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LIST OF PATENT CLAIMS

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FOR THE WEEK ENDING JUNE 25, 1856.

SELF-RAKING SAW—Aza Arnold, of Washington, D. C.: I claim the combination of a retreating motion, as set forth, with the two edged reciprocating saw, by which combination I can give any desired adjustment of cut and feed, at pleasure, to enable the saw to cutduringits whole descent.

PRINTING INSTRUMENTS FOR THE BLIND—A. Ely Beach, of Stratford, Conn.: I claim, first, causing the types to strike at a common center, substantially in the manner and for the purposes set forth.

Second, connecting each of the type keys, or their equivalents, with the escapement, by meaus of a common connection, substantially as described.

SMOOTHING IRONS—Leander W. Boynton, of Worcester, Mass.: I claim forming the lower part of the iron, with side walls projecting above the upper surface thereof, for the double purpose of securing the upper portion to the lower portion, and directing the draft in heating the upper surface of the said lower portion, as set forth, it being understood, however, that I do not claim in itself the making the iron in two portions, with the handle attached to the upper portion, as that is not new, but only the mode of construction, as claimed.

HEMP BREAKERS—R. W. Bowen, of Marshall, Mo.: I claim the peculiar construction of the upper and lower blades of the break, so that they shall approach each other at the same moment, but with different velocities, substantially in the manner described, that is to say, pivoting the lower blades at or near their front ends, in a firm frame, and connecting their rear ends to the top blades, which are pivoted at a point about two-thirds of their length, in a solid frame, and operated in front in any well known manner, for the purposes set forth.

FIRE ARMS—Fordyce Beals, of New Haven, Conn.: I do not claim the use of a metallic frame connected with a chambered breech or cylinder, by means of a pin passing through the frame and cylinder.

Neither do I claim rotating the chambered breech by means of a pawl and ratchet in connection with the hammer.

But I claim the arrangement and combination of parts using the arm pivot or axis in connection with the pawl and hammer, for the purpose of rotating the chambered breech or cylinder, all of which are in the manner and for the purpose described, using the arm pivot or axis in its combination and arrangement of parts, or any other contrivance, substantially the same and producing the same effect.

ALARM LOCK—Julius Cone, of Yellow Springs, Ohio: I claim disconnecting the knob shaft from the latch bolt, thereby dispensing with a key, key hole, separate key bolt, and all devices for operating a key bolt, in the manner set forth.

I also claim placing the alarm spring and scape wheel upon the knob shaft itself, when combined with the arrangement for connecting said knob shaft with, and disconnecting it from the alarm, so that said alarm may not interfere with the ordinary use of the lock simply for a latch.

I also claim the disk, p, constructed and operating in connection with the bolt, alarm, and ward spring, substantially as described, and for accomplishing the various purposes specified.

I also claim the ward spring, M, constructed and arranged, substantially in the manner and for the purposes set forth.

I also claim the notch, j, in the knob shaft, in combination with the slot, k, in the bolt, when arranged and operating substantially in the manner and for the purpose described.

SECURING SHAFTS TO AXLES—Wm, Cox, of Doylestown, Pa.: I claim the two bars, E F, with the jaws, c e, attached to them; the bars, F, being elastic, and having a screw, G, passing through it, on which a nut, f, is fitted. The bars, E F, being attached to the axle, A, substantially as described for the purpose specified.

VISE—H. B. Chaffee, of New York City: I claim the supplementary jaw, E, pivoted to the stationary jaw, A, of the vise, and connected with the weighted pawl, F, substantially as shown, for the purpose set forth.

LIME AND GUANO SPREADERS—Wm. Croasdale, of Hartsville, Pa.; I claim the combination of the cylinder, B, composed in part of the movable strips, s, with the rubbers, M, both being constructed and arranged substantially in the manner and for the purposes set forth.

LOCOMOTIVE LAMPS—S. E. and H. B. Cleaveland, of Buffalo, N. Y.: We claim the arrangement and combination of the valve, A, with the plunger, B, and spring, D D, for the purpose of forcing the oil from the can or reservoir to the burner or wick, substantially as set forth.

ROTARY PUMPS—S. D. Carpenter, of Madison, Wis.: I claim the cones, D D, connected by the propeller, L L L L, in combination with the diaphragm or disk, E E, operating in the manner and for the purpose specified.

I also claim the semi-spherical shells, 2 and 3, in combination with the conducting pipes, arranged substantially in the manner and for the purpose specified.

REAPERS—Owen Dorsey, of Triadelphia, Md.: I do not claim the raking attachment, for that was formerly patented by me.

But I claim driving the sickle or communicating motion thereto, by means of the crank pulley, G, pitman, H, arms, I K L, and shaft, J, arranged as shown, whereby four vibrations of the sickle are obtained at every revolution of the crank pulley, G.

WATER WHEEL—W. M. Davis, of Carmel, Me.: I claim the combination of the scroll plate and water pitches, to secure more beneficially, the direct action of the water in combination with the cone spreading the bottom of the wheel with a curved float, narrowed at the bottom and set spirally upon the cone, which, with the scroll plate and pitches secures the full direct action and re-action force of the water upon the wheel, as set forth.

EDGE PLANES—I. A. Dunham, of North Bridgewater, Mass.: I do not claim a molding stock formed with a throat, so as to receive a movable and adjustable molding cutter; nor do I claim so making a cutter that its molding surface and cutting edge shall be made in one piece of metal.

I claim my improved tool having part of its molding edge stationary and formed with a cutting edge, as specified, and the other part of said molding edge made movable with respect to the first, as specified, and so that while cutting with the tool, the molding surfaces of both parts may rest in contact with the material which is to be cut, my tool enabling me also to polish the reduced surface while a shaving is being removed.

COOLING AND DRAWING FLUIDS FROM CASKS—F. Espenschade, of Williamsport, Pa.: I claim the vessel, C, provided with an ice chamber, E, and having a pump connected with it and the vessel communicating with the barrel, A, by means of the pipe, G, the above parts being arranged substantially as shown for the purpose specified.

FELLING TREES BY SAWS—Geo. C. Ehrsam, of New York City: I claim the collar or band, A, with annular rotating rack or rim, C, attached, and the chisel or cutter, G, fitted within the socket, D, which is attached to the rack or rim, the chisel or cutter having portions of screw threads, f, on its under side, which fit between a spiral thread, E, on the collar or band, A, the whole being arranged substantially as shown for the purpose set forth.

DETACHING HORSES FROM VEHICLES—F. M. English, of Hopkinsville, Ky.: I claim the described combination of pins, P P', with the levers, L L', constructed, arranged, and operating substantially as and for the purposes set forth.

HANGING GRIND STONES—David Hinman, of Berea, Ohio—I claim hanging grind stones in the manner described, having the shaft and flange with or without a cast in one piece with the stone firmly secured thereto by the shrinking of the metal, as set forth.

CUT-OFFS—H. J. and Thos. Hawkins, of Mobile, Ala.: We claim the adjustable cam and self-inserting toe which when combined together on any rock shaft motion for working steam valves, can cut off the steam at any given point on either motion of the piston at a moment's notice, as set forth.

SEED PLANTERS—George Hall, of Morgantown, Va.: I claim hinging the cams that operate the seed slides to the face of the drive wheels, so that they can be swung into or within recesses cut in the face of said wheel, for the purpose of adapting the machine to planting at variable distances apart, as set forth.

PLOTTING INSTRUMENTS—C. R. Iliff of Falmouth, Ky.: In my instrument for constructing geometrical lines, I do not claim the trammel, nor any of the separate adjustments described, in themselves separately.

But I claim the combination of the trammel constructed substantially as specified, with the drawing stand which is provided with the angular and off-set adjustments, as described, whereby an instrument of greatly increased capability is produced.

WRENCH FOR GAS PIPE.—G. A. Jenks, of Worcester, Mass., I do not claim the pipe tongs, made as described, with a curved movable jaw affixed by a pin to a handle having a station jaw, and not provided with a screw adjustment; and I do not claim the combination as patented by the said Bartholomew & Merrick, and on which my invention is an improvement.

But I claim arranging the hook or claw, G, and the spring, E, with respect to the slide, C, and the main bar, A, and hinging or jointing the claw directly to the slide, C, substantially as exhibited.

ENVELOPES—R. T. Knight, of Philadelphia, Pa.: I claim the lapping of the ends of the envelope, b b, fig. 2, when they are to be secured by metallic eyelets, as set forth.

ICE BOATS.—Daniel Large, of Philadelphia, Pa.: I claim the arranging, in the after part of the boat, of the two troughs, for throwing by the power and impulse given by the paddle wheels, the broken and floating ice upon the fast ice on each side of the channel, and thereby keeping the water clear for the passage of vessels, as described.

PORTABLE FIELD FENCE—B. F. Lyon, of Pleasantville, Pa.: I claim, first, the construction of the mortise in my fence posts, in the manner described.

Second, I claim the construction of my rails, in the manner described, with the shonlders and ends of the dovetail round, and also with the dovetails, H and I, made reverse, as shown, and on the opposite sides of the rails.

RUNNING GEAR OF CARRIAGES—Richard Murdoch of Baltimore, Md.: I disc laim the short axles and the manner of turning them about their attachments; such constituting no part of my invention.

I also disclaim supporting the extremities of the axles on stationary train ways during their movement.

But I claim the swivel bar, c, and boxes, b b, in combination with the short axles, a a, connected with the extremities of the cross bar, substantially as described, operating as and for the purposes specified.

TOOL FOR CUTTING METALS—John Mooney, of Providence, R. I.: I claim the use of the blade or cutter, o, of a separate piece of metal inserted in an adjustable clamp, G, constructed and operated in the manner and for the purpose set forth.

TURNING TAPERING FORMS—H. E. Salisbury, of Platea, Pa.: I claim the manner described for operating the revolving cutters, namely, by means of cam, Y, lever, Z, movable face plate, E, with radiating arm, b, passing through slots, c', with slides, d, on revolving face plate, F, for the purpose of opening and closing the cutters, as described, and holding the timber stationary.

I also claim the movable center piece operating as described, and for the purposes set forth, in combination with the feed motion, as set forth.

RUNNING GEAR OF VEHICLES.—Henry Phelps, of White Hall, N. C.: I disclaim spring coupling for vehicles broadly considered, as various devices have been employed for that purpose.

I claim the combination of the elastic rods, i and m, with the rods, c c, d d, e, jointed at f, as described, and operating as and for the purposes set forth.

TUBULAR ELASTIC VALVES—Franklin Peale, of Philadelphia, Pa.: I claim the described method of adapting flexible valves to flexible tubes, and inserting them therein, in the manner set forth and shown.

WIND WHEELS—Francis Peabody, of Salem, Mass.: I claim regulating the velocity of the wind wheel by means of the secondary blades, B, operated in the manner substantially as set forth.

HAND SEEDING MACHINES—S. G. Randall, of Rockford, Ill.: I claim, in combination with the reciprocating motion of the seed slide, the locking and unlocking of it, at each planting operation, so that the tongue shall be firmly held against the resistance of the earth in forcing it, and the sheath therein, substantially as described.

MAKING RAKE TEETH—C. R. Soule, of Fairfield, Vt.: I claim the shaft, C, with loose pulley, D and G, and projection, a, attached and used in connection with the frame, E, and lever, F, with rod, I, attached, and the lever, I, connected with arm, s, having the spring, t, attached. The arm, G, having the lever, H, secured to its end; the above parts being arranged and operating as shown for the purpose specified.

PUG MILL—C. F. Schlickeysen, of Berlin, Prussia.—Patented in England Feb. 24, 1856: I do not intend to claim the use of radial blades or beaters for forcing down clay into or through molds or dies, as that has long been practiced.

But I claim, first, the employment of the clearing knife K, in combination with the hopper, b, the tapering case, c, and beaters, h, operating in the manner substantially as described.

Second, I claim the rotating bottom, m, in combination with the beaters, h, operating in the manner substantially as described.

FOUNTAIN LAMPS—Nicholas Linden, of Jersey City: N. J.: I claim constructing the reservoir, C, of two cylinders, D E, one placed within the other, the inner cylinder, E, being provided with a valve, c, attached to springs, d d, said valve being opened at the proper points by the projections, e e, on the inner side of the cylinder, D, substantially as described for the purpose specified.

WASHING MACHINES—V. R. Stewart, of Weedsport, N. Y.: I claim the combination of the corrugated or fluted cylinder, B, and reciprocating board, M, arranged as shown and described for the purpose specified.

TIDAL ALARM BUOY—John Taggart, of Roxbury, Mass. I claim the combination and arrangement of the air tank, D, the stream or current wheel, C, the bell, G', and mechanism, substantially as described, for causing said bell to be sounded during the rotary movements of the wheel, produced by the action of a current in the water, as set forth.

I also claim arranging or combining with the stream wheel, the bell, the striking apparatus and air tank, in manner as set forth, the enclosing or guard frame, A, and the pendulum or weighted lever, B, applied thereto, the same operating together, substantially in the manner as described.

SAFETY HATCHES—W. H. Thompson & E. P. Morgan, of Biddeford, Me.: We claim an elevator having arms or guides attached to the traveling car or platform, either above or below it, together with the sliding or hinged movable doors, which remain stationary when the elevator is not in use, and are opened by the action of the car or suitable attachments to the same as it passes upwards or downwards through the several stories of the building.

CUT-OFF VALVES—Wm. Wright, of Hartford, Conn.: I claim so combining the lifting toe with the lift rod, by means of a supplemental toe or slide bolt, that the arc or curve described by the vibration of the lifting toe, shall effect a lateral movement of the bolt, thereby tripping the valve, as described.

HARVESTERS—C. B. Wagner, of Philadelphia, Pa.: I claim, in combination with the main supporting and driving wheel, D, and the mainframe, A, and its supporting wheel, Q, the tongue frame, B, so united that the motion of one shall not injuriously affect the action of the others, as set forth.

FIRE ARMS—James Warner, of Springfield, Mass.: I claim, first, the combination of the recoil and adjusting pin with the revolving breech, placed in the shield plate in such position that the point shall be in line with the barrel, as described.

Secondly, I claim forming cavities in the battery plate, in such position and of such form as to receive and hold the ball or balls in case of the accidental discharge of any of the chambers not in adjustment with the barrel, as described.

DIVIDING SHOE FOR MOWING MACHINES—Walter A. Wood, of Hoosick Falls, N. Y.: I claim the particular form and construction of a dividing shoe for mowing machines, as described, by means of which the grass on either side of it, is divided and bent over without breaking or crushing, so that the sickle will reach it all, and thus prevent combing or ridging, substantially as set forth.

CUTTING APPARATUS FOR HARVESTERS—C. B. Wagner, of Philadelphia, Pa.: I do not singly claim forming the finger or guard of a harvesting machine with the hollow or depression, c a.

I claim forming the finger or guard having said depression, with an additional depression, b, and so uniting the sickle and sickle bar thereto, as to facilitate and render easy the cutting, substantially in the manner set forth.

SAFETY FLUID CANS—S. E. Winslow, of Philadelphia, Pa.: I claim the conical form of the wire cloth strainer with a small aperture at its apex or side, which may be adapted to the lower part of lamp tops and to cans; and I do hereby disclaim any application of said conical strainer to the caps of a lamp, with an orifice in said cap through which the lamp may be filled.

CUT-OFF VALVE CHECKS—Wm. Wright, of Hartford, Conn.: I claim the arrangement for retarding the descent of the valve, namely, the combination of the bell crank, q r, with the valve on the one part, and the dash pot, or equivalent resisting apparatus, on the other, so coupled and operating that the arm of the crank to which the valve is attached, shall be approaching its greatest throw, thereby checking the rate of descent of the valve by a force compounded of the diminished speed and diminished pressure, as described.

SPRING BOTTOMS—Alvah Foote, of Blandford, Mass.: assignor to himself, Ira Russell, of Dedham, Mass., and A. B. R. Sprague, and Henry Phelps, of Worcester, Mass. I am fully aware that a combination consisting of a suspension spring, a thrust spring and a curved arch spring placed between them, while the two former springs are arranged so that one shall be directly over the other, is not new, and that the some is applied to a bedstead that was patented by Ira Russell, on the 16th Sept, 1851; therefore I do not claim such, but only my improvement thereon, where by the same when so applied, can be set up or rendered more or less flexible.

I claim with the bedstead and its system of bands, D D E E, and springs, F F, the extension devices or bars, B B, and screws, C C, whereby advantages as stated are attained.

GRAIN DRILLS—Abraham Fravel (assignor to himself and T. D. Lemon) of La Porte: I claim the combination of tooth, F, cutter, F', and lever, G, with shoe, C, guard, D, and tumbler, M, the whole being arranged and operated substantially as shown for the purposes specified.

OPERATING STEAM VALVES—Remy Henry, of Melrose, N. Y., assignor to James Smith of New York City: I do not claim attaching the pistons of a steam cylinder and a pump to one rod and operating the pump by the direct connection; nor do I claim operating the valve of a steam cylinder by the piston.

I claim first giving motion to the steam valves of a steam pump by the alternate action of the steam and pump pistons in the manner described.

Second, the combination of the sleeve, F, the lever, L, the fork, O, and the spring, N, to communicate the requisite movement to the steam valve.

SHIELD TO PROTECT BREAST PINS—John H. Phillips, (assignor to Leigh R. Holmead,) of Washington, D. C: I claim the employment of a shield or plate with one or more lips or lugs, for the purposes specified.

FARM GATE—George Taylor, of Richmond, Ind., assignor to Harrison Ogborn and George W. Stigleman, of Wayne County, Ind.: I am aware that self-acting gates differently constructed but operated by the wheel of the carriage coming in contact with the road levers, F, F, have be ore been employed; such parts, of themselves, I do not claim.

But I claim the combination of a gate, A, with the angular lever, D or D', in such a manner, and so related to each other that the gate shall stand upon a level both when open or closed—these or their equivalents—substantially as set forth.

And I further claim the combination of the cam, J, with the lever, D', or its equivalent, for the purpose of vibrating the levers, D D', thereby opening and closing the gate, substantially as described.

LOOMS—Lucius J. Knowles, of Warren, Mass.: I do not claim the combination of the vibrator, P, and the angular notch o, with either of the levers or jacks, G, of the harnesses, and so as to operate in connection with the lifter rod, I, substantially as before specified, because I am aware that such has been the subject or a portion of the invention for which a patent was granted to Benjamin F. Rice on the 18th day of October, 1853, my invention being in part an improvement thereon and subordinate thereto; nor do I claim for operating the vibrator the mode described in the patent of the said Rice, wherein the pattern chain is represented as having an intermediate rotary motion while at work, and made to move the vibrator by the alternate actions of pins and hooks in a cam groove formed at the upper part of the vibrator, or in an arm projecting above its fulcrum, my improvement enabling the spring arm not only to perform all the functions necessary to move the vibrator, but the additional one, viz., that of allowing the toothed cylinder, M, to be continually revolved, important advantages both in the construction and operation being gained thereby.

What I claim, is the application of the spring, R, to the jack, G, the vibrator, P, and the toothed cylinder, substantially in manner and under their arrangement, as described, in order to enable the cylinder, M, not only to effect the movements of the vibrator by the aid of its spring, but to be continuously rotated or maintained in constant and not in intermittent rotary motion, all substantially as specified.

I also claim combining the double shuttle or drop box, C, with one of the levers or jacks, G, operated as described, by means substantially as explained, viz., the rod, S, the elevator, U, the friction roller, T, and slide bar, V, and so that such drop box may be operated by the toothed cylinder of the harness levers or jacks.

RE-ISSUES.

BELLOWS FOR MUSICAL INSTRUMENTS.—Jeremiah Carhart, of New York City. Patent dated Dec. 28, 1846: I claim the combination of the reeds with an exhaust chamber of variable capacity, and an air pump, whose action exhausts and rarifies the air therein, the exhaust chamber tending to expand with a force that will balance the rarification to be preserved in the chamber, for the purposes set forth.

ANNEALING FURNACE—J. Joseph Eagleton, of New York City. Patent dated May 20th, 1856: I claim charging and discharging an annealing furnace in bulk substantially in the manner and for the purposes set forth.

I also claim opening the bottom of the annealer, for the purpose of discharging its contents and recharging it, as set forth.

I also claim the employment of a continuous heat; with an air-tight annealer, substantially as described, by which iron ware can be annealed with the same facility as brass and copper, where the air is not required to be exhausted.

DESIGNS.

STOVES—S. W. Gibbs of Albany, N. Y., assignor to North, Chase & North, of Philadelphia, Pa.

STOVES—Samuel F. Pratt, of Boston, Mass., assignor to W. & J. Treadwell, Perry, & Norton, of Albany, N. Y.

STOVES—N. S. Vedder and William L. Sanderson, of Troy, N. Y., assignors to North, Chase & North, of Philadelphia, Pa.

COOKING STOVES—Garrettson Smith, Henry Brown & J. A. Read, (assignors to Leibrandt McDowell & Co.) of Philadelphia, Pa.

Lightning and Epidemics.

Lightning and thunder storms have generally been held as great agents of atmospheric purification, and conservators of public health but E. Merriam, the meteorologist and "Weather Clerk," of Brooklyn, has propagated an opposite theory, namely, that a season of great heat attended by lightning, is always more fruitful of disease and death, than periods of equal heat without free atmospheric electricity. This is a question that deserves more attention than it has hitherto received.

Sandstones for Building.

The last number of the *Mining Magazine* contains a paper recently read before the Boston Society of Natural History, by F. Alger, on the above subject. Samples were exhibited of the New Jersey sandstone, of which New York Trinity church is built; also of the Connecticut brown sandstone, which is more generally used than any other; also a new kind from Nova Scotia. The preference was given to the latter. The New Jersey stone was considered next in quality, while the Connecticut stone was held to be inferior to both. The Nova Scotia stone contained no carbonate of lime, and no sulphuret of iron; neither does the Jersey stone, while the Connecticut kind contains both carbonate of lime, mica, and some sulphate of iron. These substances in sandstone detract from its durability and cause the stone to split off in scales, when subjected to excessive heat. A cubic foot of Nova Scotia sandstone weighs 155 pounds; the same bulk of Jersey stone weighs 149 pounds; while the Connecticut stone weighs 157 pounds per cubic foot. The great amount of iron which the latter contains is the cause of its greater weight. All these sandstones belong to the sedimentary group of the old or new Red sandstone, and accompany the coal formations. Many of the fine old buildings in Great Britain are composed of these—such as the famous Abbey of Melrose, the Glasgow Cathedral, &c.; and so durable have they proved to be, that although they have stood since 1142—714 years—the most minute moldings and decorations are yet in perfect condition. All sandstones do not possess the same durable qualities. Some of them soon molder and decay by exposure to the weather. Sandstones containing deep red streaks are not to be depended on, as these marks are evidences of the presence of oxyd of iron, which soon crumbles out. It is true that the face of sandstone can be preserved by paint, but then it is much cheaper to use brick than such stone, and it looks nearly as well in a building. Sandstone of a close, fine, uniform grain should always be selected, and it should always be laid down in a building in the same position its layers occupy in *situ*—that is, horizontally. No stone, marble, or sandstone should ever be laid up in a building with their planes of stratification vertical; and yet we have seen many thus laid. Every person knows, or should know that they cannot when thus laid, stand such a crushing force; they are liable to split down through these planes when superincumbent weight is placed upon them. The edges only of the layers of stones should be exposed to the weather, because if placed otherwise they are more liable to crumble and decay, in climates like ours, where there is much moisture and frost. If a block of sandstone be immersed in a saturated solution of the sulphate of soda for a few hours, then exposed to the atmosphere for a few days, crystalization will take place within the pores of the stone and cause the same disintegration that is produced by frost. This is Dr. Ure's test of the durable character of sandstones; it is one that requires but a very short time to perform, and should not be neglected by those who are engaged in building houses for themselves, or others.

Mercantile Library Association.

We are indebted to S. Hastings Grant, Esq., for a copy of the Twenty-fifth Annual Report of the Mercantile Library Association. Besides the ordinary transactions of the Society, it also contains a brief report of the observations on foreign libraries, made by Mr. Grant during his recent trip to Europe. The library contains 47,000 volumes, and the reading room is supplied regularly with 160 magazines and 120 newspapers in seven different languages.