



[Reported Officially for the Scientific American.]

LIST OF PATENT CLAIMS

Issued from the United States Patent Office FOR THE WEEK ENDING FEB. 5, 1856.

**BELL STENCH TRAP**—Chas. H. Eush, of Fall River, Mass.: I do not claim as new in themselves the perforated plate, or grating, or bell, or cup, with surrounding chamber and central exit pipe, arranged as described, to form, in combination, a stink trap for sinks, as such is old, and commonly known as the bell stench trap. But I claim providing the said grating or perforated plate, B, of the sink with a funnel neck or tube, F, arranged centrally, over, and in combination with the bell or cup, D, made separate or detached from the grating for operation together, as shown and described, for greater convenience in the use of the trap, and for the purpose, with total exemption from escape of effluvia in the apartment wherein the sink is placed under every use of the trap, by funnel or otherwise, as set forth.

**CORN DRYER**—Solomon Fernheisel, of Tyrone Township, Pa.: I claim the perforated pipes, n, s, and s, in combination with the hopper placed above the hot air chamber, A, as described, so as to allow the air to pass between the inner perforated pipe and the smoke pipe, while the hot air from chamber D passes through the outer perforated pipe and the exterior pipe or casing, O, substantially in the manner and for the purposes set forth.

**ORE WASHER**—Wm. Ball, of Chicopee, Mass.: I claim in machines for washing pulverized ores, the trough, I, constructed with the ledge, K, as described, and operated in connection with a head of water kept above the level of the said ledge, in the manner set forth.

**RAKING ATTACHMENT TO HARVESTERS**—A. H. Caryl, of Sandusky, O.: I do not claim a reciprocating rake placed beneath the platform, C, for that has been previously used. But I claim operating the rake, that is, the rod, E, provided with teeth, b, by means of the weight, I, and pulley, G, the weight and pulley being connected to the rod, E, by chains, f, and otherwise arranged substantially as shown and described.

**PHOTOGRAPHIC PLATE FOR VISE**—Levi Chapman, of New York City: I do not claim fitting a jaw with a limited motion combined with a sliding jaw, retained by a ratchet or pins, as metallic vises have heretofore been constructed on this plan. But I claim the arrangement of the jaw, d, d, with the piece, s, between the slides, 4, 4, and between the cross piece, s, and the slides, 4, 4, or its equivalent, when combined with the jaw, c, changeable in the grooves, 2, 2, in the sides, b, b, of the trough, in the manner and for the purposes specified.

**LOGS FOR CAST-IRON SHINGLES**—John Cook, of Westmoreland, N. Y.: I do not pretend to have invented cast-iron shingles, or giving them any particular form or external shape, nor do I claim them with the rib, a, or the half-round flange, b, or the lap, c, or the elevations, g, as all these contrivances have been heretofore in use. But I claim the projection, e, with the nail hole, f, on the under side of the shingle for fastening the same to the rib, either on its upper or lower edge, at choice, and for securing the nail from the wet, thereby preventing it from rusting and becoming loose.

**PUMPS**—Edward N. Dickerson, of New York City, and Elisha K. Root, of Hartford, Conn.: We claim, first, two buckets working in pump barrels, so arranged that the column to be raised passes through both in succession, in combination with the spiral cans or their equivalents, so arranged as to move said buckets with uniform velocity, and to maintain, practically, a uniform and constant lifting action upon the water, substantially in the manner described. Second, imparting to the column of water, by means of a reciprocating pump, a constant and uniform flow through the ascending main, substantially as described.

**HEATING FEED WATER APPARATUS FOR LOCOMOTIVES**—Peter S. Ebbert, of Chicago, Ill.: I claim the auxiliary pipe, y, arranged in relation to the part of the main pipe containing a valve, so that communication may exist between the water space of the boiler, and the interior of the feed water pipes in the smoke stack, when the feed pump is not in operation, as set forth.

**SAW SET**—John G. Ernst, of York, Pa.: I claim the expanding arms, a, in connection with the plate, c, and screw, nut, E, arranged and operated in the manner described.

**CUTTING FILES**—Major H. Fisher, of Sing Sing, N. Y., assigner to J. Hyde, of Bridgeport, Mass.: I claim the sliding and self-adjusting chisel holder, z, constructed and operated substantially as described.

**THREE WHEELED VEHICLES**—Elisha S. French, of Binghamton, N. Y.: I claim the combination and arrangement at the rear of the vehicle, substantially as shown and described, of the castor hung swiveling wheel, F, in such connection with the perch or body, that while in the forward run of the vehicle the said wheel runs in a parallel course with the other two advance wheels, and at considerable distance behind them, it in backing the vehicle is caused to occupy a like parallel and central position, with its rimor tire in direction of the travel but in closer proximity to the fore wheels, and on the reverse side of the swivel towards the front end of the vehicle, and out of the way, as it were, whereby additional facilities are afforded for backing the vehicle in a crowded thoroughfare, and the other advantages specified are obtained.

**FEED WATER APPARATUS TO STEAM BOILERS**—Thos. Fifth, of Cincinnati, O.: I claim the arrangement of the piston, q, beam, 10, pins, 29, 29, attached to the valve, 12, and spring, 12, or their equivalents, for giving motion to the steam valve, 12, for admitting steam to and from the steam cylinders, 4, 4, and pipes attached thereto.

**BENCH VISE**—Thos. Gisinger, of Allegheny, Pa.: I claim the projection, k, and the projections, l, and k, arranged as described, and for the purpose set forth.

**BENDING SHIP'S HOOKS**—Elisha Harris, of Providence, R. I.: I claim the roller or former, A, of the intended form of the interior of the hook provided with a pocket or clamp for securing the eye of the blank during the bending operation, substantially as described.

**MAKING ROPE**—Oliver S. Hazard and Isaac Peck, of Coventry, R. I.: We claim the movable self-adjusting trumpet guide, Z, as described.

**BRICK PRESSERS**—Henry J. Hughes, of Davenport, Iowa: I claim, firstly, the table actuated as described, or by any other equivalent means, by which the bricks are discharged after being pressed and by which they are borne away from the press head. Secondly, the specific arrangement described, for oiling the mold during its passage up and down over the head.

**HOT AIR FURNACES**—Samuel Macfarren, of Philadelphia, Pa.: I claim, first, connecting with the inner end of the bottom plate, Q, of the space, for supplying the furnace with fuel, a ring, N, for supporting and holding together the segmental plates of the fire pot, so as to enable said ring to be held firmly by its connection with the plate, O, which is secured to the front part of the furnace, as described. Second, I claim arranging the adjustable horizontal plate, P, in spaced initial edges in which the heating pipes fit above the fire pot, and capable of being raised and lowered for the double purpose of diverging the heat entirely around the said heating pipes and in contact with the sheet-iron radiating casing, and regulating the draft of the furnace, and in fact, converting into an air tight heater if desired, substantially as described.

**CARRIAGE SPRINGS**—Richard Montgomery, of New York City: I claim the corrugated spring, D, when used in connection with the spring, A, substantially as described.

**WEIGHING SCALES**—S. S. Mills & M. Bissell, of Charleston, S. C.: We claim connecting the scale beam, A, with arms, a, a', two or more, and otherwise arranged as shown, so that either of the weights on the arms may, when not in use, be placed in line with the fulcrum of the beam, substantially as described and for the purpose specified.

**FLOUR BOLTS**—Stephen C. Mendenhall, of Richmond, Ind.: I claim, first, the direct and positive expansion and contraction of the valves, g, g, between fixed and varying points in the manner and for purpose set forth. Second, I also claim the combination of the expanding and contracting valves, g, g, with the cords, d, d, d, pulleys, f, f, drums, x, x, x, and indicators, j, j, or their equivalents for the purpose specified.

**FIRE POKERS**—George R. Moore, of Mount Joy, Pa.: I claim the arrangements, or any of their equivalents, by which the several motions of the poker are obtained. Also the arrangement or its equivalent, for contracting the handle of the poker at pleasure.

**LANTERNS**—Francis Morandi, of Boston, Mass.: I claim the funnel, D, applied to the lantern, in the manner and for the purpose substantially as set forth.

**FASTENING FOR THE HINGES OF DAGUERROTYPY CASES**—Samuel Peck, of New Haven, Conn.: I claim the combination of the metal straps or supports with the material of the case when the same is plastic, so as to strengthen the case and form a secure fastening for the hinges, substantially as set forth.

**METALLIC SPRING**—Myer Phinney, of New York City: I claim the pen, a, when placed upon the upper side of the pen, and so constructed and arranged as to serve the twofold purpose described.

**OSCILLATING ENGINES**—Juan Patison, of Brooklyn, N. Y.: I claim the arrangement of parts, viz., the arched steam pipe saddle, hollow valve, and chest, substantially as described, for passage and distribution of steam on cylinders of oscillating steam engines.

**HARVESTERS**—B. F. Ray, of Baltimore, Md.: I claim, first, providing the main or driving wheel of reaping and mowing machines, with a stationary guard plate in the manner and for the purpose described. Second, the sliding bar arranged in the same horizontal plane with and perpendicular to the axle of the driving wheel of reaping and mowing machines, in combination with the bell crank, for the purpose of giving direct and positive motion to the cutting apparatus when arranged obliquely to the line of draft, substantially as described. Third, forming in the sliding bar a slot for the reception and operation of the bell crank, as set forth.

**SAW MILLS**—John S. Snider, of Lancaster, Ohio: I claim such construction of the scale wheel and its combination with the large cog wheel, G, that the position of the lever when on its rest, will be always zero, and that the log may be moved at both its ends equally any required distance, by raising the lever from its rest and counting one, eight or the same, (or a different fraction, according to the size of the wheel,) for each cog that the pawl may pass over and pressing the lever down again, up on its rest, when the requisite distance is obtained, so that the setting of the log requires no calculation or reference to a scale, and may be done with perfect accuracy by the ear or by the eye, and it is thus set at both ends by a single scale wheel and a single pawl, and the set necessarily is exactly alike at both ends, which is not the case where the ends are set each by its separate framing. I also claim the combination of wheels which are so adjusted as to effect the above-named objects, and also to give greater power to the lever in moving heavy logs and more accuracy in adjusting them, as the log is thus made to move slow in proportion to the motion of the lever, and is not subject to be put out of its place by its own momentum, or by the spring of the rods. In this construction and combination the journal and the pinion wheel and scale wheel are cast together, and the rod passes through the journal, and moves with it, so that the lever, when pressed down, moves the pinion wheel which gives motion to the wheel, which moves the head block slide, and at the same time, the journal moves the rod, and by it the tail block slide, so that the rod communicates motion to the tail block slide only, and is not put to the strain requisite to move both slides, and with them both ends of a heavy log. The combination and construction which produces the effect, I also claim.

**SEWING MACHINES**—Alfred Swingle, (assignor to Elmer Townsend,) of Boston, Mass.: I do not claim a tension apparatus composed of a spring bearing against a fixed surface or another spring, the thread being down between the two. But I claim as a tension apparatus the combination of a rotary groove roller and a pressure roller operating by means of a spring or its equivalent, essentially as specified, the same when a wax thread is used, producing advantages substantially as stated.

**CONSTRUCTING CAST-IRON BUILDINGS**—Harriet V. Terry, admr. of Wm. D. Terry, dec'd of Boston, Mass.: I would state that I do not claim the boxes and ties when used separately, as this has been done before. But I claim forming cast-iron hollow walls for buildings by means of the combined use of the boxes, plates, and tie pieces, provided with rebates and tongues for firmly uniting them together, substantially in the manner described.

**ALARM LOCK**—S. J. Frank, of Guilford Center, N. Y.: I claim the use of the spring, G, and rod, J, when used in connection with the plate, L, arranged and operated in the manner set forth.

**WROUGHT IRON SHAFTS**—Otis Tufts, of Boston, Mass.: I claim constructing large wrought-iron shafts with pieces separately wrought and fastened together, substantially as described.

**SOFTENING LEATHER**—John B. Wentworth, of Lynn, Mass.: I do not claim boarding a skin by doubling it and performing the remainder of the operation between two boards, by manual labor in the usual way. I claim the combination of the rollers by the rotary boarder, F, and the bar or concave, E, arranged and made to operate together, substantially as set forth. I also claim the combination of the holding and draft mechanism, or rollers, I, I, I, with the boarding mechanism or rollers, the boarder and concave or bars, as specified. I also claim the napping or filing mechanism, or roller, M, and bed, L, in combination with the boarding mechanism, and the holding and feed rollers thereof. I also claim combining with the movable table or bed, k, the rollers, G, H, and bed, L, so that they may be moved simultaneously by either, towards or away from the boarder, F, the bed, E, and rollers, I, and M, made of a series of separate rubbers, springs, and holding frame, as set forth, applying the sectional rubber to the frame by means substantially as described, viz., by a bar f, and movable end, b', whereby the rubbers may be either detached from the frame, or maintained without it, as specified.

**GRAIN AND GRASS HARVESTERS**—Abner Whitley, of Springfield, O.: I do not claim oscillating the finger bar about an axis within itself, irrespective of the relations between the main frame and the master wheel shaft, as described, or otherwise, the result being substantially the same, that the driver is enabled, while the team is in motion, and the master wheel shaft being rigidly connected with the main frame to change the angle of the fingers and cutters without moving the finger bar from the ground.

**BELT FASTENINGS**—Abner Whitley, of Springfield, O.: I claim the hook, B, made as described, for the purposes set forth.

**DOCTORS OF CALICO PRINTING MACHINES**—John Standing, of Fall River, Mass. (assignor to himself and James Baxendale, of Providence, R. I.): I do not claim applying to the shaft of the doctor, R, I, a mechanism for imparting to it a variable reciprocating motion, as such by no means is new, but having invented for such purpose a new mechanism which is very simple in its construction and efficient in operation, one possessing decided advantages over most if not all others in use to effect such a result. I claim the combination of the eccentric to the crank, k, the connecting rod, I, and lever, G, so applied to the shaft, C, and the shaft of the doctor, and made to operate the doctor, substantially as specified.

**WRITING DESKS**—C. H. Bergmann, of New York City: I claim to construct the upper box of writing desks with adjustable or expanding sides, in the manner and substantially as specified.

**CHAMBERED BREECH LOADING CANNON**—C. C. Terrell, of Shullsburgh, Wis. (assignor to himself and Samuel Crawford, of Mineral Point, Wis.): Though I do not claim the invention of the wedge to force a movable chambered breech into connection with the barrel, I claim the combination of lock lever, N, the wedge, i, and the two, h, h, in any manner substantially as described, for the purpose of forcing up and drawing back the breech to and from the barrel. Second, I claim the priming tube, m, combined with the stationary priming magazine, P, to take a new priming therefrom every time the position of the breech is changed by attaching it to the lock lever, N, and furnishing it with a wedge or inclined projection, 14, to open the valve of the magazine, when the lever is raised to unlock the breech, substantially as described. Third, the combination and arrangement of the hammer trigger, and manspring with a lock lever, N, which is employed to lock and unlock the breech to and from the barrel, substantially as set forth.

**ATTACHING COMPOSITION SOLES TO BOOTS AND SHOES**—John M. Wimley (assignor to himself and W. H. Penrose,) of Philadelphia, Pa.: I do not claim the mold, nor do I confine my claim to any particular form of the staples or nails by which the sole is secured to the boot or shoe. I claim the use of the staples, D, D, in the manner substantially as described, for the purpose of attaching composition soles to boots and shoes.

**RE-ISSUES.**

**TONGUING AND GROOVING MACHINES**—C. W. Brown, of Boston, Mass. Patented originally Aug. 14th, 1844: I claim giving a lateral movement to either of the edge cutters by any suitable arrangement of mechanical devices, while the board is being fed through the machine, so as to adapt the edge cutter to any taper of the board. Second, I claim arranging the box or tearing of the shaft, either of the edge cutters, so as to slide laterally on a rail, and connecting said box or bearing to a sliding guide bar, which bar is governed or regulated in its movements by the edge of the board, and kept up against said edge by means of a weight operating on it, so as to press it laterally, through the medium of a rack and pinion, as set forth, the mechanical arrangement and operation being substantially as specified. Third, I claim the combination of the sliding bolts, r, r', with the turning rod, o, o', having right angular arms, n, n', n', p, p', and pawl, l', and ratchet wheel, k', on the end of the shaft, which the weight, i, turns or revolves, said combination being arranged substantially as set forth, and for the purpose of permitting or checking the operation of said weight, i, upon the sliding guide bar, d', as specified.

**ADDITIONAL IMPROVEMENT.**

**CANDLESTICKS**—Abner Whitley, of Springfield, Ohio. Patented originally Jan. 8, 1856: I claim, first, securing the lip, A, to the stem, D, and within the slide, E, E, as described, whereby I am enabled to use a solid lip, and avoid all leakage. Second, I claim the open slide, as described, for avoiding damage, as set forth.

**ORNAMENTAL FELT CLOTH**—O. B. Tomlinson, of Athens, Pa. Patented originally May 15, 1854: I claim the manufacturing of ornamental felt fabrics by placing loose woven or knit felting or shrinking fabrics, of any color or design upon the surface of a sheet of batting composed of any felting or shrinking substance, and shrinking the same by means of steam, or by any other suitable means, so as to form an ornamental felt fabric of the character and quality described, for the purpose set forth.

**HYDRAULIC HEATERS**—L. W. Leeds and R. M. Smith, of Philadelphia, Pa. Patented originally May 15, 1854: We do not claim the combination of tubes, as we are aware they have been heretofore used in stoves and furnaces. We claim the use of the radial ribs, d, d, in combination with the tubes, F, F, irrespective of form of said tubes for the purpose set forth.

**DESIGNS.**

**GATES**—H. E. Wesche, (assignor to Robt. Wood,) of Philadelphia, Pa.

**California Items.**

**COAL**—A coal bed has actually been discovered, and the coal thoroughly tested in San Francisco. The locality of the mine is 30 miles from Stockton, on a spur of the Coast Range mountains. The steamer *Cornelia* tried a quantity of the coal in running down and up San Francisco Bay; it burned with a clear flame, and produced very little ash. There are at present six men engaged in mining the coal. The vein at first showed a thickness of 14 inches; but now, at a depth of 16 feet from the surface, it has widened to 3 feet 9 inches. It is calculated that this coal can be mined and delivered at San Francisco for \$7 per ton. These coals can be run down on an inclined railroad to the city of Stockton, without the use of engines; the weighted cars going down on one side on a double track, can draw up the empty cars to the mine by a rope on the other track. Coal is more useful than gold; therefore this discovery will prove to be of great value to the Pacific States.

**TABLE MOUNTAIN GOLD**—Tunnels have been run into this mountain to reach what is supposed to be the bed of an ancient river, where some rich gold deposits have been found. The old river appears to have run at one time between steep banks. Lava from a distant volcano flowed into the river bed, filling it up, and then rose like a wall above its banks. The course of the river was thereby changed.—The amount of labor and expense requisite to tunnel this old mountain varies. Therimrock is harder the lower down it is worked, and if the tunnel is too high for the bed of the river in the basin under the mountain, the labor is lost.

**LARGE ARTESIAN WELL**—In the city of San Jose there is a splendid large artesian well in one of the streets. It is formed at the top into a basin, six feet in diameter, and resembles a huge bowl. The supply of water is large, it is to be conveyed by pipes through different streets.

**EXPLOSION**—The *Stockton Republican* gives an account of an explosion which recently took place at the flouring mill in that city.—The accident was caused by the collapsing of a flue of the boiler, and the boiler, 40 feet long, was hurled to a distance of 140 feet, against a house, which it demolished.

**New York Docks.**

A city which is now the third shipping port in the world might be able to afford respectable and convenient docks for the use of its shipping. This is not the case with New York city, at whose wharves are to be seen forests of masts belonging to the ships of all nations. The Mayor, in his late Annual Message, directs the attention of our citizens to our miserable dock architecture, and gives our merchants a well merited rebuke for their indifference and neglect in providing proper dockage. He says:—

"We present a singular contrast, in this respect, to every other seaport of any magnitude known to ancient or modern commerce. The quays and docks of London, Liverpool, and indeed, nearly all the English ports, are first class, and even our Canadian neighbors excel us in such works.

"At St. Petersburg, in Russia, there is one granite pier of four miles in extent. At Havre, the docks are the principal structures of importance, having cost immense sums, and are justly the pride of its citizens. Indeed, there is not a city of Europe, possessing navigation, which does not surpass us in the necessary provision for the proper convenience and protection of its shipping." How true all this is: it makes us somewhat ashamed of having boasted of the enterprise of our merchants. Our docks are a disgrace to our city; but we must put the blame on our merchants, for if they had moved right in the matter we would have had good docks before this.

At various times for years we have directed attention to the building of stone piers and docks, and the erection upon them of fire-proof storehouses or sheds for the protection of merchandise while being shipped and unshipped during rainy weather, but no attention seems to have been paid to our suggestions. Peter Cooper has proposed to employ the city poor (those who are able to work) in quarries, getting out stone, for building docks. This is a good idea, and would, no doubt, effect a considerable saving of city funds. But will it ever be carried out? The plan being a good one, there does not appear to be any doubt of its not being carried out.

**The Cold; the Cold.**

The past month and the beginning of this one will be long remembered, in the annals of our country, for the intense cold experienced over such a wide extent of territory. Away down in Texas the river Brazos was frozen over, and the ice so thick that teams were crossing on it. In Virginia the snow was deeper than it had been for 60 years, and the cold was so severe that great numbers of birds, and wild animals perished. At St. Paul, in Minnesota, the thermometer had ranged from 20° to 40° below zero for three weeks. The atmosphere there, however, was dry and still, and persons did not feel the cold more keenly than those in New York, where winds usually prevail during cold. In Cincinnati, the thermometer was as low as 18° below zero. On the borders of Tennessee the thermometer was 5° below zero on the 23rd ult. The cold in the city of New York has been very moderate in comparison with that experienced in some places further south and west of the Alleghenies. On the morning of the 22nd ultimo, the shores of the Bayou Lafourche, in Louisiana, were margined with a sheet of ice, six feet in width. The "oldest inhabitant" being consulted, declared that such a thing had never occurred before. A portion of the ice was two inches thick. So says the *Thibodeaux (La.) Minerva*.

We are indebted to Hon. George Vail, M. C., for useful public documents. We hope Mr. Vail will be prepared, when the proper time comes, to lend his valuable assistance in bringing round the much needed reform in our present defective patent system; and also to resist the Woodworth Patent Re-extension whenever it comes up for tangible action in the House of Representatives.

**The Persia.**

This large new iron steamship arrived on the 9th inst., after a stormy passage of fourteen days. We have not had time to visit her on going to press, but will be able to do so, and present a description of her engineering arrangement in our next number.