C. W. Grant, Iona Island, N. Y.
 1st, I claim the supplemental share, G, and land slide, F, when used in connection with or applied to an ordinary tillage plow, substantially in the manner as and for the purpose set forth.
 2d, The supplemental or auxiliary share, G, applied to the share and mold-board, substantially as and for the purpose specified.
 3d, The two coulters H, H, applied to the beam and used in connection with the supplemental share, G, and land slide, F, substantially as and for the purpose set forth.
 4th, The supplemental strips, L, for the mold board, C, when used in combination with the supplemental share and land slide, substantially as and for the purpose specified.

67,977.—TOPS FOR COOKING STOVES.—James Grimes, Portsmouth, O.
 I claim the rim, B, constructed in one or more pieces secured to the lugs, b, b, of the plate, A, by means of screw bolts passing through the lugs, said holes being enlarged to admit of the expansion and contraction of the plate, A, independently of the rim, B, as herein shown and described.

67,978.—ROTARY ENGINE.—Melancthon Hamford, Boston Mass.
 I claim the herein described arrangement of the smaller piston, B, and large piston, B, provided with projections, f, as and for the purposes set forth.

67,979.—SAD IRON.—C. C. Hare, Louisville, Ky.
 1st, I claim the handle, B, provided with the curved shank, C, and pivoted brace, D, in combination with the curved socket, E, upon the iron, A, substantially as described for the purpose specified.
 2d, The iron, A, and handle, B, fitted together by means of the shank, C, upon the latter fitting into the socket, E, of the former on the shank, C, upon the former fitting into the socket, E, of the latter and retained position or released by means of the pivoted brace, D, substantially as described for the purpose specified.

67,980.—WASHING MACHINE.—G. W. Havermale, La Harpe, Ill.
 I claim the combination and arrangement of the crank shaft, F, gear wheel H, pinion, I, upon the shaft, J, and the balance wheel, k, and press board, B, and beater, D, as herein set forth for the purpose specified.

67,981.—PHOTOGRAPHIC APPARATUS.—D. H. Houston, Cambria, Wis.
 1st, I claim the securing the ground glass, F, by the spring, G, movable by means of the lever, H, substantially as described.
 2d, Securing the sensitive plate, E, in place when exposed in front of the ground glass, F, in the manner and by the means, substantially as described.
 3d, The grooved and numbered scale carried on the lid of the camera, substantially as described.
 4th, The employment of orange or yellow covered glass, a, which to focus the object in view, in manner and for the purposes substantially as described.
 5th, The construction of the diaphragm, D, as herein set forth, for the purpose specified.
 6th, The employment of the keys to secure the sensitive plate in place, in the carrying frame, with or without the slips, R, substantially as described.
 7th, The application of the spring, G, for securing the sensitive plate in the camera, substantially as described.
 8th, The employment of an adjustable spring, at one or both ends of the sensitive plate, whereby the same is secured or loosened at pleasure, in the carrying frame, substantially as described.
 9th, The application of the spring, P, and lever, Q, as attached to the carrying box, substantially as and for the objects described.
 10th, The carrying frame, B, constructed as described, when combined with the camera, A, as and for the purpose specified.

67,982.—MEANS TO PREVENT ROPES FOULING SHIPS' PROPELLERS.—Richard Harvey Hudson, Glasgow, Scotland.
 1st, I claim the disk, D, attached to the stern post or under post of a vessel, in manner and for the purpose substantially as described.

67,983.—BOAT-DETACHING TACKLE.—E. C. Hurlbut, Middle Haddam, and E. H. Snow, Hartford, Ct.
 I claim the combination and arrangement upon the bottom of the boat, of the standards, C, C, to which the hooks, F, F, are pivoted, the points of the latter passing through the perforations in the projecting lips, C, G, thereby securing the loops and ends of the chains, e, e, and operated by means of the pivoted clevis, E, and lever, D, pivoted to the standard, e, in the centre of the boat, substantially as described, for the purpose specified.

67,984.—MODE OF MANUFACTURING WATER PAILS AND OTHER HOUSEHOLD VESSELS.—John William Jarboe, Greenpoint, N. Y.
 I claim the manufacture of pails and other articles of household furniture, for holding water, etc., made of paper, in the manner substantially as herein shown and described.

67,985.—WATCH.—E. Jewell, Louisville, Ky.
 I claim the divided spring band, D, enclosing the works of a watch situated between the enclosing plates, its ends notched to fit over the main spring bar, C, substantially as described, for the purpose specified.

67,986.—SEEDER CULTIVATOR.—F. B. Johnson, De Witt, Iowa.
 1st, I claim operating the slide cut-off, F, by a bent lever, H, pivoted to a support, I, and actuated by the screw, D, substantially as herein shown and described, and for the purpose set forth.
 2d, Adjusting the movement of the slide cut-off, F, by means of a set screw, P, acting upon the lever, H, substantially as herein shown and described, and for the purpose set forth.
 3d, The combination of the stirrer, K, constructed as described, with the seed, A, and the zigzag or waved wheel, L, attached to one of the wheels, A, substantially as and for the purpose herein set forth.
 4th, The combination of the movable inclined seed board, E, with the bottom of the seed box, D, substantially as herein shown and described, and for the purpose set forth.
 5th, Attaching the plowbeams, m', to each other, and to the clevises, N, bolted to the axle, B, substantially as herein shown and described, and for the purpose set forth.
 6th, The combination of the bar, R, and bent lever, U, with the support and guide rod, V, and with the plow beams, m', substantially as herein shown and described, and for the purpose set forth.
 7th, The combination of the lifting foot lever, W, with the bent guide lever, U, and with the tongue, C, of the machine, substantially as herein shown and described, and for the purpose set forth.
 8th, The combination of the lifting and guide bar, O, with the plow beams, m', substantially as herein shown and described, and for the purpose set forth.
 9th, Attaching a catch, P, to the lifting and guide bar, O, substantially as herein shown and described, and for the purpose set forth.

67,987.—WRENCH AND PRUNING SHEARS COMBINED.—John S. Kalb, Fosteria, Ohio.
 1st, I claim the jaws, A, B, and rack, D, in combination with the spring, I, and stirrup, C, combined and operating conjointly, substantially as and for the purpose set forth.
 2d, I claim combining the pivoted jaws, A, B, and spring, I, with one or movable blades or cutters, arranged as and for the purpose set forth.

67,988.—PETROLEUM STILL.—E. G. Kelley, New York City.
 1st, I claim providing a still for petroleum or other hydro-carbon liquids, with two pipes, K, and L, for carrying off and separating the products of distillation, in the manner and by the means, substantially as described.
 2d, The cylindrical boiler, B, in combination with the inclined vessel, C, in which are inclined diaphragms, D, or their equivalents, substantially as and for the purpose herein shown and described.
 3d, The above, in combination with the inclined pipe, F, when the same is arranged and set forth, and with the pipe, A, all made and operating substantially as and for the purpose set forth.

67,989.—BOAT DETACHING TACKLE.—George H. Kempton, Hudson, N. J.
 I claim the application of the double-weighted hook to the ring and chains, C, D, A, combined and operating for the purposes specified.

67,990.—WASHING MACHINE.—J. H. Kranser, and G. N. Bowman, Pottsville, Pa.
 1st, We claim the legs, H, attached to the sides of the box, A, in an inclined position, the longer legs having pivoted in their upper ends the curved oscillating arms, B, as herein set forth, for the purpose specified.
 2d, The oscillating arms, B, constructed as described, the lower convex side having parallel convex slats, C, and its bottom edge board, D, inclined to form an acute angle with the convex sides, its upper end curved in the arc of a circle, in such a manner that in its oscillations it shall completely fill the slot in the cover, E, preventing the escape of liquid, as herein set forth, for the purposes specified.
 3d, The curved false bottom, J, arranged in relation with the inclined board, D, and the oscillating arm, B, as herein set forth, for the purpose specified.

67,991.—MEAT WASHER.—J. Lefebvre, Cambridge City, Ind.
 I claim the toothed sliding plate, a, in combination with the corrugated roller, C, and the hinged frame, B, arranged and operating substantially as and for the purpose herein described.

67,992.—MODE OF TREATING PRECIPITATED LEAD TO DESTROY ITS CRYSTALLINE CHARACTER.—G. T. Lewis, Philadelphia, Pa.
 I claim subjecting the precipitates of lead to the combined action of friction and pressure, substantially as and for the purpose described.

67,993.—EXPANDING DIE.—B. T. Loomis, New York City.
 1st, I claim the combination of the dovetailed cutters, B, interior slotted tube, C, and cutter seat, A, with each other, substantially as herein shown and described, and for the purpose set forth.
 2d, The combination of the pivoted cutter, D, with the cutter seat, A, and interior slotted tube, C, substantially as herein shown and described, and for the purpose set forth.

67,994.—WATER WHEEL.—O. W. Ludlow, Dayton, Ohio.
 1st, I claim the construction and arrangement of the arms, b, attached to the pivoted rods, a, of the buckets, G, their inner ends connected by the curved collar, H, operated by means of the rods, K, and lever, L, as herein set forth, for the purpose specified.
 2d, The vent tube, or ventilating pipe, P, applied to the draft tube, O, and provided with a valve, substantially as and for the purpose set forth.

67,995.—COAL CHUTE.—Ephraim Maguire, Kewance, Ill.
 I claim the hinged bar, E, rod, F, and rope, H, arranged and employed as described, in combination with the doors, B, C, notched arms, D2, and catches, G, all arranged and operating in the manner and for the purpose specified.

67,996.—APPARATUS FOR STRETCHING SKINS.—Augustus Marsh, Newark, N. J., assignor to himself and William Hogg, Melrose, N. Y.
 I claim the frame, A, with the double sockets, B, screws, c, when constructed and operated substantially as described for the purpose of stretching raw or tanned hides or skins.
 Also the nippers and straps in combination with frame, A, for attaching the skins or hides thereto for the purpose of stretching the same.

67,997.—PREPARING VEGETABLE FIBERS FOR TEXTILE AND OTHER FABRICS.—Henri Messmer (assignor to himself and Isaac Hey, Jr.), Newark, N. J.
 I claim the process herein described of treating fibrous plants for the purpose of separating or extracting the fiber therefrom, substantially as set forth.

67,998.—ROOFING COMPOUND.—A. H. Mott, Daniel Winer, and Lawrence Brink, Lockport, N. Y.
 We claim a roofing or sizing compound substantially as described.

67,999.—HINGE AND BLIND SUPPORTER.—W. W. S. Orbeton, Haverhill, Mass.
 I claim the said blind supporter made substantially as described, as a new article of manufacture.

68,000.—CHURN DASHER.—J. W. Pettengill, Rockford, Ill.
 I claim a dasher for churns etc., consisting of three or more perforated dishes or plates, C, D and E, arranged together substantially as and for the purpose described.
 Also the center piece to the stem or handle carrying angular perforated wings substantially as and for the purpose described and whether used in combination with the three or more disks to such stem or not.

68,001.—PRINTING PRESS.—C. Potter, Jr., Westerly, R. I.
 I claim the hook projections, E, E, at the under side of form bed, C, in combination with the rollers, D, D, and the latter arranged in such a manner as to admit of being adjusted relatively with the former by the screws or pins, c, or their equivalents for the purpose specified.
 2d, The pivoted nuts, e, in the lower parts of the levers, G, G, in connection with the screws, f, arranged as shown or in an equivalent way, for the purpose of regulating the tension of the springs, I, as set forth.

68,002.—WHEEL FOR VEHICLES.—H. A. Potter, Providence, R. I.

1st, I claim the beveled fellos, A, in combination with the plate, C, tire, B, bolt, D, provided with cam, E, substantially herein shown and described and for the purposes specified.
 2d, The sliding blocks, F, H, in combination with the tire, B, plate, C, and bolts, D, substantially as herein set forth and for the purpose specified.

68,003.—WAGON JACK.—R. B. Prindle, Norwich, N. Y.
 I claim the arrangement and combination of the slotted post, A, sliding gate, B, with its hooks, e, e, connecting rod, E, and crooked fulcrum lever, D, whereby the weight is raised and held by the lever without the aid of other parts as herein described.
 I also claim the adjustable slide frame, h, attached to the gate, B, in the manner described operating substantially as and for the purposes herein set forth.

68,004.—ANTI-DYSPEPTIC BITTERS.—C. T. Provost, N. Y. City.
 1st, I claim the combination of hard cider with other ingredients for anti-dyspeptic compounds.
 2d, An anti-dyspeptic stomach bitters, composed of the ingredients in the manner set forth.

68,005.—CONDENSED LEATHER PEG.—Chas. and Jos. G. Rowland, Quincy, Ill.
 We claim a peg made of condensed leather whether the same is made in the form of a corrugated or in the form of a corrugated or plain strip from which the pegs may be cut, substantially as described.

68,006.—MACHINE FOR MAKING CONDENSED LEATHER PEGS.—Charles and Joseph G. Rowland, Quincy, Ill.
 1st, We claim the process of making pegs, by compressing or condensing leather substantially as described whether the pegs be severed at the time of compression or the strips be first condensed and then cut into separate pegs.
 2d, We claim two or more rolls having recesses or dies formed on their periphery and arranged and operated in the manner and for the purpose of compressing leather or other material to form pegs substantially as set forth.

68,007.—WIND MILL.—Jos. Schenker, Brownsville, Minn.
 I claim the self-acting shut-off of the hollow G, operated by the weighted rod, I, pins, q, q', arm, F, and P', on rod, S, and rod, L, and by the aid of the spring, f, and weighted lever, u, all substantially as and for the purpose herein shown and described.

68,008.—REVOLVING CYLINDER ENGINE.—Chalmers Scott and William H. Morton, Hamilton, Ohio.
 We claim the arrangement of the hollow revolving shaft, D, having the stationary bar passing through it, to which is secured the arm, a, cylinder, A, fly wheel, E, and stand, C, substantially as described, for the purpose specified.

68,009.—SEWING MACHINES.—C. Stebbins, Pike, N. Y.
 1st, I claim the combination of the cloth presser, Q, the thread-lifting lever, C, the tension device, B, the catch, A, the carrier, D, and the lever, E, the said combination being organized substantially as described, so that by its mode of operation slack shall be given to the thread according to the thickness of the work when the eye of the needle reaches the surface of the cloth, as and for the purposes specified.
 2d, Interlocking the shuttle thread with itself in its passage from the bobbin to the work after passing through the holes, 1, 2, 3, in the shell, substantially as and for the purposes herein described.
 3d, The curved passage formed by the lip, h, in the needle throat, substantially as and for the purpose specified.
 4th, The combination of the eccentric, n, sliding rod, m, stirrup, p, and dog, k, substantially as herein shown and described, for the purpose specified.

68,010.—LEACHING TAN BARK.—Abraham Steers, New York City, assignor to himself and Henry L. Elder, and S. H. Kennedy, Philadelphia, Pa.
 1st, I claim passing the menstrum through the bark contained in the leach or leaches in an upward instead of a downward direction, substantially as and for the purpose described.
 2d, Heating the bark with live or exhaust steam after the same has been partially extracted by the cold menstrum, and then washing it out with water, and finally with a light alcohol, substantially as and for the purpose set forth.
 3d, The use of the perforated false top or perforated guard channel, h, in combination with the still, to prevent the bark from passing into the pipes with the liquor, substantially as described.
 4th, The use of a forced current of liquid or fluid through the matter operated on, and the adjustment of the second connecting pipes and valves for that purpose, whereby the force of the pump can be used to clear out obstructions in the pipes, as set forth.
 5th, Forcing the liquor through a series of leaches by the action of a pump or by means of steam, or both combined.

68,011.—FRUIT STEM CUTTER.—Albert Strong and James A. Dammun, South Boston, Mass.
 We claim said fruit stem cutter, constructed substantially in manner as represented, and to be used as described, viz.: of the blade and tube connected and arranged as set forth, and the notch formed in the latter, the blade fitting in and for the purpose specified.

68,012.—MANUFACTURE OF AUGERS.—J. Swan, Seymour, Ct.
 I claim the method of constructing auger bits by means substantially as herein shown and described.

68,013.—SEWING MACHINES.—Esau Tarrant, Muskegon, Mich.
 I claim the roller, E, hung in the pivoted frame, S, made adjustable by means of the elastic, H, in combination with the rollers, D, having sharp points or teeth, d', substantially as described, for the purpose specified.

68,014.—PUMPS.—C. Verniard and D. J. Lucie, Quincy, Ill.
 I claim the cylinder heads, D, constructed as described, provided with the projecting inclined flange, g, upon their upper sides, fitting over the upper side of the cylinder, A, the latter provided with corresponding inclined projecting inclined flange, f, upon its lower side, fitting into the lower part of the head, D, all arranged as described, whereby the heads, D, are prevented from making any vertical movement independent of the cylinders, as herein shown and described.

68,015.—MACHINERY FOR PROPELING STEAM CARRIAGES.—Elijah Ware, Bayoune, N. J.
 I claim, 1st, The combination of gear wheels, C, E, Y, G, arranged substantially as herein described, for the purpose specified.
 2d, I claim the running wheel, D, the brake wheel, K, the pulley, B, and the double ratchet, P, in combination with the gear wheels, C, substantially as described.
 3d, The brake wheel, K, in combination with the gear wheels, as described.

68,016.—APPARATUS FOR PREPARING PEAT FOR FUEL.—Joshua Webster, Malden, Mass.
 I claim in combination with the incline and its system of feeding scrapers and presser rolls, the filling, compressing, and discharging plungers arranged to operate substantially as set forth.
 Also, the arrangement of the mechanism for intermittently bringing the respective filled and empty molds into position under the respective filling, compressing, and discharging plungers, substantially as shown and described.

68,017.—WAGON WHEELS.—N. B. Welton, Waterbury, Conn.
 I claim the box, B, provided with an spiral groove upon the outside and adjustably secured in place in the hub, E, by the set screws, C, and D, substantially as herein shown and described and for the purposes set forth.

68,018.—MUSKETO AND FLY NET.—Nathan Weston, Jr., West Newton, Mass.
 I claim the combination and arrangement of the cord and the series of buttons or knobs, or their equivalents, with the window frame and the curtain applied thereto, substantially as specified.

68,019.—FRUIT BOX.—James White, Cleveland, O.
 I claim the movable bottom, B, in combination with the strips, D, and box, substantially as and for the purpose set forth.

68,020.—WOOD TURNING LATHE.—John Wilson and R. Hughes, Boston, Mass.
 We claim feeding the stock automatically and intermittently forward into position for the action of the cutter or cutters and holding the same stationary during the cutting operation, by mechanism substantially as set forth.
 I also claim in combination with automatic intermittent feed mechanism substantially as described, mechanism substantially as described for automatically bringing up the cutters into operation upon the stock and for carrying them back after each operation.
 Also the feed mechanism, cutting mechanism and sawing-off mechanism, when arranged substantially as set forth, to operate automatically and in succession.

68,021.—ROCKING CHAIR.—Daniel Witt, Hubbardston, Mass.
 1st, I claim the arrangement of the seat, B, the side pieces, b, pivoted on the base, A, and the spiral springs, c, c, to give the seat a regular rocking or oscillating motion, substantially as herein described.
 2d, The segment racks, e, e, and spring dogs, g, g, in combination with the back seat, B, shifting lever, E, and block, H, substantially as described for the purpose specified.
 3d, The shifting lever, e, and block, H, in combination with the seat, B, arranged and operating as and for the purpose specified.

68,022.—SASH BRUSH.—John B. Wood, Lansingburg, N. Y.
 I claim the metallic packing, C, in combination with the ferrule, B, bristles A, tapering metallic handle, D, with its open end, E, resting upon back, C, in the ferrule, B, as herein set forth, for the purpose specified.

68,023.—BEDSTEAD.—R. F. Woodside, Atlanta, Ga.
 I claim, 1st, The slat frames, G, hinged to the end rails, F, in such a manner as to be each folded vertically against the head and foot boards, and when turned to rest upon the pins, H, in the hinged side rails, B, thereby holding them spread and the bedstead in position, as herein set forth for the purpose specified.
 2d, The sections e1 and e4, of the side rails, E, provided with holes for the reception of the pins, H, upon the sections, e2, e3, when folded together, whereby the bedstead is folded more compactly and vertical movement of the sections permitted, as herein set forth for the purpose specified.

68,024.—FLATIRON HEATER.—John H. Yates, Batavia, N. Y.
 I claim, 1st, The construction and arrangement of the base, A, with or without the grate, B, upper pyramidal section, C, resting upon the base, A, and provided with slotted swinging doors, b, and partition, a, the hollow defecting D, within the base, A, and section, C, forming a space between the ribs, a, and inclined bottoms of the flat iron compartments, as herein set forth for the purpose specified.
 2d, The close flat iron heater when constructed as described for being adapted to fit into the pot holes of a stove, substantially as described for the purpose specified.

68,025.—LIQUID METER.—R. W. Young, Richmond, Va.
 I claim, 1st, The weighted rod, I, and arm, K, in combination with the valve, C, beam, E, and floats, G, G, substantially as and for the purposes set forth.
 2d, The connections, h, h', between the valves, H, H', and float rods, F, F' to actuate the former by the latter but permit independent motion.

68,026.—COMBINED PLANTER AND CULTIVATOR.—Jesse Adams, Clarksville, Texas.
 I claim, 1st, The agitating and distributing attachment above described consisting of the perforated bottom of the box, G, in combination with the valve, A, lever, c, and pins, t, t, on the wheel, W, all constructed and operated

ing in combination with each other, substantially in the manner and for the purpose specified.

2d. The combined planter and cultivator above described, constructed and operated, substantially as set forth.

REISSUES.

2,735.—FIRE ESCAPE.—American Fire Escape & Fireman's Ladder Company, New York City, assignees of Robert Watt. Patented June 20, 1865.

1st. I claim the apparatus composed of a divided case, A and G, composed of two sides of the ladder and hinged together by a series of rounds or steps, H, and secured substantially as and for the purposes herein set forth, the whole forming a fire escape ladder.

2d. The fastening substantially as herein described whereby the two segments forming the sides of the ladder are held securely together and locked against improper interference for the purposes set forth.

2,736.—BED BOTTOM.—A. S. Babbit, Keeseville, N. Y. Patented June 9, 1867.

I claim the block, A, with its ears, a, a, and shoulders, x, x, when constructed substantially as described and used for the purposes set forth.

2,737.—MACHINE FOR AFFIXING POST OFFICE STAMPS TO LETTERS.—R. Hoe & Company, New York City, assignees by mesne assignments of George K. Snow. Patented May 13, 1858.

1st. We claim the combination of the following elements, namely, a feeding mechanism to advance the strip of stamps or labels, a shearing or cutting mechanism to separate the stamps or labels, a platen to affix the stamps or labels, and a bed or equivalent therefor to support the article being stamped or labeled, constructed and operating substantially as described and for the purpose specified.

2d. The feeding mechanism, the platen, the shear or shears arranged with respect to the lever, and the bed or equivalent therefor substantially as specified, whereby by the reciprocating motion of the lever results will take place substantially as set forth.

3d. The combination and arrangement in a single instrument of the lever, C, the platen, H, and a shear or cutting edge, d, substantially as described and for the purposes set forth.

2,738.—METHOD OF HANGING DOORS.—George W. Holly, Low Moor, Iowa. Patented Oct 16, 1866.

I claim the arms, f, f, and rods, e, e, arranged and operating relatively with the bars, C, F, and door or gate, A, substantially as described and for the purpose specified.

2,739.—OPERATING ORDNANCE.—Charles Perley, New York City. Patented Dec. 12, 1865.

1st. I claim the mode herein specified of elevating a gun or mortar from behind a breastwork or protection, previous to its discharge and the lowering of the same previous to loading by a hydraulic ram and cylinder as specified.

2d. I claim a plunger and chamber from which there is an opening to form a gradual recoil check for ordnance by the escape of the fluid or liquid contained in such chamber.

3d. I claim projecting the gun forward by the pressure of a liquid upon a ram or plunger, substantially as specified.

4th. I claim adjusting or shifting a gun by means of pressure upon a ram or plunger in a chamber, substantially as specified.

5th. I claim elevating the charge or projectile by pressure acting upon a ram or plunger substantially as specified.

6th. I claim connecting the chamber in which the recoil plunger acts with the cylinder sustaining the gun, substantially as specified, so that the pressure in the latter shall force the gun forward as set forth.

7th. I claim supplying through the sustaining ram, d, the liquid or fluid that acts by its pressure to project the ram or to adjust or sight the same substantially as set forth.

2,740.—FIRE PLACE.—Albert J. Redway, Cincinnati, Ohio. Patented May 7, 1867.

1st. I claim the combination with an open front stove or fire place, of the crown, C, (whether flat, truncated or arched) having the side flues, D, D', and dividing strip or strips, G, G', substantially as set forth.

2d. Surrounding the fire chamber of a grate or stove with the arched crown, C, which extends from the back of the fire chamber, and is provided with side flues, D, D', all arranged and operating in the manner herein described and set forth.

3d. In combination with the crown, C, and side flues, D, D', I claim the flue strips, G, G', and abutment, H, H', for the purpose specified.

2,741.—PREPARATION OF ROOFING FABRIC.—Alfred Robinson, New York City. Patented June 20, 1865.

1st. I claim the method of coating a sheet or sheets of felt or other material with asphalt or other cement in a soft or plastic state, by applying such material to one side of the sheet while the other side is supported by a roller or moving surface, substantially as set forth.

2d. Taking two or more thicknesses of felt or paper to form a roofing material by means of the roller or other means introduced between such thicknesses while supported and moved by a roller, substantially as set forth.

2,742.—SPRING MATTRESS.—R. Stilwell and A. D. Farrell, New York City, assignees of R. Stilwell. Patented September 20, 1864.

1st. We claim hinging together the sections containing the springs substantially as herein shown and described, so that the folded horizontal sections thereof shall have a separation of about twice the thickness of the mattress, all as set forth.

2d. The combination with the mattress at the folds thereof, and with the horizontal section substantially as and for the purpose herein shown and described.

3d. The catching lips, s, in combination with the hinges substantially as herein shown and described.

2,743.—HARVESTER REELS.—William N. Whiteley, Springfield, Ohio, assignee of John S. Troxel. Patented May 11, 1858. Division B.

1st. I claim supporting the blades of overhanging reels from the head or plate on the end of the shaft at the inner end of the reel by means of the straight arms, i, and oblique arms, k, substantially as set forth.

2d. The head, m, and its equivalent for the purpose of connecting the arms, k, k, which support the blades to the shaft, at the inner end of the reel, substantially as and for the purpose set forth.

3d. The adjustable head or plate, j, substantially as and for the purpose specified.

4th. The head, j, constructed with the slots, n, in combination with the clamping bolt, m, and permanent arm, l, substantially for the purpose set forth.

2,744.—CLOTHES HOOK.—H. M. Whitmarsh, Abington, and S. S. Putnam, Dorchester, Mass. Patented Jan. 29, 1867.

We claim a pivoted hook, C, with its slot or opening, e, arranged that it may be closed up and thus occupy less space substantially as described.

We also claim in combination with the above, a plate or bracket, A, substantially as and for the purpose set forth.

2,745.—SEWING MACHINE.—Christopher Hodgkins, Marlboro, N. H. Patented Aug. 20, 1861. Division A.

1st. I claim the combination of the jointed arms, K, L, fitted between the feed ring, J, and the supporting block, M, the lever, N, and its cam, f, and the screw, i, the whole arranged substantially as described in relation to each other and to the cam, O, on the feed shaft, G, and operating as set forth.

2d. So arranging and applying the rotary looper in combination with an eye pointed needle for working the chain stitch, that the point of the looper enters the loop or needle thread while below the axis of rotation, substantially as herein described, or other words, while on the opposite side of said axis to that in which the cloth is situated.

2,746.—SEWING MACHINE.—Christopher Hodgkins, Marlboro, N. H. Patented Aug. 20, 1861. Division B.

I claim the internal gear, H, in combination with the pinion, E, and actuating a reciprocating needle, and the pinion, G, for operating a looper or instrument for forming stitches in a sewing machine, substantially as described and for the purposes specified.

2,747.—RAILROAD CAR BRAKE.—J. W. Latcher and Wm. J. Powell, Amsterdam, N. Y. Patented Dec. 27, 1864.

We claim suspending or hanging railroad car brakes by means of suitable sleeves secured to the cross beams of the brake and so fitted as to slide forward and backward on appropriate guides or ways secured to the truck, substantially as and for the purposes set forth.

2,748.—WOODEN PAVEMENT.—Samuel Nicolson, Boston, Mass. Patented Aug. 8, 1854. Reissued Dec. 1, 1863.

1st. I claim placing a continuous foundation or support as above described directly upon the roadway, then arranging thereon a series of blocks having parallel sides, endwise in rows, so as to leave a continuous narrow groove or channelway between each row, and then filling said grooves or channelways with broken stone, gravel, and tar, or other like material.

2d. I claim the formation of a pavement by laying a foundation directly upon the roadway, substantially as described, and then employing two sets of blocks, one a principal set of blocks, that shall form the wooden surface of the pavement when completed, and an auxiliary set of blocks or strips of board, which shall form no part of the surface of the pavement, but determine the width of the groove between the principal blocks, and the filling of said groove, when so formed between the principal blocks, with broken stone, gravel, and tar, or other like material.

3d. Placing a continuous foundation or support as above described, directly upon the roadway, and then arranging thereon a series of blocks having parallel sides, endwise in a checkered manner, so as to leave a series of checkered spaces or cavities between said blocks, and then filling said checkered cavities with broken stone, gravel, and tar, or other like material.

4th. I claim the production of a pavement by laying a foundation directly upon the roadway, substantially as above described, and then employing two sets of blocks, one a principal set of blocks, that shall form the wooden surface of the pavement, and an auxiliary set of blocks that shall form no part of the wooden surface of the pavement, but determine the dimensions of the resseled cavities between the principal blocks, and then filling said resseled cavities with broken stone, gravel, and tar, or other like material.

2,749.—PICKER STAFF MOTION FOR LOOMS.—The Amoskeag Manufacturing Company of Manchester, N. H., assignees of Nehemiah S. Bean. Patented Jan. 22, 1861. Reissued May 28, 1867.

We claim the improved arrangement of the rocker, b, within the link, c, and on the support, e.

Also the arrangement of the spring, f, with the support piece, e, the link, c, and the rocker, b.

Also the arrangement of the ears, g, with the link, c, and the rocker, b, the whole being substantially as specified.

2,750.—BRUSH HOLDER.—Bernard Morahan, Brooklyn, N. Y. Patented July 9, 1867.

I claim the frame, A, or its equivalent, in combination with a hinged or pivoted jaw, or the equivalent thereof, so arranged as to expand or contract as the width of the brush may require, for the purpose herein shown and described.

2,751.—ELEVATOR.—N. D. Hinman, Stepney Depot, Conn. Patented Nov. 29, 1864.

I claim the bars, J, J, L, pivoted in the car, A, as shown, and the bars, J, J, connected at one end by a cross piece, k, in combination with the button, G, on the chain, F, and the pins, e, on the inclined ways, M, all arranged substantially as and for the purpose herein set forth.

I further claim the bent pawl, H, arranged to operate in connection with the chain, F, and pulley, D, substantially as and for the purpose set forth.

2,752.—MODE OF TRAINING HOPS, ETC.—Levi H. Whitney, Vallejo, Cal. Patented Dec. 4, 1866.

1st. I claim the herein-described mode of training hop vines, etc., in such manner as to lead them up wires diverging from each base, and then horizontally across the space to the next row opposite, upon wires retained separate at any desirable width or distance from each other over the whole surface of the plantation, substantially as set forth.

2d. I claim the device herein described for securing the strings or cords, when constructed and used in the manner described.

3d. Constructing the shackles, b, b, b, with longer arms than those of c, c, c, to allow them to drop lower than the latter, to which the upper ends of the cords are attached.

4th. The device constructed and arranged as described, for securing the lower ends of the cords over the hills of vines, for the purpose described.

2,751.—TRADE MARK.—George Brett, North Easton, Mass. Patented July 9, 1867.

2,752.—PLATES OF A STOVE.—David Hathaway (assignor to Fuller, Warren & Co.), Troy, N. Y.

2,753.—INK BOTTLE.—B. P. Holmes, Philadelphia, Pa.

2,754 to 2,765, inclusive.—CARPET PATTERN.—E. J. Ney (assignor to Lowell Manufacturing Company), Lowell, Mass. Twelve Patents.

2,766.—HORSE BRUSH.—A. H. Smith, Wm. W. Clark, and Geo. F. Starbuck, New York City.

2,767.—PAPER BAG.—Samuel W. Valentine, Bristol, Conn.

PENDING APPLICATIONS FOR REISSUES.

Application has been made to the Commissioner of Patents for the Reissue of the following Patents, with new claims submitted. Parties who desire to oppose the grant of any of these reissues should immediately address MUNN & Co., 31 Park Row, N. Y.

46,075.—TOOL FOR PAINTING PAIRS.—Jonathan Carter, Winchendon, Mass. Patented Jan. 31, 1855. Application for reissue received and filed Aug. 1, 1867.

1st. I claim an elastic printing surface adapted and corresponding to the surface and taper of the pall, tub, or other similar articles to be printed or otherwise ornamented, and operating in the manner and for the purpose set forth and described.

2d. I claim the use of said bed of elastic material in the carved form shown, to be applied as described, whether said bed be arranged in a series of distinct designs or in one general design, for the purpose set forth.

3d. The conical die or print roll when constructed in the manner and for the purpose substantially as above set forth and described.

14,201.—LANTERN.—Francis Morandi, Boston, Mass. Patented Feb. 5, 1856. Application for reissue received and filed Aug. 2, 1867.

1st. The tunnel, D, applied to the lantern in the manner and for the purpose substantially as herein set forth.

2d. I claim the opening in the side of the lantern covered by a sliding door, C, substantially as and for the purpose set forth.

26,401.—MODE OF APPLYING SULPHUROUS ACID GAS IN THE DEFECATION OF CANE JUICES.—Nancy Polndexter Braehar, Pattersonville, La. Patented Dec. 6, 1859. Application for reissue received and filed Aug. 3, 1867.

1st. The use of the fumes of burning sulphur, or sulphurous acid gas, in the treatment of juices containing saccharine matter, substantially as described.

2d. Subjecting sugar cane juice, or other saccharine liquid, to the direct action of the fumes of burning sulphur, such liquid being employed in a defused state, or in such manner treated that it will be thoroughly impregnated with the fumes of sulphur, substantially as described.

34,984.—COAL OIL LAMP.—Joseph Ridge, Richmond, Ind. Division A. Patented April 15, 1862. Application for reissue received and filed Aug. 3, 1867.

1st. The use of transparent material between the base of the deflector and base of the burner, by which the advantages are obtained as herein described.

2d. The combination and arrangement of the base, B, of the burner, the transparent inclosure, M, the deflector, D, and chimney, C, substantially as set forth and for the purposes described.

34,984.—COAL OIL LAMP.—Joseph Ridge, Richmond, Ind. Division B. Patented April 15, 1862. Application for reissue received and filed Aug. 3, 1867.

The within described arrangement of the deflector having an enlarged slot, with reference to and in combination with a chimney constructed as described.

22,436.—FRUIT CAN.—Wm. W. Lyman, West Meriden, Conn. Patented Dec. 28, 1858. Application for reissue received and filed Aug. 3, 1867.

I claim compressing the cover and jar together against the packing ring, when said packing ring is arranged between the lower edge of the flange of the cover and a properly formed seat on the neck or body of a jar, substantially as and for the purpose described.

41,007.—PUTTING UP POWDERS, ETC.—Henry Sawyer, Roxbury, Mass. Patented Jan. 5, 1864. Application for reissue received and filed Aug. 7, 1867.

What I claim as a new article of manufacture is a package or case which, when made with distributing holes and filled, is cemented by the wax or water, as set forth.

41,070.—STRAW CUTTER.—F. B. Hunt, Richmond, Ind. Patented Jan. 5, 1864. Reissue No. 2,868, dated Oct. 2, 1866. Application for reissue received and filed Aug. 3, 1867.

1st. I claim the bar, x, cast in one piece with the bearings, b, b, of cutter shaft, c, and extending across from one to the other, substantially as shown.

2d. I claim a horizontally sliding adjustable bar, against which a rotary knife cuts, in combination with vertical screws or bolts attached to or passing through it, by which it is held down upon its bearings.

3d. I claim a rigid supporting bar, when used as a support for the horizontally sliding adjustable cutter bar, E, as and for the purpose shown and described.

4th. I claim the bearings, b, b, when made in halves in combination with a horizontally sliding adjustable bar against which a rotary knife cuts.

5th. I claim attaching the plates, w, and the bearings, b, b, to the bar, x, for the purpose of forming a framing to support and attach the working parts of the machine, whether the bar, x, is cast in one piece with the bearings, b, b, or whether the bar, x, is otherwise attached.

6th. I claim connecting the feed rollers, G and H, by means of the pinions, a', b', and c', the pinions, b' and c', being placed on studs on the swinging plate, c, attached to the shaft, n; the pinions, a' and c', being kept in gear by the link, f, or its equivalent.

7th. I claim the swinging plate, c', connected to the shaft, n, and carrying the pinions, b' and c', substantially as and for the purpose shown and set forth.

8th. I claim mounting the upper feed roller, H, in a frame with slines extending below the lower feed roller, and acted upon by a spring or its equivalent, substantially as shown and for the purpose set forth.

9th. I claim the hooked slings, q, q, in combination with the yielding feed roller, H, and spring, i, or its equivalent, whereby the said feed roller, H, is limited in its upward movement, as set forth.

10th. I claim hanging the upper feed roller, H, in slings attached to a spring or its equivalent, said roller moving in slots, v, v, in combination with a revolving knife and a horizontally adjustable bar against which the knife cuts.

11th. I claim the hubs or bearing, u, u, attached to the slings, q, q, and surrounding the shaft, p, of the feed roller, H, said hubs moving in slots, v, v, in plate, w, and relieving the shaft from friction against the plates, as set forth.

12th. I claim the guide board or plate, u, connected to and moving with the frame, t, of the upper feed roller, H, and extending downward at the back of the said roller to near a level with its axis, substantially as and for the purpose set forth.

13th. I claim the slots, v, v, in plates, w, when combined with a rotary knife D, and a horizontally sliding adjustable bar against which the knife cuts, for the purpose shown and set forth.

14th. I claim the slots, v, v, in the plates, w, when made concentric with shaft, c, in combination with pinions, a, b, and d, e, said pinions connecting feed rollers, H and G, so that the adjustable roller can move up and down concentric with shaft, C, and the pinions remain in gear, substantially as set forth.

15th. I claim a feed roller whose shaft moves up and down in combination with a horizontally sliding adjustable bar against which the knife cuts.

16th. I claim in combination with the bar, x, and adjustable bar, E, I claim a revolving knife, D, with its axis placed above the plate of the adjustable cutter by E, to act with a slanting and bearing on substantially as set forth.

17th. I claim the counterbalances, c', when combined with arms, e, c, and esgine rotary knife, for the purpose shown and described.

18th. I claim combining and revolving cutter knife, D, with the fly wheel, E', in such manner that when the knife is in rapid motion and meets with an obstruction, the knife may be suddenly arrested, and the fly wheel continue to revolve for a limited period of time and expend its momentum independently of the knife, thereby preserving the knife and other parts of the machine from injury by the sudden stoppage of the knife.

119, whole No. 31,123.—SEEDING MACHINE.—Adam R. Reese, Phillipsburg, N. J., assignee of George W. Lee and Adam R. Reese. Patented Jan. 15, 1861. Application for reissue received and filed Aug. 8, 1867.

1st. I claim the lifter handle that raises the seed tubes out of the ground, in combination with a mechanism or device that throws the feed out of gear by the one movement of the said lifter handle.

2d. I claim in combination with the seed box of a grain drill, cast iron ends for closing and supporting the ends of said box.

3d. The cast iron ends of the seed box of a grain drill, provided with flanges formed thereon fitting and supporting the ends of the front and rear boards, as described.

3d. In combination with a grain drill tube, a brace for maintaining the tube in its proper working position, supported and kept in place at its upper end by means of a wooden pin, for the purpose set forth.

4th. The feed slide of a grain drill made of two bars, the one sliding in recesses of the grain strippers while the other is adjustable in relation thereto in such manner as to maintain the parallelism of said bars, for the purpose set forth.

11,967.—SEED PLANTER.—Adam R. Reese, Phillipsburg, N. J., assignee of George W. Lee. Patented Nov. 21, 1854. Application for reissue received and filed Aug. 8, 1867.

1st. I claim in combination with the seed box of a grain drill, cast iron ends for closing and supporting the ends of said box.

2d. The cast iron ends of the seed box of a grain drill, provided with flanges formed thereon fitting and supporting the ends of the front and rear boards, as described.

3d. In combination with the seed box of a grain drill, cast iron ends provided with teeth for supporting the main frame.

4th. The scores, o, o, or their equivalent, at the extremities of the holes, C, in the disks, M, in combination with the gradual narrowing of the holes toward their extremities, so as to save the grain from being cut, substantially as described.

52,130.—SPOKE MACHINE.—R. H. Boynton, Oshkosh, Wis. Patented Jan. 23, 1866. Application for reissue received and filed Aug. 9, 1867.

1st. I claim the feed pulley, D, feed lever, v', friction pinion, G, friction pulley, E, pinion, e', and gear wheel, i, or their equivalents, when arranged relatively to each other and to the pulley or drum, H, and revolving pattern, S, and other parts, C, as and for the purposes set forth.

2d. I claim the taper adjusting connection, n, and auxiliary lever, m', when arranged relatively to each other and to the lever, m', and arms, t, as described, or in any manner equivalent, as and for the purposes set forth.

3d. I claim the revolving pattern, S, lever, m', bent arm, t, spring, e, or their equivalents in effect, when arranged relatively to each other and to the cutter leads, u, u, and rotating feed carriage beds, as and for the purposes set forth.

4th. I claim the revolving wiper pin, C, lever, h, and jointed standard, i, or their mechanical equivalents in effect, when arranged relatively to each other and to the cutter heads, u, u, and rotating feed carriage beds, as and for the purposes set forth.

5th. I claim an adjustable automatic actuating of the revolving cutter heads provided with suitable cutter knives in a perpendicular, together with a reciprocating lateral motion in combination with the revolving motion thereof, and arranged relatively to variformed patterns, as and for the purposes set forth.

6th. I claim the employment of a number of feed carriage beds, connected together to rotate and form a continuous feed, when arranged relatively to an upper and lower revolving cutter, substantially as described, or in any manner equivalent in effect, for the purposes set forth.

58,327.—ENVELOPE MACHINE.—H. E. Berlin and George H. Jones, New York City, assignees of Thomas V. Waymouth. Patented Sept. 25, 1856. Application for reissue received and filed Aug. 13, 1867.

1st. We claim gumming the seal caps of the blanks for envelopes at or about the same time with the lower or end flaps, after the blanks are placed in the machine and before they are folded, by mechanism substantially as described, or any other suitable mechanism to produce the same effect, for the purposes set forth.

2d. The arrangement of a curved guide, T, in combination with the table and supporting frame, substantially as and for the purposes set forth.

3d. Causing the seal flap, while being folded, to bear on one or more of the other folding wings, or on parts or projections of said wings, or any device or mechanism interposed between the seal and other flaps and producing the same effect, substantially as and for the purposes set forth.

4th. The combination with mechanism adapted to gum the seal and other flaps of envelope blanks, of folding mechanism so arranged as to operate as to prevent the seal flap being brought in contact with the other flaps or parts of the blank and adhering thereto.

5th. The protecting lips, r', in combination with the folding wings, constructed and operating substantially as and for the purposes set forth.

6th. The raised or projecting surface at or near the edge of the wing which lifts the lower flap of the blank, substantially as and for the purposes set forth.

7th. The endless apron, Q, with its radiating arms, in combination with a suitable gumming and folding mechanism, constructed and operating substantially as and for the purposes set forth.

8th. Passing the endless apron, Q, at its receiving end, over a square or polygonal shaft, substantially as and for the purposes set forth.

9th. In combination with the endless apron, Q, the rail, o', or its equivalent, substantially as and for the purposes set forth.

10th. The combination with a suitable mechanism for gumming the flaps of envelopes, and folding the envelope blanks, of an endless apron as described, or any equivalent device or mechanism for receiving the envelopes after they are folded, and moving or supporting the same without compression until they gum on the seal flaps and dry.

11th. In combination with the endless apron, Q, or its equivalent, the receiving box, R, and follower, S, constructed and operating substantially as and for the purpose set forth.

12th. The lower arm, O, in combination with the carrying platform, N, and a suitable die inserted in or attached to said lever, or to the platform, or to both, substantially as and for the purposes set forth.

13th. The arrangement of dies, S, on the creasing plunger, and on the folding table, or on either, substantially as and for the purpose set forth.

14th. The types, u, arranged in an armand operating in combination with the folding table and creasing plunger, substantially as and for the purposes set forth.

61,576.—HAY KNIFE.—Philo O. Soper, San Francisco, Cal. Patented Jan. 29, 1867. Application for reissue received and filed Aug. 13, 1867.

1st. I claim the construction of the blade, B, substantially as described.

2d. The bearing of the shank, C, in connection with the angle given to the edge of the blade, B, substantially as and for the purpose described.

3d. The point, A, substantially as and for the purposes above described.

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