

ones turned outward in the direction of the ends D and E, substantially as specified.

**No. 26,641. Piston adapted to Pumps and Valves as well as to Engine Cylinders.** (*Piston propre aux pompes et aux soupapes comme aux cylindres des machines.*)

Tom. Thompson, Hanley, Samuel Thompson, Stoke-on-Trent, and Thomas M. Favell, Etruria, (assignees of William Dixon, Sheffield, and Samuel Thompson, Stoke-on-Trent,) Eng., 6th May, 1887; 5 years.

*Claim.*—1st. A piston provided in its periphery with packing rings extending circumferentially around the same, and a spring-pressed ring behind the packing rings at their adjoining edges, and serving to force the said packing rings outwardly and laterally, substantially as and for the purpose specified. 2nd. A piston provided in its periphery with packing rings extending circumferentially around the same, and a spring-pressed reversely bevelled ring behind the said packing rings, the apex or the reversely-bevelled ring fitting between the packing rings and serving to force them outwardly, and laterally, substantially as and for the purpose specified. 3rd. A piston provided in its periphery with packing rings extending circumferentially around the same and bevelled at their inner or adjoining edges, and a spring-pressed reversely-bevelled ring bearing against the bevelled edges of the packing rings, substantially as shown and described. 4th. A piston provided in a peripheral groove thereof with packing rings, a reversely-bevelled ring behind and bearing against said packing rings, and spring-pressed blocks behind the said reversely-bevelled ring, substantially as shown and described. 5th. A piston provided in radial recesses or packets thereof with spring-pressed blocks or studs, a ring reversely bevelled on its outer surface and fitted in a peripheral groove of the piston, and packing rings fitting on said bevelled ring and bevelled to conform to the same, substantially as shown and described. 6th. In a piston, the combination, with packing rings fitted in the periphery thereof, of a segmental ring behind said packing rings, a series of studs or blocks in radial pockets or recesses in the piston, and spiral springs on the shanks of said studs or blocks, substantially as shown and described.

**No. 26,642. Rubber Dam Clamp.**

(*Griffe à caoutchouc pour dentiste.*)

Oliver Carpenter, Oakland, Cal., U.S., 7th May, 1887; 5 years.

*Claim.*—1st. A rubber-dam clamp comprising the curved hinged frame A, the jaws B in the grooved ends of said frame, and the set-screw C by which said frame is expanded and contracted, substantially as herein described. 2nd. A rubber-dam clamp comprising the hinged frame A, having the dovetailed grooves b in its ends, the jaws B inserted and held in said grooves, said jaws having their free ends fashioned to the surface of the tooth to which they are fitted, and the screw C by which the frame is expanded and contracted, substantially as herein described.

**No. 26,643. Padlock.** (*Cadenas.*)

Williston J. Albord, Bridgeport, Conn., U.S., 7th May, 1887; 5 years.

*Claim.*—1st. In a padlock, the combination, with the nose of the shackle and a stop projecting from the side of the padlock casing, of a rotary shell having arranged therein tumblers adapted to slide laterally, and having extending from its side a hook, said tumblers and hook adapted to engage with said stop and nose respectively when the said shell is rotated to lock the shackle, substantially as set forth. 2nd. In combination, with the shackle of a padlock, a shell capable of motion around a centre and arranged within the padlock case, spring-actuated tumblers within said shell adapted to slide laterally through the sides of the same, and means as a stop projecting from the padlock casing against which the extremities of the tumblers may abut, whereby the shell is securely held in locked position, substantially as shown and described.

**No. 26,644. Hot Water Heater.**

(*Calorifère à eau.*)

Thomas C. Stewart, Hamilton, Ont., 7th May, 1887; 5 years.

*Claim.*—1st. In a hot water heating boiler, a series of hollow rings C placed vertically one over the other, and provided with inlet and outlet pipes, and connected by outside coupling pipes, substantially as and for the purpose specified. 2nd. In combination, with the rings C, of a hot-water heating boiler, of a jacket or casing I surrounding the same, substantially as and for the purpose specified. 3rd. In combination, with the hollow rings C, of a hot-water heating boiler, of the lugs c, d on the top and bottom rings respectively, and the inlet and outlet opening a, b, substantially as and for the purpose specified. 4th. In a hot water heating boiler, the combination of the hollow rings C and the dome H, substantially as and for the purpose specified. 5th. In a hot water heating boiler, the combination of the hollow rings C, coupling pipes D, inlet and outlet pipes E, G, draft openings K, L, and casing I, substantially as and for the purpose specified.

**No. 26,645. Stovepipe Shelf.**

(*Tablette à tuyau de poêle.*)

Carlton E. Bailey, Merrickville, Ont., 7th May, 1887; 5 years.

*Claim.*—1st. The sections 1, 2 secured by arms 3 having serrations 4, and provided with lug projections 5, as set forth. 2nd. The sections 1, 2 having radial bars 7, and connected by a link 7 hung to one of the bars, as set forth. 3rd. The sections 1, 2, having indented bars, and provided with hooks 9 hung from the indentations, as set forth.

**No. 26,645. Ink-Well.** (*Encrier-fontaine.*)

Marcellus S. Smith, Independence, Mo., U.S., 7th May, 1887; 5 years.

*Claim.*—1st. An ink-well cover constructed in two sections, one of which is fastened to the upper surface of the desk and made stationary therewith, and the other hinged to said stationary section and opening in a plane that is parallel to said upper surface, substantially as specified. 2nd. The combination, with an ink-well cover constructed in sections and hinged together, of a well located on the upper surface of the desk and removably inclosed or incased by the sections of the cover, substantially as specified. 3rd. The combination, with sections A and A' hinged together, and provided with dip opening c of the well H inclosed by said sections and valve or slide b pivoted to the top of one section, as set forth.

**No. 26,647 Mechanism for Forging Hammers and other Tools.** (*Machine à forger les marteaux et autre outils.*)

Henry H. Warren, Côte St. Paul, Que., 7th May, 1887; 5 years.

*Claim.*—1st. The combination of the swage q and punch r, with swaging jaws f having swages i (actuated by) and with a spring o and inclines e, i, inclines d' of the horns c' and with lower die d, the whole substantially as described. 2nd. The combination, in a hammer forging, etc., mechanism substantially as described, of the swaging jaws f having swages i, spring o and head n, whereby the swages i are enabled to automatically bring the bar b to the proper relative position required, as described. 3rd. The combination, in a hammer-forging, etc., mechanism, of a reciprocating punch arranged to punch the eye of the hammer, with a pair of swages arranged to open further apart as the punch first enters the material and it is extended by the said punch as described and shown, and said swages being furthermore arranged to close and swage the sides of the material after the punch has entered the material and as the further process of punching is being carried on, substantially as described. 4th. The combination of the swage q having incline v, punch r, swages i and lower supporting die or anvil, the whole substantially as described.

**No. 26,648. Pinch Bar for Starting and Moving Cars on a Railway Track.** (*Lever pour mettre en mouvement les chars sur les voies de fer.*)

Charles E. Letts, Detroit, Mich., U.S., 7th May, 1887; 5 years.

*Claim.*—1st. A pinch bar provided with a heel which forms a loose fulcrum, in combination with an adhesive fulcrum plate, substantially as described. 2nd. In combination with a pinch bar having a rolling fulcrum at the heel thereof, a metallic shoe pivotally attached to said bar, substantially as and for the purpose described. 3rd. In combination with a pinch bar having a rolling fulcrum at the heel thereof, a metallic shoe pivotally attached to said bar and having a removable friction surface attached to the bottom of said shoe, substantially as and for the purpose specified. 4th. The combination, in a device for the purpose described, of a lever having a toe and a rounded heel, and a metallic shoe having ears for attachment of the shoe to the bar and flanges at each end, and a removable friction surface attached to the bottom of the shoe, substantially as set forth.

**No. 26,649. Spring Gear for Vehicles.**

(*Train de voiture à Ressorts.*)

James Steele, Guelph, Ont., 7th May, 1887; 5 years.

*Claim.*—1st. In combination with the axles A and B, the spring reach C suitably attached to said axles and carrying the saddle D rigidly attached to said reach, together with the front and rear supports E and F bolted on said saddle, substantially as described and for the purpose specified. 2nd. The spring D, in combination with the head block P and the rear support F, the said spring being pierced to receive the bolt L which is secured thereto, the strips m placed under said spring and bolted to the upper plate l by the bolts n, and the slotted plate N fixed to the lower side of the front support E, which is recessed at O to allow for the movement of the bevelled head of the bolt L which has curved lips M resting on the slotted plate N, substantially as described. 3rd. The spring H, in combination with the axle B and front support E, the said spring being pierced to receive the bolt L which is secured thereto, the strips m placed under said spring and bolted to the upper plate l by the bolts n, and the slotted plate N fixed to the lower side of the rear support F, which is recessed at O to allow for the movement of the bevelled head of the bolt L which has curved lips M resting on the slotted plate N, substantially as described. 4th. The axles A and B and spring reach C carrying the saddle D rigidly attached thereto, the rear support F bolted to the saddle and suitably attached to the springs G, which are also connected with the head blocks P, the said springs G being pierced to receive the bolts L secured thereto, the strips m bolted to the upper plates l by the bolts n, and the slotted plates N fixed to the lower side of the front support E, which is recessed at O, the bolts L having lips M, which rest on the slotted plates N, in combination with the springs H suitably attached to the rear axle B and front support E, which is bolted to the saddle D, the rear support F being also carried by the springs H, substantially as specified. 5th. The axles A and B and spring reach C carrying the saddle D rigidly attached thereto, the rear support F bolted to the saddle and suitably attached to the springs G, carrying as specified, the front support E which is bolted to the saddle D, which are also connected with the head-block P, the said springs G, in combination with the springs H, which have bearings on the front support E and rear axle B, and are pierced to receive the bolts L secured thereto, the strips m bolted to the upper plates l by the bolts n, and the slotted plates N fixed to the lower side of the rear support F, which is recessed at O, the bolts L, having lips M, which rest on the