

arranged as described, in combination with the pin C, and cross head, B, substantially in the manner and for the purpose set forth.

24. The peculiar mechanism, herein described, of attaching and supporting the side springs, B, consisting of the pipes F, and hooks, A, in combination with the cross head, B, and loops, E, as and for the purpose specified.

84,832.—CLOTHES BOILER.—D. Kellogg, Ypsilanti, Mich.  
I claim the removable caps, D, with their hinged spouts, F, when combined with the perforated and slotted plates, A, as herein shown and described.

84,833.—HARVESTER RAKE.—Wm. A. Kirby, Auburn, N. Y.  
I claim, 1st, A combined rake and reel, the arms of which are capable of having a rolling motion on their axes, and in which any arm acting at the time being as a beater, or all of the beaters, can be raised or lowered while acting as such, by the operator riding on the machine, so that it or they may pass over the grain on the platform at any desired height, substantially as described.

2d, Also, in a combined rake and reel, in which any arm thereof may be a rake or a beater, at the will of the operator, the so constructing and arranging the cam ways that the arm that acts as a rake shall pass over the platform at a uniform fixed height, while the arms that act as beaters may be raised or lowered in parallel lines, to pass over the grain on the platform at such height as the operator may desire, substantially as described.

3d, Also, hanging the arms of a combined rake and reel at points remote from the ends of motion of the wheel or head that carries them, so that in dropping or rolling the rake or beater arms into their working position they shall do so in a direction contrary to that in which the wheel, frame, or head that carries them is moving, and so that they may roll into a position to reach the adjustable hinged lifting and lowering cam way, when used as beaters, and pass beyond or outside of it when used as a rake, substantially as described.

4th, Also, inserting a series of rakes and beaters to their journals, respectively, by curving or bent axes, crossing each other, one bent upward and the other downward, for the purpose of getting the centers of motion of the beaters or arms all in the same plane, so that they may all receive a uniform motion from the cam ways that guide or influence them, substantially as described.

5th, Also, the combination of the sleeve with its hinged dogs, the forked latch, E, and the cam way 12, for the purpose of enabling the operator on the machine to throw the arm that has been acting as a rake out, and hold it out, or to allow it or any other arm of the series to run into action as a rake while the remaining arms of the series act as beaters, substantially as described.

6th, Also, in combination with a series of arms that have a revolving, rising and falling, and a rolling motion on their journals, a hinged cam way that may be raised or lowered, to raise or lower the beaters, by means of a lever extending therefrom, so as to be within the reach of the driver upon the machine, substantially as described.

7th, Also, in combination with a series of arms, one of which acts as a rake, and the others as beaters, a series of hinged dogs, G, one of which shall serve to adapt an arm especially to raking, while the others shall adapt the other arms especially to beating, substantially as described.

84,834.—HORSE SHOE.—Rudolph Laporta, New York City.  
I claim the combination of the screw bar, C, with calks, I, nut, E, cross bar, H, having calks, J, on the screw bar, C, when constructed and arranged to operate together substantially in the manner and for the purpose described.

84,835.—APPARATUS FOR MAKING PAPER BOXES.—Francois Leclere, Boston, Mass.  
I claim for the purpose specified, the described process of using thin pulp in high columns over pervious formers, substantially as set forth.

Also, the combination of the wheel, b, with cylinders, r, arranged to rise and fall over the formers, m, substantially as and for the purpose set forth.

Also, the combination of the wheel, b, and slides conveying the formers, m, with inclines to move the slides outward and inward, as the wheel revolves, substantially as and for the purpose set forth.

Also, the combination with the cylinders, r, and their conveyer, b, of the valves, o, and the incline, cl, operative thereon, substantially as and for the purpose set forth.

Also, the process of condensing the pulp on the former, and expelling the water therefrom against atmospheric pressure by covering the pulp with a vessel, and admitting air under pressure, substantially as and for the purpose set forth.

Also, the process of removing the paper from the pervious former, by covering the pulp on the former with a cap fitting thereon, and admitting an air-blast within the former, substantially as and for the purpose set forth.

Also, the process of removing the paper from the cap which received it from the former, and for transferring the paper to a receiving block, by covering the receiver block with the cap, and admitting an air blast into the cap, substantially as and for the purpose set forth.

84,836.—BOTTLE-FILLING APPARATUS.—John Matthews, Jr., New York City.  
I claim, 1st, The combination of a strup pump or charging device with the filling head or corking plunger, of a bottle or machine, in such manner that said pump or charging device is operated automatically by the filling head or its corking plunger, to admit sirup or other flavoring mixture to the bottle, while the aerated water, or other liquid to be sweetened or flavored is separately supplied to said bottle as it remains under the filling head, substantially as specified.

2d, The arrangement, essentially as described, of the strup pump or charging device made adjustable, to regulate its charge, as specified, with the filling head or corking plunger, for operation together, substantially as herein set forth.

84,837.—ROTARY HORSE BRUSH.—W. W. McKay, Ossian, Iowa.  
I claim, 1st, The combination, in a frame of a rotary brush, and a slide arranged for communicating rotary motion to the brush, alternately in one direction and the other, as and for the purpose described.

2d, The brush, D, arranged in combination with the frame, A, so as to be readily attached to and detached therefrom, substantially as and for the purpose described.

3d, The combination with the brush, D, of the adjustable scraper, F, substantially as and for the purpose described.

4th, The arrangement of the brush, D, frame, A, pulleys, E, cords, D', and slide, C, substantially as and for the purpose described.

84,838.—BRIDLE.—John McKibben, Lima, Ohio. Antedated December 1, 1868.  
I claim the reins, E, provided with the stops, h, in combination with the bit, having its side bars, g, provided with guides, ff, for the reins to pass through, and the tubes, e, at the rear edges of the blinders, through which the reins also pass, all arranged substantially as and for the purpose set forth.

84,839.—EXTENSION LADDER.—Warren Morehead, Parkersburg, W. Va.  
I claim the arrangement of the sliding ladder, B, constructed as described, triangular ladder, A, with its ends, d, d, and the latch, D, and slide, E, all constructed and operating as shown and described.

84,840.—ENVELOPE.—Charles R. M. Pohle, Richmond, Va. Antedated November 30, 1868.  
I claim the closing of the envelope by the action of the double seal, substantially as described.

84,841.—WATER ELEVATOR.—L. Raymond, Greene, Ohio.  
I claim the combination of the swivel or trapeze, F, the inclined guide, G, and the cords and pendants, D, E, all substantially as and for the purpose set forth.

84,842.—FLOUR COOLER.—Joseph S. Reynolds, Wauconda, Ill.  
I claim the arrangement herein described, of the shaft, B, and agitators, D, D, with the cooling pans, A, provided with spouts, a', near their peripheries and screw conveyers, C, as and for the purpose set forth.

84,843.—BRIDLE BIT.—William S. Robbins, New Bedford, Mass.  
I claim, 1st, The inner bit, B, attached to the outer concave bit, A, by means of the curved end springs, W, whereby the inner bit is adapted to be drawn out of the bit, A, its entire length, and parallel with said outer bit, as herein described for the purpose specified.

2d, Attaching the bridle to the outer bit, A, and the driving reins to the inner bit, B, as herein described for the purpose specified.

84,844.—HAND SUPPORTER FOR PIANOS, ETC.—Charles Sangalli, New York City.  
I claim the apparatus hereinabove described, or its equivalent, suspending the hands of the fingers, without hindering the free movements of the fingers, and keeping thereby the hand or wrist, and in consequence thereof, the fingers upon the key board in the position desired, at the same time unimpeding all the motions required to be made to use the same, and to play upon an instrument, as above described.

84,845.—DIES FOR MAKING CARRIAGE AXLES.—W. W. Simmons, Birmingham, Conn., assignor to himself, R. M. Bassett and T. S. Bassett.  
I claim the dies, E, constructed as shown and described, for the purpose hereinbefore set forth.

84,846.—PUMP.—Oscar Snell, Williamsburg, Ohio.  
I claim, in combination with the pump proper, A, the valve chest, F, consisting also of an air chamber, the slide valve, G, tube, K, and discharge pipe, L, when constructed and arranged to operate in the manner and for the purposes herein set forth.

84,847.—PLANING MACHINE.—Henry D. Stover, New York City.  
I claim the frame of a planing machine, constructed in the manner described, so that the arm that carries the cutter may operate simultaneously with the cylinder, D, substantially as and for the purpose set forth.

2d, The oscillating clamp, R, when constructed in the manner and for the purpose described.

3d, The adjustable brackets, N, in combination with the frame, E, for supporting the driving shaft, O, and tighteners, when constructed and arranged as described.

4th, The clamp, R, when provided with a single hook at each end, to take hold of pins inserted in the sides of the carriage, as described.

5th, The iron uprights, E, in combination with a bed, A, when such bed is used for the support of the vertical and horizontal cutters, D and FF, in the manner described, and for the purpose set forth.

84,848.—HYDRANT.—Solomon Tice, Cincinnati, Ohio.  
I claim the combination, substantially as described, of the open-ended and perforated cylinder, A, a chamber, B, inlet pipe, C, discharge pipe, D, collar, E, valve seat, F, packing G, stem, K, plunger, M, m, valve, F, and contracted passage, P, all substantially as described, and for the object explained.

84,849.—CLOTHES DRYER.—Jarvis B. White, Detroit, Mich.  
I claim the clothes dryer, consisting of the standard, A, part, C, hinged near the foot of standard, A, and carrying the clothes rack, D, E, F, straps, G, and windlass, H, all arranged and operating substantially as and for the purposes set forth.

84,850.—APPARATUS FOR CLEANING RAGS.—George L. Witsell, St. Louis, Mo., assignor to himself and T. L. Bates, Philadelphia, Pa.  
I claim an apparatus for the uses specified, consisting of the cisterns, pipes, stopcocks, and air pumps arranged for operation substantially as set forth.

REISSUES.

77,476.—MACHINE FOR MAKING NUTS.—Dated May 5, 1868; reissue 3,223.—Matthew H. Foster and Hubert C. Hart, Unionville, Conn.  
We claim, 1st, The combination of the sliding bed, B, with the mechanism for cutting, the mechanism for forming, and the mechanism for punching and swaging, substantially as described.

2d, The arrangement of the formers, ff', the blocks, k' k3, the set, t, the die, x, and the punch, p, constructed and operated as herein described.

3d, The peculiar arrangement of the cams, a b c d e s s' s' F, by which the several parts of the machine are made to operate at the proper time, substantially as herein set forth.

4th, The improved nut machine, consisting of mechanism constructed, combined, and arranged substantially as herein set forth.

82,683.—CHILDREN'S CARRIAGE.—Dated Oct. 6, 1868; reissue 3,224.—Francis Boviston, New York City.  
I claim, 1st, The combination and arrangement of the fixed axle, A, having two revolving wheels thereon and sills or supports, B, B, when the same are attached to the front part of a children's carriage or perambulator, substantially in the manner herein shown and set forth.

2d, Attaching the fixed axle, A, to the supports, B, B, by means of the brackets, C, C, and secured by the screws, a, a, or their equivalents, the whole of the parts being made and combined with a children's carriage or perambulator, substantially in the manner herein shown and described.

3d, The combination and arrangement of the fixed axle, A, having thereon two loose wheels, D, D, brackets, C, C, and sills or supports, B, B, the whole being made and combined, with respect to each other and to a children's carriage or perambulator, substantially as and in the manner herein shown and set forth.

45,302.—APPARATUS FOR CARBURETING AIR.—Dated Feb. 7, 1865; reissue 3,225.—Edmon L. Mix, Rochester, N. Y., and the Monumental Automatic Gas Machine Company, Baltimore, Md., assignees by mesne assignments of Hugh L. Mix, dovy.  
We claim, 1st, An apparatus for manufacturing air gas and enriching other gas, in which the carbonaceous matter is enclosed within an air forcing apparatus, consisting of a gravitating air holder and water receptacle, substantially as described.

2d, Manufacturing air gas by the described mode of using a holder, C, to contain air, receive the carbonaceous matter as it rises from the oil in the form of vapor, and force the gas into a pipe, wherein it is conducted off, as explained.

3d, The plate, E2, employed in connection with the pan, E, to cause the air to pass to the pipe, B, in contact with the oil, and in a state of compression, substantially as described.

4th, The sealing device consisting of the cup, F, cylinders, G, G', and a body of liquid between the latter, substantially as described.

5th, An apparatus for carbureting air, in which the vessel holding the hydrocarbon liquid is contained within the gasometer, in contact with the water in the cistern thereof, substantially as and for the purposes set forth.

23,978.—TACKLE BLOCK.—Dated Nov. 1, 1859; reissue 1,534, dated Sept. 8, 1863; reissue 1,932, dated April 11, 1865; reissue 3,226.—Isaac E. Palmer, Hackensack, N. J.  
I claim the construction of a tackle lock and pulley, whereby the rope or fall, when desired, may be clamped between a portion of the pulley and a portion of or surface connected with the block, substantially as herein described, by simply leading it in a direction oblique or lateral to the plane of rotation of the pulley, without tying, or the use of dogs or movable stops, or any other means of fastening.

30,446.—MAGAZINE FIRE-ARM.—Dated Oct. 16, 1860; reissue 3,227.—Winchester Arms Company (assignees by mesne assignments of B. Tyler Henry), New Haven, Conn.  
We claim, 1st, A combination with the hollow breech pin, the spring catch m, on the breech pin and the piston, arranged for central or rim fire, or both, substantially as and for the purpose set forth.

2d, In combination with the carrier block, E, and the spring catch, m, placed on top of the breech pin, L, and the forming of the top of the carrier block, near the rear end, to be downwardly, as to strike the cartridge forward of the center, and thus raising the forward end of the cartridge, while the rear end is held down by the spring catch, tripping it over and freeing it from the spring, and ejecting it from the gun, substantially as described.

DESIGNS.

3,277.—SNUFF BOX.—F. C. Heiser, Brooklyn, E. D., N. Y.  
3,278 to 3,290.—CARPET PATTERN.—Elemir J. Ney (assignor to the Lowell Manufacturing Company), Lowell, Mass. Thirteen Patents.

EXTENSIONS.

MANUFACTURING LEATHER BANDING FOR MACHINERY.—George Miller, Providence, R. I. Letters Patent No. 11,892, dated Nov. 7, 1854.  
I claim my improved manufacture of round banding, as made substantially as described, that is to say, by reducing a strip of leather or other suitable material, to the shape denoted in fig. 1, and subsequently rolling and centering the band, so that it essentially as exhibited in fig. 2, of the drawings hereinbefore mentioned.

BUCKLE.—Stephen E. Booth, Orange, Conn., administrator of S. S. Harshorn, deceased.—Letters Patent No. 11,892, dated Nov. 7, 1854; reissue No. 2,955, dated May 26, 1868.  
I claim, 1st, A buckle in which the tongues are formed from a single piece of metal, and constructed so as to clasp the divided side and turn freely thereon, substantially in the manner herein set forth.

2d, The combination of the two parts or loops, one side of one of which is divided, and the other part or loops, being together as described, and the tongue clasped and hinged upon the divided side, as set forth.

SHINGLE MACHINE.—Harry H. Everts, Chicago, Ill.—Letters Patent No. 11,855, dated Oct. 31, 1854.  
I claim placing the blocks to be shingled in a rotating carriage, which is combined with inclined tables, p, p (or a single table), and with saws o, o (or a singlesaw), in such a manner that the blocks will be carried continuously forward and be automatically operated upon to convert them into shingles, substantially as herein set forth.

I also claim the arrangement of the weighted levers, H, H, the fastening teeth, l, l, and the inclined planes, l, l, with each other and with the inclined tables, p, p, and the other series of teeth in the ledge, r, substantially as herein set forth.

I also claim presenting the sides of the fibers of the wood to the action of the saws in the sawing of shingles, or equivalent articles, for the purpose of giving them smoother surfaces than can be produced by the usual mode of sawing, substantially as herein set forth.

DAGUERRETYPE CASE.—Eliza Mascher, Philadelphia, Pa., administratrix of John F. Mascher, deceased.—Letters Patent No. 9,611, dated March 8, 1853; additional improvement No. 134, dated Feb. 19, 1856.  
I claim the case, B, for the daguerretype, with the adjustable flap or supplementary lid, C, said flap or lid, C, being within the case, and having to ordinary lenses, D, D, placed in it, by which, upon adjusting the flap or lid as shown, a stereoscope is formed of the case, and the two daguerreotypes, E, E, by binocular vision, are apparently formed into a like figure.

ADDITIONAL CLAIM.—The combination and arrangement of a series of leaves, B, B, of a portable camera, containing photograph or other pictorial representations (interspersed with or without printed leaves) with a supplementary lid or adjustable flap containing a lens or lenses as described, the same being united or bound together so as to form a book, substantially in the manner and for the purposes described.

LOOM FOR WEAVING FIGURED FABRICS.—George Crompton, of Worcester, Mass.—Letters Patent No. 11,933, dated November 14, 1854; reissue No. 639, dated December 28, 1858.  
I claim combining with hook jacks which are connected with the harness, and with the mechanism for operating them to open the shed, substantially as described, a part, m, or other part, constructed and connected with the harness, and operated so that the set of the pattern can be made to act on the hook jacks to place them in the required position to be operated upon by the mechanism for opening the shed, substantially as described.

I also claim, in combination with a pattern chain, arranged with two or more patterns in the direction of its length, the mechanism, substantially as herein described, for changing the movements of the chain to effect the opening of the pattern, as described.

I also claim placing two or more patterns upon the rods of a pattern chain, side by side, and operating them in succession by vibrating the chain laterally, in the manner substantially as described.

I also claim pivoting the lifting and depressing rods, G, P at one end, the other being made adjustable, in the manner and for the purpose set forth.

And I also claim moving the rods or jacks out of contact with the rollers on the pattern chain by the chain being drawn, by means of which are arranged the vibrating fingers, or the equivalents thereof, substantially as described.

SEWING MACHINE.—Charles Parham, of Philadelphia, Pa. Letters Patent No. 11,971, dated November 21, 1854; reissue No. 1,562, dated November 3, 1863.  
I claim, 1st, So forming and constructing the shuttle driver of a sewing machine that, while it performs the required duty of driving the shuttle, it serves to maintain the latter in the desired proximity to the plate, C, as set forth.

2d, The combination of the driver, A, shuttle, B, and stationary plate, C, the whole being formed and arranged substantially as described, so as to retain the shuttle during its flight in its proper position for the purpose specified.

PRESSER BAR FOR PLANING MACHINE.—Clara M. B. Snow, of Independence, Iowa, executrix of Harvey Snow, deceased.—Letters Patent No. 11,984, dated November 21, 1854.  
I claim combining the pressure bar, H, with the rotary cutters, so as to secure the same relative position of the inner edge of the bar, and the path of the cutting edge in holding and cutting the surface of a board throughout its varying thickness, substantially as described.

ANCHOR.—Samuel H. Miller, Dedham, Mass.—Letters Patent No. 9,078, dated June 29, 1852.  
The nature of my invention consists in having two separate shanks (marked A and B, in fig. 1 of the enclosed drawings) and flukes to them, C and D, the shanks being confined together near the rings by the bolt, E, secured at one end by a large head, and at the other by a strong nut or key, F, and separated at their elbows or crowns the length of one of the flukes by a snur or brace projecting from the shank A. In the other shank, B, there is a hole through which the end of the spur, G, passes, and is secured by a nut or key at H. The flukes are pointed in opposite directions, and so disposed that it is impossible for the anchor to be otherwise than with one of the flukes in the ground.

Specification 2.—There being no stock to this anchor, it is not liable to become "stock fouled" in "letting it go," nor can a vessel be "stock rode," as it is termed, by the stock entering the ground and being dragged along it until it meets the hard vein of earth or stone, when the stock is bent or broken, and the anchor is drawn from the ground, catching the cables of the ships as they sheer about with the wind or tide. In my anchor this difficulty is entirely avoided, for, when the flukes are sunk in the mud, there is nothing above the ground which can catch a chain or hawser. In anchoring upon a lee shore, the anchor, being disposed as above, will take a double hold of the ground, thus rendering the anchorage more secure.

Specification 4.—If one of the flukes or shanks should be broken near the elbow or crown, (the place where they usually break,) this anchor can yet be made available by lashing a spar of the length of the shank and one fluke, across the remaining shank, to the spur or brace, G, as in fig. 3. It then becomes the same as the common one fluked mooring anchor, and can be used in the same manner, or as the double anchor described in the third specification, by securing to the ends of the spar a temporary stock, a rope of twice its length, and from the middle or bight of that extend another to the ring at the elbow, then at the bight, or where the ropes are united, secure a buoy or small cask, and let go the anchor, the fluke will strike the point into the ground. Or it can be lowered down by a rope made fast to the elbow or crown, as is the mode with the mooring anchor now in use. In the old form of anchor, if the shank is broken, both flukes are lost, and the anchor is useless.

Specification 5.—It is frequently necessary to carry out anchors in boats; which service, if in the night time, or in a heavy sea, is always attended with great peril, because of the anchor stock lying athwart the boat's gunwales, embarrassing the men in rowing and its liability to turn, and the stock catching in the boat's quarter, when about to be let go. In carrying out this anchor of my invention, there is no such danger. There being no stock, it lies along the middle of the boat, with flukes over the stern; and when the hawser is run out, the anchor follows, without the possibility of fouling or catching in the boat.

Specification 6.—By the mode in which this anchor is made, greater strength is insured than can be obtained in the old one with the same weight, each shank and fluke being in shaft forged into shape, and then heated at the proper place, and bent into the form requisite, without the necessity of welding any part but the spur or brace of the stock. In the old anchor there must be a weld (and commonly there are two) at the crown; and there they most frequently break.

Specification 7.—While making a passage, this anchor can be readily stowed by withdrawing the key, H, and lifting the shank, B, from the spur, G, and laying it upon the shank, A. The anchor, thus closed, occupies but little space. This can be done while the anchor hangs at the cat-head, and with greater ease than when on the deck, by taking out the key, drawing the shank, B, and allowing it to drop to its level. Then, by the tackle hooked to the spur, it is taken over the ship's side.

Specification 8.—In case of extremity this anchor can be separated and used as two, by lashing across the shank, A, at G, a spar for a temporary stock, and driving through the hole in the shank, B, at H, a handspike, and lashing thereto a spar, as on the shank, A, then rig them with buoys, as described in specification 4, and illustrated in fig. 3. Thus arranged, the anchor being provided with two rings, can be shackled to two chains or cables, thereby securing greater safety to the ship than if moored with but one.

What I claim as my invention, and desire to secure by Letters Patent, is the above described anchor for holding ships.

gears as in fig. 2 of the drawings, becoming in effect a double "mooring anchor" which sinks with certainty both flukes in the ground by attaching to the middle of the spar chain, I, which connects the two elbows, and is twice the length of one of the flukes, an empty beef barrel, small water cask, or anything of sufficient buoyancy to insure the turning of the flukes down by its resistance to the sinking of the anchor. To this chain the buoy rope is also made fast. In many ports ships are obliged to lie moored, and this inconvenience is experienced with the old form of anchor, by the fluke which stands up from the ground catching the cables of the ships as they sheer about with the wind or tide. In my anchor this difficulty is entirely avoided, for, when the flukes are sunk in the mud, there is nothing above the ground which can catch a chain or hawser. In anchoring upon a lee shore, the anchor, being disposed as above, will take a double hold of the ground, thus rendering the anchorage more secure.

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What I claim as my invention, and desire to secure by Letters Patent, is the above described anchor for holding ships.

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