

receptacle constructed of a water-proof material and shaped to approximate the contour of a foot, substantially as shown and described. 2nd. A foot bath receptacle, constructed of a water-proof material, approximating the form of a foot and provided with a roughened inner surface, substantially as shown and described. 3rd. A foot-bath receptacle constructed of rubber, approximating the shape of a foot and having its entire inner surface roughened, as and for the purpose specified.

No. 36,071. Brush for Cleaning Windows.

(*Brosse pour nettoyer les chassiss.*)

Mary L. W. Martinot, New York, State of New York, U. S. A., 4th March, 1891: 5 years.

Claim.—1st. As an improved article of manufacture, a window-cleaning brush having an adjustable handle, an adjustable pole and a connecting plate, the brush handle and the pole being attached at opposite ends of the plate, substantially as and for the purpose specified. 2nd. In a window-cleaning brush, the combination, with a sectional, adjustable pole, of a brush facing the said pole and provided with an extension handle, and a connecting bar or plate detachably attached to the brush handle and pole, as and for the purpose specified. 3rd. In a window-cleaning brush, the combination, with a pole, consisting of a series of adjustable sections having a threaded connection, of a brush facing in the direction of the pole, and provided with a handle comprising sections having a threaded connection, and a horizontal tie-plate connecting the brush handle and the pole, as and for the purpose set forth.

No. 36,072. Frog for Railroads.

(*Rail de croisement.*)

James Baird, Chignecto Mines, Nova Scotia, Canada, 4th March, 1891: 5 years.

Claim.—1st. In a railroad frog, the combination, with a bed supporting upon opposite ends the converging rails of the railroad track, and a rail pivoted upon the bed, of a pronged lever attached to opposite ends of the rail and extending beneath the opposite rail, a locking device directly engaging the lever, and a bar connecting the pronged lever with the switch rod, substantially as described. 2nd. In a railroad frog, the combination, with a bed supporting on opposite ends the converging rails of the track, the rails being horizontally slotted as shown, and a rail pivoted on the bed and provided at the ends with lugs extending into the slots of the track rails, of a pronged lever attached to opposite ends of the movable rail and extending through a slot in the opposite rail, and a lever mechanism connecting the end of the pronged lever with the switch rod, substantially as described. 3rd. In a railroad frog, the combination, with a bed and a rail pivoted on the bed, of a pronged lever attached to opposite ends of the pivoted rail and extending through a slot in the opposite rail, a horizontal strip extending below the slot and having notches to receive the end of the pronged lever, a bar connecting the end of the pronged lever with the switch rod, and a dog pivoted above the pronged lever and adapted to hold it in engagement with the notched strip, substantially as described. 4th. In a railroad frog, the combination, with a bed and a rail pivoted on the bed, of a pronged lever attached to opposite ends of the pivoted rail and extending through a slot in the opposite rail, a curved horizontal strip extending beneath the slot and provided with notches and a laterally-extending lug, a strip extending horizontally above the slot and provided with a laterally-extending arm having a dog pivoted thereon, a sliding bar loosely connected with the end of the pronged lever, said bar having on its under side a projection to engage the lug of the curved strip and upon its upper side notches to engage the dog, and an elbow lever pivoted upon a support and having one member connected with the sliding bar and the other with a switch rod, substantially as described. 5th. A railroad frog, comprising a bed supporting at opposite ends the converging rails of the track, the rails being horizontally slotted at the ends, a rail pivoted upon the bed and provided at the ends with horizontal lugs to engage the slots in the track rails, stops fixed to the bed to limit the movement of the pivoted rail and support the same, a pronged lever fixed to opposite ends of the pivoted rail and extending through a horizontal slot in the opposite rail, a curved strip extending horizontally beneath the slot, the strip having notches therein to engage the pronged lever, and a laterally-extending lug, a strip extending horizontally above the slot and provided with a laterally-extending arm having a dog pivoted thereon, a sliding bar loosely connected with the pronged lever and extending between the lug of the curved strip and the dog, said bar having upon its under side a projection to engage the lug and upon its upper side notches to engage the dog, and an elbow lever having one member pivoted to the sliding bar and the other connected with a switch, all substantially as described.

No. 36,073. Apparatus for Sinking Shafts.

(*Appareil de creusage des puits.*)

Richard Pennefather Rothwell, New York, State of New York, U.S. A., 4th March, 1891: 5 years.

Claim.—1st. For use in shaft-sinking, the movable caisson having a water-tight connection with the shaft-tubing, and provided with the interior tube rigidly connected to and movable with said caisson, said tube being in free communication with the open air, substantially as set forth, whereby workmen can safely descend in wet situations to great depths, and the lining or tubing be built on at the bottom. 2nd. For use in shaft sinking, the combination, of the caisson having water-tight connection with the tube rigidly connected thereto, and extending upwardly, said tube being in free communication with the open air, and a drill or boring tool, substantially as set forth, whereby a shaft can be sunk below water-level and water excluded from the space between the tube and tub-

ing while standing at the same level within the tube and outside the caisson and tubing, and the drill operated, and mud sand or rock removed while the hydrostatic pressure on the outside of the caisson, and shaft-lining is undisturbed and objectionable movement of the sand or soil prevented. 3rd. For use in sinking shafts, a caisson provided with a tube extending upwardly and in free communication with the open air and forming a rigid continuation of the wall of the caisson, the latter having a water-tight connection with the tubing of the shaft, whereby water will stand at the same level in the tube, and outside the caisson and tubing, in combination with jacks or other means of pushing down the caisson and tube, substantially as set forth, whereby water can be excluded from the caisson, a hydrostatic column maintained, a drill or other tool be used and the caisson lowered. 4th. In an apparatus for sinking shafts, a water-tight caisson having a water-tight connection with the shaft tubing, and having its floor continuous with an interior tube open to the air, said floor being provided with ports through which jets of water may be forced under heavy pressure to cut away the material through which the shaft is being sunk, and through which bars or other tools or electric lights may be passed to facilitate the work, substantially as set forth. 5th. In an apparatus for sinking shafts, a water-tight caisson provided with an inner tube, in combination with a boring-tool secured to the foot of a hollow rod, substantially as set forth. 6th. In an apparatus for sinking shafts, a water-tight caisson provided with an inner water-tight tube, and an interior hollow tool rod provided with means for producing an upward current through said hollow rod, substantially as set forth. 7th. In an apparatus for sinking shafts, a water-tight caisson provided with an inner tube, a tool-rod located in said tube, and a pipe for introducing a fluid under pressure immediately below the tool, substantially as set forth. 8th. In an apparatus for sinking shafts, a water-tight caisson provided with an inner tube, and strengthening-plates bolted to the caisson and tube, substantially as set forth.

No. 36,074. Apparatus for Removing Scale and Incrustations from Tubes, etc.

(*Appareil pour enlever les incrustations dans les tubes des chaudières à vapeur.*)

John Platt and Thomas Thorp, both of Manchester, England, 4th March, 1891: 5 years.

Claim.—1st. The combination, with a cylinder, to which fluid under pressure is admitted, of a piston within said cylinder, and arranged to be forced outward against the pressure of a spring, until exhaust ports having been uncovered and the fluid pressure in said cylinder sufficiently reduced, the spring forces the piston inward, the reciprocating motion of the piston thus set up being transmitted by the means herein shown and described, or their mechanical equivalents, to the chipping tools or cutters. 2nd. The combination, with the cylinder *b*, provided with exhaust ports *b'*, the piston *d*, spring *f*, piston rod *e* and tappet *g*, of the chipping tools *h*, supported on spring pieces *i*, secured to the cylinder *b*, and provided with projections *i'*, all substantially as and for the purposes herein set forth.

No. 36,075. Apparatus for Cleaning the Interior of Tubes.

(*Appareil pour nettoyer l'intérieur des tubes des chaudières à vapeur.*)

John Platt and Thomas Thorp, both of Manchester, England, 4th March, 1891: 5 years.

Claim.—1st. The improved tube cleaner, having a series of cutters or scrapers supported on an elastic foundation, capable of expansion by the application of fluid under pressure, substantially as and for the purposes herein set forth. 2nd. The combination, with the cutters *a* supported between metal collars *c*, *c'*, on a hollow stem or handle, such as *d*, of the elastic bed or foundation *b*, substantially as and for the purposes herein set forth.

No. 36,076. Chemical Fire Engine.

(*Machine chimique à incendie.*)

William Morrison, Toronto, Ontario, Canada, 6th March, 1891: 5 years.

Claim.—1st. A chemical fire engine, having a track rigidly fastened to its frame, and designed to support the wheels of a hose-reel, in combination with a supplemental track with its end arranged to hinge or pivot on the end of the rigid track, and designed to form a continuation thereof for the purpose of lowering the hose-reel onto the ground and reloading it onto the engine, substantially as and for the purpose specified. 2nd. A track *C*, rigidly fastened to the frame of a chemical engine, and having a supplemental track *D* hinged to it, in combination with the brace *F*, provided with a hook *G*, and means for shortening and lengthening the said brace, substantially as and for the purpose specified.

No. 36,077. Material for Treatment of Walls

(*Composition plastique.*)

Jose Berre King, West Brighton, New York, U.S.A., 6th March, 1891: 5 years.

Claim.—The herein described compound, consisting of a re-strainer, composed of powdered stone and glue, combined with ground stone, and a fibrous material, substantially in the proportions and for the purposes set forth.