No. 6659. Machine for Folding the Edges of Shoe-vamps.

(Machine à remployer les empeignes de chaussures.) John W. Lufkin and Richard H. Lufkin, Chelsen, Mass., U. S., 11th October, 1876, for 5 years.

Claim—1st. In combination with the work supporting bed Λ the vertically recuprocating blade b and stationary shearing block T arranged to operate relatively to each other; 2nd. In combination with a work supporting bed Λ and a vertically reciprocating cutting blade, the feeding bar J and presser bar I arranged above the work and operating together and relatively to each other; 3rd. In combination with the work supporting bed Λ mechanism for folding and pressing the edge of the material when fed along wherein are employed the block U and presser V, or any other devices for producing the same result; 4th. In combination with the entting blade b and feed bar J and presser bar I, the folding block U and fold presser V operating together and relatively to each other; 5th. An elastic or yielding fold presser consisting of block V and presser V, or any other devices. 6th. In combination with mechanism for successively feeding and folding the work a device f or its equivalent to applying an adhesive substance to the edge to be so folded. -ist. In combination with the work supporting bed A the vertically

No. 6660. Improvements on Handles for Pocket and other Knives.

(Perfectionnements aux manches d. outeaux pliants et autres.) Herman Funke, New York, U. S., (Assignee of Joseph W. Gardner), 11th October, 1876, for 15 years.

Claim.—1st. A lining for the handles of pocket and other knives having the bolster ϵ formed by bending a portion of the lining so as to lap over the scale. 2nd. The overlapping tip b.

No. 6661. Improvements on Saw Mill Dogs.

(Perfectionnements aux clameaux de scieries.) Joseph Van Norman, Tilsonburg, Ont., 11th October, 1876, for 5 years.

Claim —The manner of effecting the downward and drawing motion to the teeth $c \in c \in c$, by means of the combination of the sliding bolts h h h and the slides or openings B and B h.

No. 6662. Improvements on Wardrobe

Hooks.(Perfectionnements aux crochets de garde-robes.) James E. Bryan, Humboldt, Ka., U. S., 11th October, 1876, for 5 years.

Claim.—The combination with the suspending bar A of the hinged spring clamp bar C, the ends of the same being curved respectively downwards and uewards.

No. 6663. Improvements on Feather Renovators.

(Perfectionnements aux machines à rafeatchir la plume.) Nathan P. Chaney, Potsdam, N. Y., U. S., 18th October, 1876, for 5 years.

Claim .- 1st. The combination of section A provided with lugs C covered cdiment chamber G, steam pipes F L, heating chamber I and shaft N having agitating arms with the section B provided with notched flanges D and door E, 2nd. The provision to the drum B of the conductors O connected to a ventilating shaft. 3rd. The provision to the drum B of the removable lining P.

No. 6664. Machine for Manufacturing Tongued and Grooved Lumber.

(Machine à fabriquer le bois bouvett.)

Philip P. Josef, Buffalo, N. Y., U. S., 19th October, 1876, for 5 years.

Claim.—1st. The method of forming the tongues in tongued and grooved lumber by means of a series of upper and under cutters; 2nd. The divided spindles S S, in combination with the pullies P P and the heads E E.

No. 6665. Steam Cylinder Lubricator.

(Graisseur de cylindre à vapeur.)

Ransom C. Luce and George S. Woodruff, Grand Rapids, Mich., U. S. (Assignees of Elijah McCoy), 19th October, 1876, for 5 years.

Claim.—1st. The combination of the chamber B. the regulating tube (open from top to bottom and having perforations x and the valve d with stem e and valve seats a b: 2nd. The passages m and n formed in the donble valve d c.

No. 6666. Hook for Catching Fish and Game.

(Hameçon pour le poisson et le gibier.)

Benjamin F. Smith and William K. Bowman, Philadelphia, Pa., U. S., 19th October, 1876, for 5 years.

Claim.—1st. The shank A terminating in a disc B having passages for the hooks dd; 2nd. The crown D forming a base for the attachment of the hooks dd and affording a passage for the shank; 3rd. The latch C, dog F and bait holder G, arranged and combined for conjoint operation; 4th. The combination of shank A, disc B, crown D and spiral spring E; 5th. The combination of shank A, disc B, latch C, crown D, hooked d, spring E, dog F and beit beloc C. F and hait holder G.

No. 6667. Improvements on Water Engines and Pumps.

(Perfectionnements aux machines hydrauliques et aux pompes.) George Wells, Montreal, Que., 19th October, 1876, for 5 years.

Claim.—1st. The cylinder g having convex surface k and port k, in combination with concave surface d having ports i and k; 2nd. The cylinder g in combination with brackets s provided with adjustable bearings. 3rd. The cylinder g, cover unand port s combined at k. The combination of the casing ℓ , discharge r and oscillating cylinder g: 5th. The cylinder g having port ℓ , in combination with concave surface d having port k and vessel p.

No. 6668. Manufacture of Belt Pulleys.

(Fabrication des rius à courroies.)

Augustus L. Bricknell, London, Eng., and Alexander A. Hall, Nashville, Ten., U. S., 19th October, 1876, for 15 years.

Claim .- 1st. Casting a solid rim in a mould having a vielding non-chilling Claim.—1st. Casting a solid rim in a mould having a violding non-chilling core and a permanent face surface, whereby a well limshed belt face and a practically circular rim is economically attained. 2nd Separately casting the hub and the rim the former with its arms or their equivalents being cast in any suitable manner and the latter cast in a mould having a permanent face surface and a yielding non-chilling core, the two parts being concentrically arranged and united together at the joints, whereby smooth faced and practically concentra palleys may be economically produced: 3rd. A belt pulley having a solidly cast rim and a separately cast hub with arms which are united to the rim.

No. 6669. Car-coupling. (Atteluge de wagon.)

Joseph W. Bates, Joseph W. Bates, Jr., Minneapolis, Minn., Rudolphe. Borgersrode, and Charles O. Borgersrode, Philadelphia, Pa., U. S., 19th October, 1876, for 5 years.

tober, 18(6), for 5 years.

Platin.—18t. The drawhead A constructed with interior rounded jaws a and side opening bb. 2nd. The coupling bar D constructed with central bulge i, and spear-shaped heads bh having concave shoulders xx; 3rd. The combination of the draw-head A provided with the interior rounded jaws a a, and the coupling bar D provided with the spear-shaped heads having concave shoulders x, 4th. The L shaped tripper C hugged within the draw-head and operating in combination with the coupling bar D; 5th. The apron C higged within the draw-head and operating in combination with the coupling bar D; 5th. with the coupling bar D.

No. 6670. Letter File and Binder.

(Liusse groupe-lettres.)

Newton S. Otis, New York, U. S., 19th October, 1876, for 5 years.

Claim—1st In combination with the binding machine B provided with the clamping bar P the pointed needles L L attached to binding bar K and flat or channelled binding strip R; 2nd. In combination with the permanent binding covers O O and the binding bar K carrying needles L, the flat or channelled binding strip R operating to permanently bind letters or papers; chambled binding strip R operating to permanently bind letters or papers; 3rd. In combination with the binding machine B and covers A, the clasp M pivoted to lower cover A; 4th. In combination with the sackets g and $\tilde{\tau}$ attached respectively to the base of the binding machine B and lower cover A and the shding clasp h. 5th. In combination with the binding machine B, the clamping bar P when provided with the raised handles Primd Pu; fith. The strips or wings N N_L projecting from the base and inside of the covers O Or and operating as a binding device, in combination with a bar or bars armed with a series of needles or wires tapering to a point, or provided with eyes or slotted near their points, and an anxiliary binding strip or bar either channelled flat or tubular.

No. 6671. Life Raft. (Radeau de sancetage.)

George Thompson Kingston, Ont., 19th October, 1876, for 5 years.

Claim.—Ist. The doplex semi-ethic pottons A and B hinged together. 2nd. The pontoons A and B hinged together and provided with a cork or wood casing E peripherally. 3nd The pontoons A and B hinged together and having the casing E and the cork or wood bottom F; 4th. The pontoons A and B hinged together, provided with the following stanchions H carrying a net work I, 5th. The pontoons A and B having an automatically acting eatch D; 6th. The pontoons A and B hinged together and provided with compartments G.

No. 6672. Art of Preparing and Preserving Tanning Solution.

(Art de preparer et conserver les solutions tanniques.)

James Folcy, Montreal Que. 19th October 1876, for 5 years.

James Foley. Montreal Que. 19th October 1876, for 5 years.

Claim.—1st. The process of employing hisulphate of lime and sulphate of soda, separately or combined, in the preparation of tanning solutions by adding them to water to be used for leaching bark and for preparing tanning solutions from other substances and adding them to solution prepared in the ordinary way; 2nd. The process of preserving tanning solutions, preventing and arresting the decomposition of the tanne acid and its conversion into gallic acid, and of destroying the effect of the coloring matter or dye in tanning solutions, which consists in the employment of bisulphate of line and sulphate of soda or their equivalents, either separately or combined, with tanning solutions. 3rd The process of preparing tanning solutions by means of water impregnated with the funct of brimstone or by adding to water pre-lows to being used, liquid sulphurous need. The process of preparing tanning solutions by means of moistening or impregnating bark with bisulphate of line, sulphate of soda and liquid sulphurous neld, either separately or combined previous to the bark being saturated with water. saturated with water.

No. 6673. Improvements on Bechives.

(Perfectionnements and ruches.)

Henry Roush, Siam, Iown. U.S., 19th October, 1876, for 5 years

Claim-1st. The floor of a beehive constructed with a recess, the surface of which is covered or faced with glass or analogous material, 2nd. A four-sided inclined recess n made in the bench a, the sides of which recess are covered with glass, in combination with the hole r and door t.

No. 6674. Improvements on Churn Dashers.

CPerfectionnements aux batte-beurre.)

Athert G. Kerr. Clapham Que., 19th October, 1876, for a years.

Claim.—In combination with the dasher shaft A, the revolving head B pivoted thereto by the pin C, having spirally arranged radial wings E