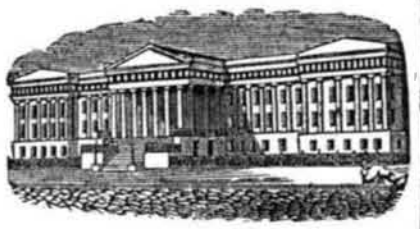

[Reported Officially for the Scientific American.]

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING DECEMBER 20, 1853.

GRAIN ANG GRASS HARVESTERS—By J. E. Brown & S. L. Bartlett, of Woonsocket, R. I.: We claim the double-bladed or two edged knife, or its equivalent, so constructed as to cut in each direction, as it is vibrating, as described.

Second, the knife in combination with the curves and teeth.

Third, we claim the mode of operating the double-bladed knives or cutters, by means of the rack and pinions, as set forth.

Fourth, we claim the arrangement of the devices which communicates the motion from the internal part of the driving wheel to the rack, as set forth.

Fifth, the gearing, arranged and combined so as to work within the main wheel, and operate the crank upon the axle of the main wheel, as described.

OPERATING BRAKES BY SIGNAL CARDS—By William G. Creamer, of New Haven Co., Conn.: I do not claim the use of springs or weights to operate the brakes of a car, nor do I claim the use of a cord, or its equivalent, to act upon such springs or weights, or directly upon the brakes; neither do I claim the use of a cord for the purpose of transmitting signals; but I claim the described method of attaching the lines that operate the springs or weights to the signal line, so that the engineer may be able to close all the brakes by said line, while the same line may be used for transmitting signals from the rear of the train to the engineer without operating the brakes.

MANURE AND OTHER FORKS—By B. H. Franklin, of Worcester, Mass.: I claim making the tines of forks three sided, as described, whereby I diminish the weight, retain the strength, improve the holding properties of the fork, and at the same time prevent its choking, and cheapen the article.

GRAIN AND GRASS HARVESTERS—By Uriah H. Goble, of Springfield, Ohio: I claim, first making the ground or driving wheel with a conical tread to counteract the tendency of the machine to run into the uncut grain to prevent the side draught, and to better balance the machine by throwing the heft to the outside or from the uncut grain, as described.

I also claim so hinging the platform immediately in rear of the cutters, and giving it a rising and falling motion, by means of the cam and lever, or their equivalents, when said motions are made to conform to the motions of the reel or rake, to retain and then facilitate the discharge of the cut grain from the platform in bunches, as described.

SHOES TO WINNOWERS—By Joseph & James Montgomery, of Lancaster, Pa.: We claim the construction and arrangement of the ordinary shoe, so as to receive an extra shoe and door, as set forth.

MANURE CRUSHERS AND SOWERS—By T. F. Nelson, of Clark Co., Va.: I claim the combination of the fluted or toothed cylinders, with the toothed shaft operating as described, for the purpose of grinding and distributing guano or other pulverized manures, as set forth, the whole being in combination with any ordinary seed planter.

GRAIN AND GRASS HARVESTERS—By Wm. & Thomas Schnebly, of New York City: We claim the method of arranging the gear in combination with the movable plate, to which the crank pin is fastened, said movable plate being located on the flange of the second pinion, by which method we can increase or diminish the lateral distance of the motion of the cutters, as described.

We claim the method of constructing the hollow guard fingers, each one being a single piece, only substantially as described.

We claim the self-acting rake with jointed fingers, in combination with the guide rods upon which it is made to slide back and forth, as described.

POWER RAKES—By H. N. Tripp, of Alfred, Me.: I claim combining with the rake head and shafts a set of levers and back draught bars, as set forth, so that by the conjoint action of the forward draught of the horse and the back draught of the attendant, the rake may be either turned up or off the ground, and supported on its wheels, or turned down so as to bring its teeth in contact with the ground, as specified.

HULLING AND SCOURING COFFEE—By R. P. Walker, of New York City: I claim the combination of the springing rubber flaps, or scourers and polishers, with the angularly set hullers or beaters, the whole being constructed as set forth.

[See notice of this invention on page 332, Vol. 8, Sci. Am.]

COTTON PRESSES—By J. B. Armstrong, of Barnwell, S. C.: I claim the method described of holding the bale under compression, and preventing it from springing or yielding during the stitching and roping of the same whilst the platen is being run down or back, by means of a false top or platen, hooked or otherwise hitched to the bed, and arranged to work in connection with the main platen, as specified, whereby time is economized in the operation of the press, as set forth.

[See notice of this invention on page 76, Vol. 8.]

ATTACHING HOOKS AND EYES TO CARDS—By Charles Atwood, of Birmingham (Derby), Conn.: I do not claim the crimping and perforating of cards with mortice-like holes, for the purpose of attaching hooks and eyes to, as that was secured to me in a patent dated September 25, 1849.

But I claim the crimped and perforated cards, combined with thread or thin splints, to fasten hooks and eyes to them, as described.

I claim also the attaching of hooks by the aid of a block, clamp and cords, or by means substantially as described.

[This invention is noticed on page 236, Vol. 8, Sci. Am. as Fowler's improvement; Mr. Atwood proved to be the original inventor.]

CANDLE MOULD MACHINES—By D. E. & M. Battershall, of Troy, N. Y.: We claim, first, the arangement for cutting, centering, and holding the wicks at one and the same operation, by means of the cutter, guide plate, jaws, springs, tumblers, crank arms, connecting rods, horizontal sliding bar, pawl, eccentric plate, and vertical sliding bar, the respective parts being arranged and operating as described.

Secondly, we claim the wick tightener, constructed and operating as described.

STAMPING PATTERNS ON ROLLERS—By James Baxendale, of Providence, R. I.: I claim stamping rollers for printing cotton or other textile fabrics, by means of a punch which is attached to a weighted arm or lever, raised by a cam and allowed to fall on an elastic gauge at regular intervals of time, while the roller is moved in the direction in which the pattern is to be repeated, as set forth.

[We should think this a good improvement.]

HOT-AIR FURNACES—By James Bolton, M. D., of Richmond, Va.: I claim the division into compartments of the air chamber surrounding a stove furnace, pipe or other contrivance for warming the air which it contains, so that the warm air may be drawn off by flues from each compartment without interfering with the supply of warm air from the other compartments.

METALLIC TRUNK FRAMES—By Lazare Cantel, of New York City: I do not confine myself to the use of this frame with leather trunks, as it may be used with other characters of trunks, and with carpet bags, hat cases, or similar articles. I am aware that the strip or plate on three sides has been used, but I am not aware of any joint or frame having been made of a bent plate or strip with ribs and grooves, as specified.

I do not claim, in general, the metallic frames, made with tongues and grooves, and hinged together at one side for the joints of trunks; but I claim forming the joints of trunks, by arming the edge of the material of which the body is composed with sheet metal covering, crimped in the form of the tongues, as specified, whereby I obtain not only a protection to the surface from wear, but also the effect of a stiffening frame, as well as strength in the tongues and that at a small expense.

SHUTTLES—By David Carroll, of Baltimore, Md.: A closed shuttle has been used for sewing cloth where a cap instead of a bobbin is employed: this I do not claim.

I claim, in combination with the bobbin of an ordinary shuttle, the hinged guard projecting from and over the point towards the heel of the bobbin, for the purpose of preventing the thread or yarn, when paying off too fast, from looping or tying, as described.

CAR BRAKES—By John D'homergue, of New York City: I claim the arrangement of the cams upon the blocks, and within the sheaves, so as to press simultaneously against the inner periphery of said sheaves by the action of the tri-branched ring, as set forth.

SODA WATER FOUNTAINS—By Alex. Frankenberg, of Columbus, O.: I claim the arrangement and combination of the stop-cock apparatus, with reservoirs, as set forth.

JOINTING TABLE TOPS—By W. J. Hatfield, of Dayton, O.: I claim the method described, of jointing and hinging tables, by means of rotary cutters arranged and operating as specified, whereby time and labor are economised and greater accuracy is insured, as set forth.

VULCANIZING CAOUTCHOUC COMPOUNDS—By L. O. P. Meyer, of Newtown, Conn.: I claim the producing of smooth and glossy surfaces upon the hard compounds of caoutchouc and other vulcanizable gums by means of the use of oil or other equivalent substances applied to the surfaces of the prepared gum, and between the gum and the plates of metal or the moulds, as described.

HAND LOOMS—By J. A. Mitchell, of Ringgold, Ga.:—Having described the operation of my piano hand loom, I claim the combination of the keys or pegs, through the rods, levers, links, and springs, or their equivalents, with the treddles, as described, whereby I am enabled to operate the harness of hand looms, by a movement of the fingers instead of the feet.

SAWING AND PLANING CLAPBOARDS.—By Ephraim Parker, of Rock Island, Illinois: I claim planing or dressing the inside of two clap boards at the same time, by means of the combination of the saw, parting guide, one cutter head, and the adjustable metallic beds: the above parts being arranged and operating as described.

[See engraving of this invention on page 356, Vol. 8.]

CARRIAGES WITH SHIFTING SEATS—By Godfrey Simon, of Reading, Pa. Patented in England March 4, 1853: I claim the manner described of constructing, arranging and applying or using the removable front seat, foot board and dash-board, and of adapting the body of the carriage thereto, as described.

SCREW FOR PLANKING SHIPS—By Solon Staples, of Topsham, Me.: I do not claim the use of screws generally in planking vessels, but I claim the combination of the shank, its arm, and screw, H, with the brace, screw, I, and chain, constructed and combined in the manner described.

GUIDES FOR SEWING ON BINDING—By H. L. Sweet, of Foxborough, Mass.: I claim the doubling guide, as not only made with a flat mouth or one capable of receiving the ribbon, tape, or binding in a flattened state, but with a bent channel or sides, such as shall gradually bend or double it, and discharge it at the other end in a double state, ready to be applied to any article conveniently placed to receive it and leave it sewed thereon, as stated.

HORSE-SHOE—By Wm. H. Towers, of Philadelphia, Pa.: I do not claim the employment of flanges or lips on the upper surface of the shoe, but I claim constructing the shoe with a detached flange, secured as described, so that the side and front flanges shall firmly fasten the shoe to the hoof, as set forth.

POLYGONAL SURFACES IN TIMBER—By Elias Unger, of Dayton, O.: I do not claim the movable table or the revolving face plate, nor the securing of timber between standards, as such are well known.

But I claim securing the timber to be dressed between two clamps on traversing carriages, by means of eccentric pins, as described, so that the faces or surfaces dressed by the cutter may have any desired angle with the axis of the piece, for the purposes set forth.

CLEANSING HAIR AND FEATHERS FROM INSECTS, &C.—By Wm. Wisdom, of Cleveland, O.: I disclaim to be the originator of sal soda as a purifying agent, but I claim purifying hair and feathers by destroying all noxious insects or infectious matter contained therein, by subjecting the same to a vapor bath of chlorine gas after the material has been cleansed by a bath of sal-soda, as specified.

GOLD PENS—By E. H. Bard & H. H. Wilson, of Philadelphia, Pa.: We do not claim the employment of flat nibs when composed of two pieces, as such pens have been heretofore made.

We claim the construction of metallic pens having the form of the semi-cylindrical barrel combined with the angular diverging planes by compressing the metal between corresponding shaped dies, as described.

SEPARATING ALCOHOL FROM WATER AND OTHER HEAVIER FLUIDS—By B. F. Greenough, of Cincinnati, Ohio: I claim the separating of alcohol and its compounds of parts of different specific gravities by means of the pressure of a column of such liquids, thereby causing what I denominate the Hydrostatic Displacement, as set forth.

SHINGLE MACHINE—By B. F. Stevens & Walter Kidder, of Lowell, Mass.: We claim, first, the combination of the movable side bars with the shaving knives and cams, arranged as set forth.

Second, the combination of the sliding arms carrying the riving knife with the driver, as set forth.

FOLDING BUREAU OR WARDROBE BEDSTEADS—By A. E. Botter, of New York City: I do not claim a bedstead arranged so that it can be closed or folded, and represent or imitate, when closed or folded, a bureau or other piece of furniture, irrespective of the peculiar arrangement of the parts.

But I claim the peculiar construction of the bedstead, as shown, viz., having the two parts connected by hinges, connected to a chest by hinges, by which construction the bedstead may be folded or shut up during the day, occupying but little room, and resembling a piece of room furniture, and unfolded at night when desired for use; the chest being provided either with drawers or a crib for children, as set forth.

[We noticed this invention on page 28 of this Volume Sci. Am.]

SELF-ACTING MACHINES FOR WEIGHING GRAIN—By I. D. Garlick, of Lyons, N. Y.: I claim the auxiliary gate, when combined with the loaded bent lever and cam catch, or their equivalents, which act upon the steelyard so as to lift shortly before the weight of grain in the weighing box becomes sufficient to raise it, as set forth.

I also claim suspending the weighing box in the frame by means of a rack pinion and loaded lever, whereby it is made to slide up and down within said frame at each weighing, and to produce the movements as described.

I also claim the arrangement and combination of the bent cam lever, the pin on the frame, and the curved elastic rod connecting said lever with the lid, for the purpose of opening the lid at each descent of the weighing box within the frame, and again closing it by the ascent thereof, as set forth.

I also claim the suspended hopper, in combination with the vibrating lever, arranged as set forth.

I also claim the combination of the notches and catch wire, with the elastic shoe and pin of the lever, arranged in such a manner that said lever is successively set free from the notch Q, catch, and notch R, respectively, by the ascent, descent, and second ascent of the steelyard, as set forth.

I also claim the adjustable cam catch, as described, in combination with the shouldered rod, for the purpose set forth.

I also claim the slotted rod, in combination with the vibratory lever, when arranged in such a manner that the ascent of the lever will raise the gate, and hook the catch over the pin of the steelyard, but will not disturb the gate in its descent, as described.

I also claim the arrangement and combination of the adjustable notched and perforated disc, the coupling pins, index, arm, and stop, as set forth.

STEAM BOILERS—By C. F. Sibbald, of Philadelphia, Pa.: I claim the fire box, deflecting plates, fire surface, and water surface, as constructed, and the whole arranged as set forth.

Also, the additional steam chamber placed below the water surface and behind the fire box, and connected to the main steam chamber by a pipe passing through the smoke stack, as set forth.

SEWING MACHINES—By S. C. Blodgett, of Georgetown, Mass. (assignor to Chas. Morey, of Boston, Mass., and Morey, assignor to Nehemiah Hunt, of Boston, Mass.): I do not limit my improvement to the employment of all or either of such mechanical contrivances for moving either of the needles or the cloth, as specified, as others well known as mechanical equivalents may be substituted for them. Neither do I confine my improvement to the precise form or forms of arrangement or arrangements of all or any of its parts, as circumstances may vary the same without changing the nature of the invention.

I claim the formation of sewing in cloth, or other material, by the interlooping of two threads by the conjoint action of two needles, in such manner that each needle shall be made to carry a loop of thread through a loop formed by the other needle, and through the cloth whereby one thread serves as a binding thread to the other, as described.

TIME REGISTERS FOR SHEWING THE DAY OF THE WEEK AND MONTH—By Wm. H. Akins, (assignor to W. T. Huntington), of Ithaca, N. Y.: I claim, first, the particular arrangement of the months, with their appropriate number, of days, as described, and for the purpose described, commencing Feb. 1st, 2nd, and 3rd, and so on for 28 days only, and then all of the other months in their regular order with their appropriate number of days for the whole year (with the February first mentioned and having the 28 days). Then again, February having 28 days and also 8 or 9 or 10 days of another March, at the last end of the paper, and within which 8 or 10 days the machine must be wound up in every bisextile, or leap year and requiring to be wound up in the first, second, and third years, after leap year during February having the 29 days and before the 29th day, thereof.

Second, the arrangement and combined action of the rollers, showing the day of the week and drawing up the paper exhibiting the month and day of the month in their regular order, as set forth, the paper after it is drawn between the rollers, being disposed of by winding it upon the roller, by means of a weight, or spring, as described.

PICK AXES—By J. C. Conklin, of Peekskill, N. Y. (assignor to D. Tompkins, of North Harverstraw, N.Y., and D. F. Tompkins, of New York City: I do not claim extending the main bar through the center of the eye of the pick axe, neither do I claim the braces which secure the handle; but I claim the combination of the said bar with the braces and the loops, as set forth.

FOLDING SEIDLITZ POWDERS—By Wm. A. Martin, of Brooklyn, N. Y. (assignor to W. Watson & Peter Van Zandt, of New York City): I claim the bars moved by the means shown, or any analogous devices for folding the paper, as specified.

Second, I claim the frame with its cutters and block, in combination with the beds on which the paper lies, to divide the papers containing the powder and fold the ends against the ends of the blocks, as described.

DESIGNS.

COOKING STOVE—By Winslow Ames, of Nashua, N. H. (assignor to Hartshorn, Ames & Co., of Boston, Mass.

PARLOR STOVE—By James Wager, Volney Richmond, and Harvey Smith, of Troy, N. Y.

CYDINDER COAL STOVE—By Jas. Wager, Volney, Richmond, and Harvey Smith, of Troy, N. Y.

[NOTE—This is the longest list of claims which has been issued for some months: eight of the application were made through the Scientific American Patent Agency.]

Reform in the Patent Laws.

MESSRS. EDITORS—The subject of the amendment of the Patent Laws is, I see by your paper, about to be brought forward once more.

The present laws, with a few judicious amendments, would be doubtless the best and most complete in the world, and I am glad to learn that you intend pointing out the remedies for the errors now existing.

While the subject is under consideration I would call your attention to the injustice which is done to European inventors (who may be desirous of introducing their inventions into this country), by the very high tax imposed upon them as patent fees—an Englishman having to pay $500, and other Europeans $300. This scarcely accords with the liberality of the American character. The argument that it would cost an American as much to secure a patent in Europe, is not a sound one—for the European Governments charge all applicants alike. If the fees for all foreigners were reduced to $100, very many Patents would be applied for, and many more useful inventions would be introduced here; the business of the Patent Office would be somewhat increased, but its income would also be very greatly increased.

GEO. M. KNEVITT.

[The suggestions of our correspondent are well worthy of attention. We have advocated the same measure in former numbers of the "Scientific American," and would be pleased if the Commissioner of Patents would recommend the subject to Congress. Our American inventors have no objections, and no prejudices to offer against such measures, for they do not look upon worthy foreign inventors with any jealousy: our inventors have minds which soar above such petty feelings. They also like to see every good foreign invention get fair play, and for the love which they have for their country, they like to see new and useful inventions introduced, irrespective of the land from whence they come.

(For the Scientific American.)

Tunnage of Ships—Lake Vessels.

With great interest I have read the letter of J. W. Griffiths to the Secretary of the Treasury, on the subject of the "Tunnage of Ships;" and in my opinion the adoption of the mode of admeasurement suggested in that letter is eminently calculated to promote every interest connected with Commerce, and would most fully guarantee an open sea and flowing sail to the restive genius of nautical enterprise in every field of adventure. Through the kindness of Mr. Griffiths, being favored with a perusal of Capt. Moorsom's book referred to, it is refreshing to observe the superior adaptation and usefulness of the rule which our countryman proposes, in science, simplicity, and brevity. To be sure, it will demand a more extensive knowledge of mathematics than some of our political surveyors at present possess to compute tunnage from the model or draft, and for this reason the law would tend to elevate the functionaries of Government, and advance the knowledge of shipbuilders themselves. But the rule proposed would be simple, and highly useful in determining the weight of cargoes, and ought to be familiar, to every enterprising builder already.

Having myself built some of the sharpest and fleetest coasting vessels for the Lake Trade to be found in any waters on the globe, I have had to stem a torrent of mulish opposition, far more stubborn in the encounter than all the difficulties of modelling and accomplishing the end in view,—based on the doctrine that tunnage *is* tunnage, or, that the Government measure shows the vessel's capability, and consequently her value. But the fact is, that when you cut down the buoyancy, or displacement of your model to 48, 50, or 60 per cent. to obtain speed, your vessel being estimated by dimensions instead of displacement, by factors instead of contents (cubic), she is expected to sail, of course, and carry too, because she *runs* so much! Let us only be free to choose what shape, form, or proportion of bulk we shall prefer to give to the shell of our cargo, with no check but utility, in the light which an American understands the term,—and we ask no more to secure the maximum of man's power on the grand highway of nations. In Griffith's "Manual" you will find some account of the "Manitowoc Clipper," alias "Mary Stockton,' modeled and built by the writer at this place. This vessel has made but two trips from Chicago to Buffalo with wheat. The first trip she made the passage down in less than four days sailing time, and the last she occupied but 84 hours, (distance 1025 miles fair courses.) On the first trip she ran through Lake Huron (245 miles, the shortest running course) in 15 hours, averaging 16 ⅓ miles per hour—part of the time ran 18 miles. This vessel registers 349 tuns, and carries 12,700 bushels of wheat on an even draught of nine feet water. She is my first effort to combine speed, light draught, and utility in this trade. I can see a little further but would prefer to have the vessel's register show her true capacity. Science cannot gain by deceit. Truth is right and right is victory.

Yours, W. W. BATES.

Manitowoc, Wis., Dec. 15, 1853.

Interesting to Ship Masters.

In the case of Potter vs. Pettis, the Supreme Court of Rhode Island has recently decided that vessels have a right to use a warp in getting in and out of the harbor of a navigable river, and to extend the warp across the entire channel; but on the approach of another vessel it is the duty of the vessel using the warp to take notice of such approach, and so to lower the warp as to give a free passage through the ordinary travelled part of the channel, and to indicate to the approaching vessel the point intended for her passage. The approaching party is not bound to pass at the point indicated, but may pass at a different point if he honestly thinks it can be done without interference, but in such case he will be liable for the damage which ensues, unless he can prove that he disregarded the notice of the other vessel in the bona fide belief that he could so pass without damage to it, and the burthen of proving this will be upon him.