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LIST OF PATENT CLAIMS

Issued from the United States Patent Office
FOR THE WEEK ENDING JUNE 14, 1853

CUTTING TENONS—By C. B. Fitch, of Galena, Ill.: I claim the method described of cutting tenons by means of the scoring and V-shaped cutter that cuts the square shoulder and point, and at the same time scores the side of the tenon, when this is combined with the lancet shaped or other finishing cutter, for removing the material left by the scorers, as specified.

HARVESTERS OF GRAIN AND GRASS—By Wm. G. Huyett, of Williamsburg, Pa.: I claim the peculiar manner of arranging the two sets or series of knives B and C, the knives, B, being of triangular form or saw shaped, and having a reciprocating motion, and the knives, C, working directly over the knives, B, said knives, C, being attached by pivots to the outer ends of the teeth, and having an opposite reciprocating motion communicated to them, at their inner ends, by the lever and cross bar, by which arrangement a drawing cut is obtained and the knives effectually prevented from clogging or choking, by the grass or straw.

STOVES—By S. S. Jewett & F. H. Root, of Buffalo, N. Y. Ante dated Dec 14, 1852: We claim the combination, in a stove or grate, of the fire-place or furnace with a sliding door or doors, to close the front of the fire place, and a recess in one or both of the jambs of the fire-place for the door or doors to slide into, and be concealed from view on the outside and be insulated from the fire and smoke within, this recess being a separate compartment open only where the door enters, and only of sufficient capacity to receive the same, as set forth.

MOP HEADS—By Harvey Murch, of Lebanon, N. H.: I claim an improved mop head, composed of the fixed cross head, which has grooves in its lower side and end, in combination with the sliding binder that terminates in a notched shank, and passes through the loop on the handle, which serves as a detent in consequence of the action of the spring on the under side of the said shank, as set forth.

METAL TUBES—By Geo. F. Muntz, Jr., of Birmingham, Eng. Patented in England May 8, 1852: I claim the mode or process of manufacturing a metallic tube of Muntz's metal, or other like metal or composition of metals, viz., by first casting the metal in a short tube; next heating it as described, and rolling it flat, and elongating it at the same time; and finally, opening it out and removing the surplus portions of flue, and reducing it to its final form in transverse section, as specified.

SELF-WAITING DINING TABLES—By Lea Persey, of Patterson, Pa.: I claim a self waiting table constructed and arranged as described, viz., having an endless band situated beneath the table and kept in constant motion during meals, by any power applied through the crank or other means, to which a band is firmly attached at convenient distances apart, guiding carriers, &c., which pass up through, and are supported by small railway trucks, &c., and move in guiding apertures in the top of the table, and up on the tops of which are placed waiters, whereon dishes are put and constantly conveyed around, before the guests on both sides of the table, in combination with the said endless band conveyers.

I also claim an additional shelf or second table, over the central portion of the table, above the waiters, for the purpose of holding castors, &c., which do not require to be frequently moved or replaced, as set forth.

MORTISING MACHINES—By Fergus Purden, of Baltimore, Md.: I claim a divided bed, so constructed that it can be adjusted to suit the width of the mortise to be cut, so as to prevent the side of the mortise from being splintered by the cutter, or chips when they are forced through and driven out on the underside, as described.

BRICK MACHINES—By A. H. Sampson, of New Orleans, La.: I claim the box or reservoir of plat forms with the carrying chains or their equivalents, provided with suitable projections for catching drawing forward, and carrying immediately under the delivery follower the boards or platforms for receiving the pressed brick, and by which they are conveyed out of the machine, as described.

COPYING PRESSES—By E. H. Smith, of New York City: I claim, first, the employment of the hand lever to operate the pressing platen, through the agency, or by means of the sliding transverse bar, or its equivalent, in combination with the adjustable stop, or any other mechanical device substantially the same.

Second, the arrangement of the plates or platens, in such relation to their support and operating medium, as to render three of the four edges of each platen unobstructed, perfectly available, and easy of access.

TYPE CASTING MACHINES—By J. J. Sturgis, of New York City: I claim the use of the horizontal mould block rest, in combination with the vertical and horizontal rock shafts and cam for the purpose of obtaining a motion of the mould block as nearly horizontal as practicable, as set forth.

Second, I claim the use of the lever and rod, in combination with the horizontal mould block, rest, and matrix, as set forth.

Third, I claim the use of the matrix holder having a slot in it, to allow of a lifting motion on its center pin, and a notch in its back side for the end of a spring to act against, in combination with the spring, inclined plane, or cam, on the horizontal rock shaft and pin, for holding it, as set forth.

Fourth, I also claim the V-shaped bar, secured to an adjustable end plate, attached to the outer end of the lower half of the mould block, in combination with the upper half of the mould block, for the purposes set forth.

COOKING STOVES—By G. F. Filley, of St. Louis, Mo.: I claim, first, the flaring enlargement of the side flues, C and D, from the space above the oven, also the enlargement of the central flues, F and G, from the said flue space to the upper end of G, for the purpose of increasing the draught of all the flues and causing a larger portion of heat to be conducted into the flue space, as set forth.

In combination with the flaring shape of the flues C, D, and G, I also claim the auxiliary damper flue which rises from the flue space to the hearth plate, and thence is continued immediately under the fire

chamber and up the back of the same by which another portion of heat from the fire chamber is conducted by radiation and circulation, into the flue space, for the purpose of aiding in giving an increased draught to the stove, and in raising the temperature of the front end of the oven bottom to the required degree for baking purposes, as set forth.

MANUFACTURE OF GLASS—By Jas. M. Brookfield & E. V. White, of Honesdale, Pa., and Jacob Faatz, having been decided to be a joint invention with said White, the said Faatz & White, assignors to A. K. Hay & J. M. Brookfield: We claim the application of a blast, and anthracite coal as a fuel, in the manufacture of glass, as set forth.

STEREOTYPE PLATES—By J. L. Kingsley, of New York City: I claim, first, the process of expelling air from the surface of the type when forming the mould and from the surface of the mould when forming the plate, as set forth.

Second, I claim the method described or its equivalent of dressing, bevelling or thickening the moulds, and plates when made of gutta percha or compounds that run so that all the plates made shall be invariably of the same thickness, as set forth.

MANUFACTURE OF PLATE GLASS—By J. J. Greenough, of Boston, Mass.: I claim, first, manufacturing plates of glass by causing the glass while in a plastic state, to pass between two or more pairs of rollers, as set forth.

I also claim embossing the surface of plate glass, by passing it between embossing rollers, as described.

And lastly, I claim suspending plates of glass by their upper edges, after they have been formed, while annealing so as to keep them in a perfect plane, without resting on a bed.

RE-ISSUES.

LUBRICATING COMPOUND—By Patrick H. DeLan, of Reading, Pa.: I claim the combination of caoutchouc or other similar gum, with animal or vegetable oil or fatty matter, as specified, applicable as a substitute for oil in lubricating machinery and for other purposes.

APPARATUS FOR OPERATING SHUTTLE BOXES OF LOOMS—By J. A. Bowie & Chas. Carr, of Philadelphia, Pa. (assignees of Robt. B. Goodyear) Ante dated Sept. 13, 1848. Re-issued June 14, 1853. I claim the employment for the purpose of weaving, of an index plate, having movable and adjustable pins projecting at different distances from the face of said plate, in combination with the shoe, or its equivalent, having projections corresponding to the different length of pins, for the purpose of raising and falling, the shuttle boxes to correspond with the pattern desired to be formed, as described.

A New Car Ventilator.

One of our daily papers thus describes a method of car ventilation lately introduced on the Buffalo and New York Railroad, which is the invention of Dr. Foot, of Buffalo:—

"In the centre of the car there is a box about four feet high, by two feet and two and a half in its dimensions. In this revolves a fan wheel, on the circumference of which are teeth about half an inch long. This wheel moves in water to the depth of the teeth, and of course keeps a thick spray in the box when the car is in motion. The wheel is driven by a belt which connects with the car-axle. The air is sucked into the box at each side by the motion of the fan, which forces it through the spray into a conductor, which connects in several places with the car by means of ventilators, but in its passage through the spray it loses its dust and comes up pure. The car windows are to be shut in very dusty weather, and the air for breathing, pure and cool, passed through water, is to be thus furnished. The press of air made by the fan is so great that it will hold a hat suspended over one of the holes out of the top of the car. The experiment was successful to such a degree that it ought to be examined by competent judges."

[This plan strongly resembles one described on page 340, Vol. 7, Scientific American, invented by Harvey Law, of this city. The description to which we refer says: "Mr. Law remedies the evil of dust entering the cars by bringing the air in contact with revolving moist surfaces in troughs below the cars, and they take up all the sand and dust out of the air which is afterwards driven through the cars cool and pure." The idea of extracting the dust from the air to supply railroad cars by drawing it through the water, belongs to Mr. Law, although the same principle was patented to James Cummings in 1848, as applied to Spark Arresters.

ANOTHER CAR VENTILATOR—Another mode of car ventilation has been introduced on the Naugatuck Railroad, Conn., by Messrs. Atwood & Waterbury. The passenger cars of a train are all thrown into one long saloon by means of a flexible cloth or rubber platform, and the windows being kept closed and the train opened at the rear, a strong current of air is received just over the engine through a pipe or bag, as wide as the train, and some six to twelve inches deep, which passes in at the top of the front car, and so along through all the cars, and out at the rear.

Flying Machine.

We learn that nearly all the work of Mr. Porter's Aeroport is finished, and that in one

month it could be made ready for its voyage in open air. A little more money, however is needed to complete the arrangements, and a liberal interest is promised on the investment, the proprietor having no doubt whatever about the success of his aerial navigator. But the people at large have not the same degree of faith that Mr. Porter has, and therefore are reluctant to take part in the enterprise.

The Rotary.

On Saturday, June 11, we had the pleasure of making another trip up the North River with Ebenezer Barrows, Esq., in his beautiful little steamer "Rotary," and from her performance on this occasion, we see no reason to alter the opinion expressed in No. 3, of the present volume, which was written after the first trial trip of this little boat last summer. The boat has made frequent trips since that time, and the engine, although nothing has been done in the way of repairs, and not a screw has been disturbed, works even better than on that occasion, when we felt called upon to express our admiration of the smoothness, ease, and silence of its movements. Not a sound being audible but the escape of the exhaust steam—the engine working on the high pressure principle. It is believed that the packing fits better now than when it first started. It must be remembered that this is the first engine ever constructed on this principle, with the exception of one so small as to be a mere toy, and though it has been usual to make allowance for the defects of a first machine of peculiar construction, it is not necessary in this case to do so. In our first notice of the "Rotary," we gave the dimensions of the engine, recapitulation of these is therefore unnecessary, further than to remark that the whole area of the steam surface operated upon at one time, is but 54 square inches, and the average pressure of steam on this occasion was certainly not more than 60 lbs. per square inch; we should think much less, but as it varied considerably during the trip; we cannot be positive. It must be admitted that the above area of steam surface is very small to propel a boat of 70 feet length and proportionate beam, draught, &c., yet during some portions of the trip, the speed obtained, considerably exceeded ten miles per hour, the engine at the same time working pump and blower. The consumption of fuel is very small, we are informed about 110 lbs. per hour. One of the most remarkable features in the operation of this engine is, if we may so express it, its perfect obedience to command, the reversal being effected by simply changing the position of one handle, which changes the direction of its revolution without any clatter, or indeed the slightest perceptible sound or jar. The trips made by the Rotary have established the fact that this engine performs its duties with a very small expenditure of fuel, that its operation may be controlled by a child, and that it will run for a very long time without repairs. As it may be constructed cheaply in the first instance, it may be said to possess all qualities desirable in an engine. See engravings of this engine in No. 4, Vol. 8, Scientific American.

Maryland Institute at Baltimore.

The Sixth Annual Exhibition of this Institute will be opened in the City of Baltimore, on the 3rd of October next. Articles intended for the Exhibition will be received on Monday the 26th of September, and those designed for exhibition only will be received during that week, but those deposited for competition and premium must be entered before Thursday night, Sept. 29. Particular information in regard to the arrangements and management of the Institute may be obtained by addressing John S. Selby, Actuary of the M. I., Baltimore, Md.

Our readers are well aware of the high character that this Institute sustains, and we have no doubt that this display will equal if not surpass that of any former year—it will be one of unusual interest and utility. The officers and managers are men well qualified to give satisfaction to exhibitors, and they will use every precaution to give confidence and insure harmony and good feeling. The Hall in which the Fair will be held, our readers will remember, was described on page 32, Vol. 7, Scientific American; it is a spacious and

beautiful edifice, and will probably accommodate all who may wish to offer the products of their skill, ingenuity and taste for public observation. The Exhibition will close on or before Oct. 31.

A convention of some of our Southwestern States, just assembled at Memphis Tenn., has declared by resolution, that Cuba should be ours of a necessity.

Rock salt is said to have been found in the neighborhood of Rome, Ga.

TO CORRESPONDENTS.

J. M. G., of N. H.—We have frequently seen straw cutters constructed precisely the same as yours, it is not new; the indicator is the same as Ely's, which was invented four years ago. Morse & Manfield's car axle involves the same device as is embraced in yours for wagon's, the difference in application is not patentable.

R. J. M., of Savannah—We are not positively sure that either invention named in your letter could be patented. The patent fee in each case would be \$500; no one but the inventor could take the patent.

H. B., of N. Y.—We do not see why your improved valve would not work well. We are doubtful about its possessing any patentable features, this you can determine by an application for a patent.

W. B., of Geo.—We have seen an electro-magnetic machine constructed upon the same principle as yours, only the wheel was on a horizontal shaft, and the stationary magnets secured in a frame around it; the magnets on the arms were permanent, however, and in this respect differed from yours, but we believe you could not obtain a patent.

H. M. D., of Mass.—We like Bourne best, and recommend it, but examine the two for yourself:—Hodge is not out of print.

J. C. B., of Wheeling—We would not like to give you an opinion without having practically tested the two kinds of zinc, which we have not done; we consider the Jersey zinc equal to any other; this opinion is founded on examination merely.

G. V. McD., of Ct.—The rotary cutter and mould would be an infringement of Blanchard's patent.

J. H., of Ill.—Yours will receive attention next week.

Mr. J. A. C., of Ohio—Yours came rather late for this number.

J. A. S., of Pa.—What you call the backward current is the effort of the divided water to unite, which, in our opinion, does not affect the action of the paddles; great objections can also be urged against extending the paddles from the side of the ship.

J. J. P., of O.—The number of patents which have been issued on straw cutting machines exceed one hundred; the claims of all of them would cost you more than you would feel willing to pay, undoubtedly; our charge for copying claims is \$1 each.

E. B., of Wis.—The Wilson Sewing Machine, illustrated in No. 38, present Vol., is just the machine you require for your kind of work. The objections you advanced to the other machine, are obviated in Wilson's.

H. W. O., of Ct.—We are not practically acquainted with any substance that will unite two pieces of horn together, water-proof; still it is our opinion that common gutta percha cement will do it; try the experiment.

R. S., of Conn.—We have never seen your plan carried out, but the exhaust steam has been introduced into the furnace. Your plan is good, and does not infringe on any patent, but we do not believe it patentable.

J. G., of Ct.—Use lac dissolved in alcohol.

J. J. N., of Ohio—The best thing you can do is to communicate with J. T. & P., and state all the circumstances, and if you could find some person who has tried one, his experience would be of service to you; we could say nothing about recommending it or any other, excepting to say it was a good one in principle.

J. C., of R. I.—We have not the slightest confidence in your alleged improvements in balloons as embracing anything useful; if you have a different view, the only way is to build and test the invention.

M. H., of N. Y.—There is something in your device for cutting grain, which appears to be new and patentable. We think you are justified in making an application for a patent.

C. T. M., of Miss.—A model could not be made from the daguerreotype.

J. P., of Ky.—Your sketch we have received, and we shall attend to the examination at once.

Money received on account of Patent Office business for the week ending Saturday, June 18:—

C. S., of N. Y., \$25; G. W. C., of Ga., \$30; W. K. P., of Mass., \$55; W. M. S., of N. Y., \$100; S. J., of N. Y., \$20; D. A. M., of Pa., \$55; H. C., of N. Y., \$20; A. E. B., of R. I., \$30; B. H. B., of Ct., \$25; I. W. McG., of Pa., \$30; B. & W., of Ct., \$20; W. T. B. M., of N. Y., \$125; J. A., of O., \$25; A. B., of Miss., \$35; A. T. C., of Pa., \$20; J. W. M., of Ala., \$55; C. F. B., of R. I., \$25; S. & McK., of N. Y., \$25; S. C., of N. Y., \$25; A. C. R., of N. Y., \$32; W. T., of N. Y., \$55.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday June 18:—

D. A. M., of Pa.; H. C., of N. Y.; C. F. B., of R. I.; S. B. & Co., of Mass.; B. H. B., of Ct.; J. B. C., of Ohio; J. A., of Ohio; S. C., of N. Y.; S. & McK., of N. Y.