



[Reported Officially for the Scientific American.]
LIST OF PATENT CLAIMS
Issued from the United States Patent Office
FOR THE WEEK ENDING APRIL 29, 1856.

SAWING MACHINE—Thomas J. Alexander, of Westerville, O. I claim, firstly, giving to the revolving saw, B, a reciprocating motion across or along the bed, in combination with the reciprocating movement of the bed or table, A, simultaneously in an opposite direction.

Secondly, hanging or supporting the revolving saw, B, and bed or table, A, to give them their specified compound parallel or otherwise equivalently reciprocating movement simultaneously in opposite directions on or to radial arms, c and e, arranged substantially as set forth, and geared together by toothed segments, l or otherwise equivalently connected or driven to produce the necessary contra joint action of said radial arms, essentially as described, and whereby the proper reciprocating actions of the saw and bed relatively to each other are ensured and the movement of the one may be made to actuate the other, as specified.

CHAIN CABLE HOOKS—Enoch Applegate, of Wilmington, Del. I claim the hinged arms, F, and projections, A, or their equivalents, for supporting the anchor, in combination with the lock lever, B, and projections, l, when operating in the manner and for the purposes substantially as set forth.

ELECTRO-MAGNETIC PRINTING TELEGRAPHS—Henry N. Baker, of Union, N. Y. I claim the arrangement of the type wheel, the escapement wheel attached thereto, the arrangement of the crutch or detent acting upon the said escapement wheel relatively to the armature of the type wheel magnet, and the arrangement of the whole relatively to the tongue, p, by which the types are lifted up into contact with the paper in such a manner that when the circuit is closed through the type wheel magnet the tongue, p, will be opposite a space between two letters, and when, during the closing of said circuit, the circuit by which the said tongue and the feed rollers are actuated is closed, the tongue will be inoperative and the feed rollers allowed to act without any impression being given, thereby producing a space between the printed letters or words, substantially as set forth.

PEN AND PENCIL CASE—Edward Baptist, of Hoboken, N. J. I am aware that pen holders and pencil slides have been operated separately by spiral grooved tubes, and I therefore do not claim a single spiral grooved tube. But I claim the two spiral grooved tube, e, g, when arranged substantially as described, so that the pen holder, C, and pencil slide, K, will be shoved alternately in and out of the case and moved simultaneously in opposite directions, as set forth.

CRADLING HARVESTERS—Milton Barlow, of Lexington, Ky. I claim constructing and operating the cutting portion of the machine, substantially in the manner described, so that by the use of the eccentric, l, or a cam or crank as a substitute therefor, operating on the cradle, as set forth, when in combination with the means of delivering the cut grain by the use of a rake, operating substantially in the manner and for the purposes set forth.

EXCAVATING AND MOVING EARTH—Asa W. Cady, of Sullivan, N. Y. I claim the plan embodied in the structure of the bridge and scraper contained in their form and method of use in the machine, and in the arrangements made operating and controlling these, with the gearing and fixtures as actuated by hand or horse power, and in adapting them to and combining them with a wheeled vehicle or wagon, so the operation of excavating earth may be performed in the manner specified.

CIGAR MACHINES—Wm. Dawson, of Huntington, Conn. I claim the combination of the forming rollers, b, b, the flexible apron, L, and the shaping dies, d, d, substantially as described and for the purposes set forth.

DOOR FASTENERS—Elisha P. Moulton, of Baltimore, Md. I claim constructing turn buttons or fasteners in the manner described. The stem and head of the button being in one piece, and having a collar, at its end that prevents the button from being withdrawn from its frame by the strain wrought on the head of the button by the door which it secures; the stem of the button having a square part that is pressed against by a spring, in the manner and for the purpose described.

CORN PLANTERS—Silas G. Randall, of Rockford, Ill. I claim the combining with the seed tube, E, a cut-off tube valve, F, for closing or opening said tube, as the case may be, said valve moving edgewise against the soil when the passage is opened to allow the grains to pass into the ground, and operated from a lever, B, substantially in the manner and for the purpose set forth.

HARVESTER CUTTERS—Benjamin T. Roney, of Philadelphia, Pa. I am aware that vibrating knives or cutters for harvesters are well known and in common use, and that such cutters have been arranged so as to produce what is known as the shear cut. I therefore do not desire to claim the use of vibrating cutters exclusively, but as an improvement upon the ordinary manner of arranging the same.

I claim the slotted bar, C, and cutter bar, D, as connected together by the cross pieces, e, e, in combination with the cutter levers, E, their knives B, and projecting pins, l, the whole being arranged in conjunction with the fulcrum, B, substantially in the manner and for the purpose set forth.

ROTARY STEAM ENGINES—John B. Root, of Brooklyn, N. Y. I claim the contrivance of the steam ports, passages and stop bars, arranged in connection with the piston rods as described, so as to let the steam in upon the rubber at different and opposite sides of the cylinder at as many places as the number of rollers used shall require, thus acting upon the rollers from different and opposite points, thereby relieving the center shaft from side pressure and friction and also increasing the power of the engine with the increase of the number of the steam ports and piston rollers.

I also claim the arrangement and device of the movable plates, d, d, and the stationary plates, f, and collar with the friction rollers, y, and metallic bars or arms, g, for the purpose of adjusting the piston rollers in the manner and for the purposes described.

WRENCH—Bradford Rowe, of Albany, N. Y. I claim the solid movable jaw sliding between the parallel side pieces to which the fixed end jaw is attached, substantially as set forth.

I claim the bevel wheel and screw gearing to move the jaw, in combination with the solid movable jaw, substantially as set forth.

SHINGLE MACHINE—John B. Ewins, of Greencastle, Ind. I do not claim the reciprocating knife and panel, for they have been previously used for the same purpose. But I claim, first, the combination of the knife frame, C, and panel frame, D, when connected and arranged and operating conjointly, as shown and described.

Second, I claim operating the knife and panel frames, C, D, by means of the lever, J, when connected to the two levers, K K', as shown, so that two movable fulcrums are obtained, the pitman being attached to the lever between the fulcrums, for the purpose specified.

HAND SEED PLANTERS—Edward Hopkins, of Cincinnati, Ohio. I claim the arrangement of the rod, and spring, 7, combined with the catch block, ll, and sliding plate, 12, for operating the semi-circular cylinder, 3, and lid, 9, for purposes substantially as set forth.

SCAFFOLDING—John M. Dearborn, of Boston, Mass. I claim the improvement in the construction of movable scaffolds, which consists, first, in constructing the upright standards of two planks or boards leaving a space between them in which spaces the ledgers can be moved up or down and secured in any desired position, as described.

I also claim constructing the upright standards with beams on the top which fit into the bottom space strengthened by an iron sleeve between the planks of the upright standards of the next upper section, whereby I am enabled to extend the staging vertically, as described.

JOINT BODIED BUGGIES—Edwin J. Green and Moses H. Wheeler, of Cedarville, N. Y. We claim supporting the front or seat section of a joint body carriage on a spring reach by means of a bolt or equivalent support, whereby we avoid the use of a spring as heretofore used under the seat, but still have the advantages of said spring by using the spring reach as such, substantially as set forth.

AUTOMATIC RAKE FOR HARVESTERS—Salem T. Lamb, of New Washington, N. Y. I claim giving the rake its circular motion by means of the traversing and rocking cam, J, in connection with the revolving cam, E, which gives the longitudinal motion through the intervention of devices substantially as described.

DRY GAS METERS—Wm. Lyon and Chas. W. Dickinson, of Newark, N. J. We claim, first, so constructing the metallic bellows described for the measurement of gas that the spring or bend of the metal may form chambers of varying dimensions of definite capacities, as set forth, for receiving and measuring the gas, the whole arranged as specified or in any equivalent manner.

Second, we claim giving motion to the registering wheel, A, or other registering wheel, C, operated by the wheel, P, and the levers and connections communicating with the bellows, substantially as described.

CORN SHELLERS—Ebenezer Mathers, of Morgantown, Va. I claim the construction of the shafts, B, with channels, k, k, said channels being furnished with elastic tongues, D, D, for the purpose specified.

PRINTING WOOLEN AND OTHER FABRICS—John McInnes, of Braintree, Mass. I claim the general construction and arrangement of the machine, that is to say, the vertical cylinder, B, with its series of blocks, A, in combination with a corresponding series of sieves, or their equivalents, arranged and operating in the manner substantially as set forth.

BREACH LOADING FIRE ARMS—S. F. Stanton, of Manchester, N. H. I claim, first, raising the chambers into line with the barrel, by the action of revolving them, in the manner substantially as set forth.

Second, the peculiar form of the breach piece with its elevated and depressed portions, D, D', and inclined planes, a, a', whereby as one charge chamber is raised into line with the barrel, the one last discharged is forced down by the inclined plane, a', into its vertical position, as set forth.

Third, the method described, of securing the chambers in position without interrupting their motions by means of the lever, operating substantially as set forth.

Fourth, I claim the ring, t, constructed and operating as set forth, for the purpose of arresting the motion of the revolving chambers, and of forming a joint between the barrel and the chamber, as described.

Fifth, I claim the combination of devices or their equivalents, whereby the ring, l, is driven forward to release the charge chambers, before they are revolved, as set forth.

Sixth I claim the safety stop, operating in the manner substantially as described, for the purpose of preventing the fall of the hammer, whenever the ring, l, is not drawn over the joint between the barrel and the charge chamber.

REAPING MACHINES—Pliny Thayer, of Lansingburg, N. Y. I claim, in combination with the raker's stand and the cutting bar, or receiving the cut grain, the rearward inclination and extension of said platform from the line, a, so that the raker may move his rake with the natural sweep of his arms or body, in raking the gravel from the platform, as set forth, and deliver it clear of the gearing.

FRICTION MATCHES—Alex. Underwood, of German Flats, N. Y. First, I claim the cutting and rocking device, T T T, formed of the several parts or elements, b c c d d e e f f g g h, as described and fully shown.

Second, I claim the manner or mode of feeding the blocks or billets, of wood, to the cutters by the alternate lateral shifting of the hammer, whenever the ring, l, is not drawn over the joint between the barrel and the charge chamber, as described and shown.

Third, I also claim the toothed or geared reciprocating crank device, A, with the combination parts, e, c, and f, k, m, n, and the dipping pan, g, c, substantially as set forth and represented.

Fourth, I claim the construction of the endless chain rack devices formed with series of pins or teeth, as at E, together, in combination with the intermittent rotary rack carrier, D, and crank ratchet device, G, H, used and operated substantially as described.

Fifth, I claim the boxing and capping device, K K L M N O P B W, 2, 2', 4, 9, 9, as described and shown.

BOX OPENERS—C. P. S. Wardwell, of Lake Village, N. H. I claim the employment of rotary dogs, C, C, or their equivalents, substantially in the manner and for the purpose set forth.

I also claim the combined arrangement of the spring, G, and flattened shanks, F, F, of the dogs, when, by the wedge lips of the dogs are kept in the same line, or parallel, with each other for convenience of insertion without hindering the desired rotary motion of the dogs.

FIRE ARMS—Frederick Newbury, of Albany, N. Y. I do not claim a movable block for load chamber, nor tube magazines.

But I claim, substantially as set forth, first, the method of operating the block, D, by the hammer, in combination with the forked lever, G, the spring, E, and recoil stop pin, p, reference being had to the peculiar form of the lever, G.

Second, the formation of the front trigger guard into a rear spring, and its attachment to the lower end of the trigger.

I disclaim as not new, the other parts of the apparatus described.

PARING APPLES—E. L. Pratt, of Philadelphia, Pa. I claim attaching the lower end of the knife shaft, I, to the stud projecting from the large segment, P, by a flat steel or other spring, S, for enabling the said knife shaft to have a slight vibration, through the twisting or torsion of said spring, for the purpose of adapting the edge of the knife to the inequalities of the surface of the apple during the process of paring, and enabling the elasticity of the spring, S, produced by the twisting or torsion of the same to be exerted toward bringing the edge of the knife when thus moved, back to its proper relation to the surface of the apples, as set forth.

SELF-RAKERS FOR HARVESTERS—T. T. Whitaker, of St. Charles, Ill. I claim, first, the rock shaft, E, in combination with the rack, F, and connecting shaft, J, operating in the manner and for the purposes substantially as set forth.

Second, I claim, in combination with the rack, F, the cradle, L, when operating in the manner and for the purposes set forth.

Third, I claim the method of adjusting the rake, F, so as to enable it to rake from platforms of different widths of cut, substantially as described.

CORN PLANTERS—Samuel Witt and G. W. Albaugh, of Green Castle, Pa. We claim the use of the slide, E, in corn planters, operated as described, when provided with expanding grain receptacles, g, g, constructed as described, and when the divisions, o, o, of the hopper are provided with strikers, P, all operating substantially as set forth, for the purpose of preventing the choking from wedging of seed, and insuring its delivery to the drill tube.

PROPELLING BOATS—S. W. Wood, of Washington, D. C. I claim the arrangement and combination of the horse power and paddle wheels described, whereby the raising and lowering of the paddle wheels, to suit the various depths at which the boat sinks, and produces a variable inclination of the horse power, so as to enable the horse to exert a power proportioned to the weight of the load.

CLEANING KNIVES—A. C. Ketchum, (assignor to E. B. Olcott) of New York City. I claim subjecting the knife blades while secured upon the bed piece to the requisite friction or rubbing, by means of the strips, e, attached to the under side of the board, E, substantially as shown and described.

except by the initiated. A series of concentric waving circles appear, for example, like a series of interesting curves, radiating from a center.

But with watches as with men, the externals are of little importance compared with the internals. We went, therefore, to another part of the building to see the operation of manufacturing the digestive apparatus, by which the daily food of muscular power communicated through the watch-key, is elaborated into available form, by which the will, in shape of a main spring, under the guidance of judgment in shape of an escapement, may move the hands to useful purpose. Here we saw the singularly ribbed pinions cut into proper lengths, turned to proper diameters in their various parts, the leaves re-cut and polished, and the whole pinion pass through successive polishings until the microscope could detect no lack of luster. In another part of the room brass wheels were stamped out without teeth, the teeth cut by an engine, the wheel with its teeth carefully polished, and then, by a neat and effective machine the wheel and pinion united forever.

The hands—made of silver or gold—are formed by a series of dies and punches which leaves nothing to be done by other hands but the mere polishing. The little screws used in fastening the parts together were made by beautiful and delicate machines, the perfection of human ingenuity and skill.

After a glance at the springs, and the mode in which they are braced to prevent breaking while the watch is in use, we went through the engraving room, where the brass plates of the watch are ornamented by the gravers' tool. Thence we passed to the jewelers' room, where garnets, chrysolites, aquamarines, and sapphires are the materials, and diamonds the tools. Stepping a little further we were shown the watches, without cases, and the brass plates not yet gilt, but real watches, going and keeping time. It gave us a strange feeling of awe, as though we had witnessed the building of a body and the breathing in of life. Further on we saw watches with all the plates splendidly gilt, but not yet clothed with a case.

Finally we were shown the watch dressed in silver and gold, and ready to start on its mission in the world.

And no unimportant mission is that of the watch; teacher of punctuality, monitor to diligence, prophet of eternity, consoler of the weary and sleepless, companion of the lonely traveler, guide to science, substitute for the sun and stars of heaven when their light is obscured. Who can picture to himself the loss to the world if modern time-keepers were struck out of existence? Only one benefit would arise to counterbalance the many losses. The invention of clocks and watches by relieving the mass of men from the necessity of observing the sun and stars has withdrawn too much of their attention from the sublime and instructive phenomena of the heavens.

Our visit to this establishment was too pleasant to be left unrecorded, and we have thus endeavored to give to our readers some small part of the pleasure which the polite attention of the foreman, Mr. Stratton, gave us.

—[Waltham Sentinel.]

An American Carpenter the Founder of an Aristocracy.

In the first apartment which we entered the principal brass plates in the watch were prepared for receiving the works. The accuracy with which these plates were made was proved to us by taking a set of them at random and putting them together; they fitted with perfect accuracy, as though the members of that particular set had been made specially for each other; yet each piece would fit equally well in any other set. In other rooms we saw the cases going through their various processes. The metal was rolled into plates, cut into shapes, stamped into concave form, rough polished, pickled in acid, the parts soldered together, and newly polished with finer material, the whole put together, and then subjected to successive polishings until an exquisite luster was obtained. We also saw the marvellous little machine by which the back of the case is adorned with its singular engraving, wherein the lines that are seen were not engraved, and the lines that were engraved are not seen

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