

No. 24,477. Steam Injector.*(Injecteur de Vapeur.)*

The Penberthy Injector Company, Detroit, Mich., (assignee of William Penberthy, Leadville, Col.) U.S., 9th July, 1886; 5 years.

Claim.—1st. In an injector, the combination, with the tubular casing or casting having the receiving water chamber, and the waste water chamber, of the tubular stem having the jet pipe, the tubular stem having the combining tube and the overflow or waste water valve, substantially as and for the purpose set forth. 2nd. In an injector, the combination, with the casing or casting having the inlet and outlet arms or pipes, the receiving water chamber and the waste water chamber, of the over- or spring-actuated valve, the stem having the steam inlet or jet pipe, and the tapering combining tube comprising the apertured lifting tube and the delivery tube, substantially as and for the purpose set forth. 3rd. In an injector, the combination, with the casing having the steam jet pipe, and the water supply pipe connection or arm of the removable combining tube, and the apertured lifting tube with its tapered end or nozzle, substantially as and for the purpose set forth. 4th. In an injector, the combination of the overflow or waste water pipe with its spring-pressed valve, with the casing or casting having the jet pipe, the combining and delivery tubes, and the removable lifting tube, together with the receiving water chamber and overflow or waste water chamber, said lifting tube having its lantern-shaped portion provided with a screw-thread for securing the same to the said combining tube, substantially as and for the purpose set forth. 5th. In an injector, the combination of the combining tube having the tapered passage, the delivery tube integral with said combining tube, the apertured lantern-shaped lifting tube, and the pipe connection and nut for securing the lifting-tube against the wall in the casing or casing, substantially as shown and described. 6th. In an injector, the lifting, combining and delivery tubes herein described, comprising the tapered combining tube having an outer screw-threaded surface, the lifting tube having the apertured lantern-shaped portion, and correspondingly threaded on its inner surface at one end and its tapered end or nozzle, the delivery-tube integral with said combining-tube, and the lateral outlets or passages formed between said combining and delivery tubes, substantially as shown and described. 7th. In a steam injector, the combination, with the tapered combining-tube, and the delivery tube integral therewith, of the apertured lantern-shaped lifting-tube having its one end screwed upon the tapered end of said combining-tube, substantially as shown and described.

No. 24,478. Cutter Head for Matching Machines. *(Porte-lame pour Machines à Boweter.)*

James B. Mahaffey and Henry A. Gable, Baltimore, Md., U.S., 9th July, 1886; 5 years.

Claim.—A rotatable cutter-head, provided with an eye for attachment to a mandrel or shaft, and having a tongue cutter with a straight peripheral face *c*, and a dividing-flange *d* extending along the face and a depression *e* parallel with the peripheral face, as set forth.

No. 24,479. Saw Sash for Reciprocating Saw Mills. *(Porte-Scies pour Scieries à Scies Verticales.)*

William M. Wilkin, Erie, Penn., U.S., 9th July, 1886; 5 years.

Claim.—1st. A gang-sawmill saw-sash consisting of vertical stiles, and upper and lower girts, with proper means for attaching the saws to said girts, formed of one piece of metal, substantially as and for the purposes set forth. 2nd. A gang-sawmill saw-sash having the slot *b* vertically through its upper girts, the groove *d* forming a catch along the top of its lower girt, guide ribs *g*, *h* on its sides and the needle-pin *i*, as shown, formed of one piece of metal.

No. 24,480. Float. *(Flotteur.)*

Allen J. Wright, Cleveland, Ohio, U.S., 9th July, 1886; 5 years.

Claim.—1st. A float consisting essentially of a shell made in two parts, and joined together by means of an internal band, arranged to overlap the joint, the two parts of the shell being preferably forced and shrunk upon the band, substantially as set forth. 2nd. In a float, the combination, with a shell made in two parts, of an internal band arranged to span the external joint, said band having one or more inside ribs or flanges, substantially as set forth. 3rd. In a float, the combination, with a shell made in two parts, of an internal band for uniting the two parts of the shell, said shell having offsets or shoulders for engaging the edges of the internal band, substantially as set forth. 4th. In a float, the combination, with a shell made in two parts that are joined by an internal band, of a lock-joint formed by spinning or compressing the edge of one part of the shell over a shoulder flange or projection of the other part of the shell, substantially as set forth.

No. 24,481. Tub and Box Cover Fastener.*(Ligature de Couvercle de Tinette et de Boite.)*

Almer B. Thomas, West Randolph, Vt., U.S., 9th July, 1886; 5 years.

Claim.—1st. A fastener for boxes consisting of two arms bent at right angles to each other, and each having fastening barbs, one of said arms being formed with its lower portion on a curve, whereby the lower barb will be kept out of the way while the upper barb is driven into place, substantially as and for the purpose set forth. 2nd. A fastener for boxes consisting of two arms having fastening barbs upon their ends, the said arms being bent at right angles to each other for a part of their length, the lower half of one arm being formed upon a curve, so that the point of the lower barb is in the same plane with the vertical portion of said arm, the said barb being also formed on a curve, substantially as described.

No. 24,482. Mill for Reducing worn out Iron or Steel Rails into Bars. *(Moulin pour Réduire les Ferrailles ou Rails de Fer ou d'Acier en Barres.)*

Edwin D. Wassell, Pittsburgh, Penn., U.S., 9th July, 1886; 5 years.

Claim.—1st. In a mill for reducing old iron or steel rails to flat bars, the curving or shaping of the head or tread of the rail, and the bonding over of one part of the flange of the rail, while the other part of the flange is being reduced, substantially as herein described. 2nd. In a mill for the reduction of old and worn out rails to a flat bar, the grooves A, B and E of the contour shown, in combination with the projections F and G, and corresponding grooves H, I, substantially as herein set forth. 3rd. In a mill for reducing a billet of metal to a flat bar of increased width, providing one or more grooves with projections F, G, and corresponding grooves H, I, substantially as herein described.

No. 24,483. Reciprocating Sawmill.*(Scierie à Scies Verticales.)*

William M. Wilkin, Erie, Penn., U.S., 9th July, 1886; 5 years.

Claim.—1st. In a reciprocating sawmill, the combination, with a vertically guided saw frame, of a vertically-guided counterbalance and a crank shaft, and connections for reciprocating said frame and counterbalance simultaneously in opposite directions. 2nd. In a gang-sawmill, the combination, substantially as shown, of a reciprocating saw-sash, a crank shaft and connecting-rod for reciprocating said sash, and a counterbalance guided between the crank-shaft and connected to a crank in said crank-shaft, which stands opposite the crank which moves the saw-sash. 3rd. In a reciprocating sawmill, the combination of a framework, a saw-frame or sash mounted so as to be reciprocated in said framework, a counter-weight mounted so as to be reciprocated in said framework, a crank shaft having opposite cranks mounted in said framework between the said saw-frame and the said counter-weight, and connecting rods connecting said oppositely placed cranks with the saw frame and the counter-weight, in a manner substantially as shown, whereby the said saw-frame and counter-weight will be simultaneously reciprocated by said crank-shaft.

No. 24,484. Box Fastening and Lowering Device. *(Appareil pour Assujétir et Descendre les Boîtes.)*

William S. Thayer, Oswego, N.Y., U.S., 9th July, 1886; 5 years.

Claim.—1st. A fastening for the covers or lids of boxes, consisting of a pivoted clamp adapted to rest over and upon said cover or lid, and stops to limit its horizontal motion in either direction, substantially as and for the purpose set forth. 2nd. A box for enclosing coffins, provided at its sides with loops or handles projecting above the box, in combination with straps passing through the loops or handles and extending across the top of the box, as a means for lowering the box in the grave, substantially as and for the purpose described.

No. 24,485. Car-Coupler. *(Attelage de Chars.)*

Martin Fennell, Skaneateles, N.Y., U.S., 9th July, 1886; 5 years.

Claim.—1st. The combination of the draw-head C, provided with the horn E, having the convex and concave surfaces E₁, E₂, of the bail H having the enlargement H₁, whereby said link, when at a certain angle to an opposite coupler, may disconnect itself by riding upon the said convex portions, substantially as specified. 2nd. The combination of the draw-head C, projecting curved horn E, having the convex surface E₁, and the concave surface E₂, the bail H having the lateral enlargement H₁ and lip H₂, with devices for raising said link, substantially as specified. 3rd. The combination of the draw-head C, projecting curved horn E having the convex surface E₁, and the concave surface E₂, with the bail H mounted upon a rock-shaft having a bearing in rear of said horn, and within the draw-head, said shaft being bent at each end to form crank-handles, substantially as shown and described.

No. 24,486. Fish Weir. *(Parc de Mer.)*

James McLean and Peter McMahn, Letete, N. B., 9th July, 1886; 5 years.

Claim.—1st. A fish-weir having posts A and braces F, secured to stones E by link or shackle B, bolt C split at one end and straddling a wedge D, as set forth. 2nd. The method of securing the bolts C to the stones E by sinking a hole in the stone, splitting the bolt lengthwise from one end, inserting a wedge D therein, and driving the bolt into the hole, as set forth. 3rd. The link or shackle B, eye-bolt C having a split end and wedge D, as set forth for the purpose described.

No. 24,487. Cartridge Belt.*(Banderolle de Cartouchier.)*

James Nosworthy, Belleville, Ont., 9th July, 1886; 5 years.

Claim.—1st. The combination, with a cartridge belt, of an adjustable or sliding thimble, to receive the strap constituting the belt, the said thimble formed with an offset in its face to also receive a narrower strap, and having an opening in the said face, so that the narrower strap may be drawn through to form a loop to receive the cartridge, as and for the purpose specified. 2nd. The combination, with the cartridge belt, of two or more adjustable or sliding thimbles, to receive the strap constituting the belt, the said thimbles formed with an offset in their faces to also receive a narrower strap, that a loop may be formed by the said strap between two of the said thimbles to receive a cartridge, as and for the purpose specified.