No. 2627. JAMES S. HOWE, Santa Cruz, Cal., U. S., 12th August, 1873, for 5 years: "Adjustable Swage for Saw-teeth." (Rainette de scie mobile.)

Claim.—1st. A swage for widening and sharpening saw teeth consisting of the steel bar A, and wooden stock or base B; 2nd. The egg-shaped stock or base B, with its V shaped recess or groove in combination with the square steel-bar A, and bands or clamps D, D.

No. 2628. EDWARD MYERS, Jersey City, N. Y., U. S., 12th August, 1873, for 15 years: "Rotary Engine." (Machine rotatoire.)

Claim.—1st. The rotating piston G, made with a flanged head and rigidly connected with the shaft; 2nd. The eccentric slotted drum and slotted cylinder or bearing in combination with the shaft B, cylinder A, a^1, a^2, a^3, and piston G; 3rd. The piston G, made with detached self-adjusting cap, and edge plates kept in place by dowel pins and held out against the inner surfaces of the heads and body of the cylinder by coiled springs inserted in the dowel holes and pressing against the inner ends of the dowel pins.

No. 2629. JOHN C. HUNT, Sioux City, Iowa, U. S., 12th August, 1873, for 5 years: "Apparatus for Steaming and Heating Grain." (Appareil à chauffer et à passer le grain à la vapeur.)

This invention is designed for use in connection with the grinding mechanism of a flouring mill for heating or steaming the grain before grinding.

Claim.—1st. The steam drum C, D, fitted with pipes E, E, perforated throughout a portion of their length, and furnished with a hopper G; 2nd. The diaphragm b, in conjunction with the steam drum, and pipes E, perforated as described; 3rd. The combination of the two steam induction pipes J, K, with the perforated pipes E, E, and the steam drum divided into two compartments; 4th. The cone H, in combination with the pipes E, E, and the hopper G.

No. 2630. HENRY F. WHEELER, Boston, Mass., U. S., 12th August, 1873, for 5 years: "Boot and Shoe Sole Trimming Machine." (Machine à finir les semelles des chaussures.)

Claim.—1st. The combination of a rotary head or disc, and a transverse carriage with a sliding jack-carrier or their equivalents so arranged that the carrier at times executes a movement independently, and transversely of the disc, for the purpose of operating upon the sides of a sole and at other times revolves in company with said disc when the toe or heel partition of the sole or of the boot is to be operated upon; 2nd. The combination of the rotary disc and transverse carriage, or their equivalents, and a sliding jack, under such an arrangement that the toe or heel portion of the jack shall execute a semi-rotary movement in the arc of a very small circle about or nearly about the axis of the disc, or support of such jack, by which means the operating tool acts powerfully and perfectly upon the boot; 3rd. The combination of a rotary disc and a transverse carriage or their equivalents, the latter carrying a sliding jack and so constituted and arranged that the jack is fed laterally with a straight, rigid and uniformly steady, and powerful movement to effect the work upon the sides of the sole and turned in the arc of a small circle to execute the work upon the toe and heel of the sole in an equally steady, powerful and unyielding manner, by which a smooth and perfect surface is effected upon the leather; 4th. The combination of a rotary head or disc, a carriage disposed transversely thereof and a jack applied to such carriage, the arrangement of the whole being such that the carriage at times is stationary and constitutes an immovable and rigid slide or guide upon which the jack slides, and at times constitutes in combination with the disc a point of rotation for said jack; 5th. The employment of the rods g, g, and spring catches C^1, or their equivalents in combination with the disc S, carriage U, and jack carrier D^1, whereby the carriage is locked in a rigid and unyielding position while constituting a guide or slide for the jack or its carrier; 6th. The employment of the tubular screw as a means of driving the jack carrier, and also the pinions of female clutches as a means of communicating the power of the rotary disc to the jack carrier; 7th. The employment of the rods g, g^1, clutches e, e^1, and sloping or crowning abutments B^1, or the mechanical equivalents of such devices, whereby at such times as the transverse carriage is locked in an immovable position, the proper pinion is engaged with the bevelled gear disc S, or the actuator of the feed screw, whatever it may be, in order to drive the jack carrier along the said carriage; 8th. The employment of the carriage U, or its equivalents so constituted, mounted and operated as to constitute at times a slide or guide for directing the movements of the sides of soles under the action of the tool, and at times constituting a turning point or pivot whereby the toe and heel describe a short sweep in the arc of a circle under the action of the tool; 9th. In combination with a carriage constituted and operated as last above named a jack or jack carrier mounted upon and sliding to and fro, from such carriage; 10th. The described jack or one of equivalent construction whereby the boot may be jacked without the insertion of a last within it prior to its introduction to the machine; 11th. The employment of the handle b, as applied to the standard or frame E; 12th. In combination with the mechanism which drives the rotary head or disc S, the bevelled gears I, I^1, and J, male clutches sleeve H^1, and swinging lever g^2, or the mechanical equivalents of such elements, whereby the direction of motion of the disc and the object carried or driven by it may be reversed; 13th. In combination with the last above named gears, clutch and lever, the knee shipping lever i^2; 14th. In supporting the swaging or vibratory crane or beam D, upon anti-friction rollers; 15th. The combination and arrangement of the gears I, I^1, and J, shaft or rod K, gears L, and O, shaft M, and gears P, and Q, as a driving mechanism, and a universal joint between the driving shaft F, and disc S; 16th. The employment of a tool-stop carrying two or more tools and so mounted as to be readily reversed in order to bring either tool into action; 17th. In mounting the tool carrier in the manner shown whereby it is susceptible of variable motions; 18th. In combination with the various elements of the machine, the shelf or tablet C; 19th. The general arrangement and organization of the various mechanical agents, hereinbefore named, whereby a working machine is produced.

No. 2631. ROLLIN R. GREGG, Buffalo, N. Y., U. S., 12th August, 1873, for 5 years: "Pneumatic Railroad." (Chemin de fer pneumatique.)

Claim.—1st. A pneumatic railway tube formed of the longitudinal stringers C, C, with cross ties A, A, and planks b, b, bolted thereto in combination with the circular arched shell composed of the sides d, d, and bands e, e; 2nd. In combination with the track, the stringers C, C, forming a continuous guard the entire length of the road to prevent the wheels jumping the track; 3rd. The inner guard stringers C^1, C^1, in combination with a pneumatic railway tube and track; 4th. In combination with the curved sides d, d, and longitudinal stringers C, C, the inclined water guard J, 5th. In combination with a pneumatic railway tube, a propelling car, a component portion of which forms a diaphragm or piston conforming to the transverse shape of said tube, but sufficiently less in size to ensure its clearing the inner walls thereof at all points, thus leaving a narrow space between the two; 6th. The diaphragm or piston of the draft car formed of the frame K, and the series of segmental sections or valves h, h, h, h; 7th. In combination with the segmental sections h, h, auxiliary valves i, i, 8th. The angular ribs j, j, in combination with the flat rubber strips l, l, for excluding air from the pneumatic tube when the doors L, L, are closed.

No. 2632. CHARLES B. CLARK, Buffalo, N. Y., U. S., 12th August, 1873, for 5 years: "A Blind Hinge." (Une charnière de persienne.)

Relates to the class of hinges which are self-fastening when opened.

Claim.—1st. The incline a, b, and plane d, on the part B, in combination with the double inclines e, f, on the part A; 2nd. The bevel i, on the latch C, in combination with the inclines e, f, and a, b; 3rd. A self-locking hinge, the elongated slot j, in combination with the bevelled latch C; 4th. In self-locking hinges the raised bead r, r.

No. 2633. NATHAN B. ABBOTT, Brooklyn, N. Y., U.S., 12th August, 1873, for 5 years: "Composition pavement." (Pavage en composition.)

Claim.—A surface for pavements and walks composed of a bituminous compound consisting of pitch and crude creosote, in combination with small stones, prepared and laid as specified.

No. 2634. JOHN R. CROSS, New York, U. S., 12th August, 1873, for 5 years: "Process of Transferring the Grain Marks of Wood and other Configurations." (Procédé d'imitation du bois et autres objets.)

Claim.—1st. The roller or curved surface B, with a smooth elastic surface, as a means of transferring configurations or designs when employed in the manner described; 2nd. The process described of transferring configurations or designs.

No. 2635. JOHN N. WALLIS & THEODORE WALLIS, Fleming, N. Y., U. S., 12th August, 1873, for 15 years: "A Coffin." (Un cercueil.)

Claim.—A burial casket, the sides a, a, provided with the vertical flanges d, and clasps e, respectively inter-locking, as described.

No. 2636. JOHN CONNOR, Philadelphia, Penn., U.S., 12th August, 1873, for 5 years: "Saw Tooth Swage." (Presse à dents de scie.)

Claim.—A saw-tooth-swage, composed of a block A, notched, drilled and slotted and combined with a tapering ferrule B.

No. 2637. BRAY WILKINS, Fairfield, Me., U. S., (Assignee of Joseph L. True,) 12th August, 1873, for 5 years: "A Potatoe Planter." (Traceur-butteur à patates.)

Claim.—1st. The combination of the hopper E, with the bed piece A^1, by means of the projections E^1, and ear pieces d; 2nd. The combination with the rotary dropping plate F, provided with one or more openings K, of one or more curved potato forcing arms i,