

cylinders having their suction ends carried down into said tanks below partitions, the pump rods and a cross-head and handle for operating the same, substantially as described. 3rd. In a portable fire extinguisher, the combination of tanks adapted to hold two independent bodies of water, a common generating chamber, a suction pump cylinder fixed in each tank and having connection with said generating chamber outside and means by which the plungers of said pump cylinders are reciprocated simultaneously and holding devices outside of said tanks to hold cans or receptacles for acid and alkali, substantially as described. 4th. A fire-extinguisher consisting of twin tanks with removable covers, a generating chamber, pump cylinders having pump rods and a common cross head and handle, the carrying bail and removable receptacles, substantially as described. 5th. The construction, with the receptacle for acid and alkali in a dry state, of an interposed wrapping or case between the sides of the receptacle and the substances therein, substantially as described.

**No. 17,308. Improvement on Wood Grinders for Making Paper Pulp.**  
(*Perfectionnement des machines à moudre le bois pour faire la pâte à papier.*)

The Canada Pulp Company, Montreal, Que., (assignees of Stephen M. Allen, Duxbury, Mass., U.S.) 16th July, 1883; 5 years.

*Claim.*—1st. A wood grinder, for making paper-pulp, having the grinding surface composed of blocks with their edges in close contact and with the joints broken, substantially as described. 2nd. A wood grinder having a grinding surface of emery or artificial stone blocks separately compacted and laid so as to break joints and connected, substantially as described.

**No. 17,309. Method and Device for Taking Coal in Locomotive Tenders while in Motion.** (*Mode de déposer le charbon sur les tenders de locomotives en mouvement et appareil pour cet objet.*)

Michael H. Lantz and Nelson T. Clevenger, Marionville, Miss., U.S., 16th July, 1883; 5 years.

*Claim.*—1st. The method of taking coal in locomotive tenders while in motion consisting in forcing the same by the velocity of the train into and through a tube that will change the angle of incidence, until a right angle to the former path of the coal is reached, when its momentum is destroyed and its falls by its own gravity into the tender, as set forth. 2nd. In a device for taking coal on locomotive tenders while in motion, a tube having an elliptical quadrantal guide wall, as set forth. 3rd. The combination, with a locomotive tender, of a hinged curved tube adapted to take in coal while the tender is in motion, as set forth. 4th. The combination, with the locomotive tender having a fulcrum standard, of a hinged curved tube for taking in the coal and an operating lever for lowering and elevating the tube as set forth. 5th. The combination, with a hinged tube having a pin of a substantially T-shaped lever having a slotted end, an operating end and a shank or stem working and sliding in a vertical fulcrum standard, as set forth. 6th. The combination of the tender having a vertical bifurcated slotted standard and longitudinally slotted vertical guide O, the hinged curved tube having the pin and a T-shaped lever having a slotted operating end U, an operating end S and a stem having pins as and for the purpose set forth. 7th. The combination of the platform parallel with the track, a hinged tube on the tender having an elliptical quadrantal guide wall and an operating lever, as set forth.

**No. 17,310. Machine for Cutting Wooden Plates.** (*Machine pour découper les plaques en bois.*)

The Smith Manufacturing Company, (assignee of Seth H. Smith, Delta, Ohio, U.S.) 16th July, 1883; 5 years.

*Claim.*—1st. A machine for cutting concavo-convex shells continuously from a block of wood, the same comprising in its construction a revolving curved knife having both its ends attached to the driving shaft, and a facing knife attached radially to a shaft located at an angle to the driving shaft, substantially as set forth. 2nd. In a machine for cutting concavo-convex shells continuously from a block of wood, the combination of a revolving curved knife having both its ends attached to the driving shaft, a facing knife attached to the driving shaft, a facing knife attached radially to a shaft located at an angle to the driving shaft, and mechanism for feeding a block intermittently to the said knives after the throw of the cutting knife and before the throw of the facing knife, substantially as set forth. 3rd. The combination of the frame box having a collar upon its rear end, the feed screw journaled longitudinally in the said frame box projecting through said collar and carrying a ratchet wheel, a hub mounted upon the said collar and having two arms, one of which carries a spring pawl engaging the ratchet wheel while the other has a radially adjustable wrist-pin, a disk mounted upon a shaft parallel to the feed screw and having a radially adjustable wrist-pin, a pivoted rod connecting the two wrist-pins and suitable operating mechanism, substantially as and for the purpose set forth. 4th. The combination of the main shaft, the band wheel mounted loosely upon the same and having a clutch, a clutch collar sliding upon the shaft, a horizontal lever operating the said clutch collar, a vertical shaft having at its lower end an arm supporting the rear end of the lever between two vertical pins, and at its upper end an inwardly projecting arm, and the follower having a longitudinally adjustable stop stud, substantially as set forth.

**No. 17,311. Improvements in Grease Cups.**  
(*Perfectionnements aux boîtes à graisse.*)

Barnim F. Ortman, Leander, G. Gilbert and Edwin G. Miller, Buffalo, N.Y., U.S., 16th July, 1883; 5 years.

*Claim.*—1st. The combination, with a grease cup, of a central discharge tube or rod extending into the cup, a piston arranged in the cup around the discharge tube or rod, and mechanism whereby the piston is moved toward the discharge opening of the cup and the greased compacted against the discharge tube or rod, substantially as set forth. 2nd. The combination with a grease cup of a piston, and a spring whereby the piston is forced toward the discharge opening of the cup and the lubricating material automatically and gradually expelled from the cup, substantially as set forth. 3rd. The combination, with a grease cup, of a discharge tube or rod extending into the cup, a piston arranged in the cup around the discharge tube or rod, and a screw whereby the piston is moved toward the discharge orifice of the cup, substantially as set forth. 4th. The combination, with a grease cup, of a discharge tube or rod extending into the cup, a piston arranged in the cup around the discharge tube or rod, a spring whereby the piston is automatically moved toward the discharge opening of the cup, and an adjusting device whereby the position of the spring can be regulated, substantially as set forth. 5th. The combination, with a grease cup A, of a discharge tube or rod b, a piston c, an adjusting stem E provided with a stop f, and a spring g and an adjusting device h, substantially as set forth.

**No. 17,312. Improvements in Steam Injectors.** (*Perfectionnements aux Injecteurs de vapeur.*)

The Desmond Injector Company (assignee of John Desmond), Jackson, Mich., U.S., 20th of July, 1883; 5 years.

*Claim.*—1st. The combination of the wall secured by rods and thumb-screws, pipe B, steam spreader S and nut a, substantially as shown and for the purpose described. 2nd. In a steam injector, the pipe B having bushing or walls b, steam spreader S, rod h adjustable in nut a, and transverse bar a', and partitioned chamber A, substantially as shown and for the purpose described. 3rd. The combination of steam spreader S, pipes A, B, D, E and F, funnels C and H, and partitioned chamber A, substantially as shown and for the purpose described. 4th. A steam injector constructed and arranged, substantially as shown and described.

**No. 17,313. Improvements in Wire Fence Machines.** (*Perfectionnements aux machines à clôture en fil de fer.*)

Charles A. Everett, St. John, N.B., (assignee of Joseph Ash, Quincy, Ill., U.S.) 20th July, 1883; 5 years.

*Claim.*—1st. The combination, with the twisting mechanism for twisting the wires between the slats, of the swinging clamp shuttle provided with pivoted spring-actuated jaws between which the wires pass, substantially as described. 2nd. The combination of the rotary drum upon which the fence is wound, with the wire twisting mechanism supporting the wires in pairs and spreading them apart so as to allow the slats or pickets to be inserted between each pair of wires and the swinging shuttle carrying pivoted spring-actuated jaws adapted to adjust the slats and bring the wires together thereon, substantially as described.

**No. 17,314. Improvements in Iron Fences.**  
(*Perfectionnements aux clôtures en fer.*)

Friend F. De Voe, Lima (assignee of Benjamin G. DeVoe), Kenton, Ohio, U.S., 20th July, 1883; 5 years.

*Claim.*—1st. In an iron fence having wrought rods and malleable ornaments, the means for securing the ornament to the picket rod, which consists in casting said ornament with an indentation thereon, as described, and having the metal of the ornament indented or driven into the rod by a punch, substantially as set forth. 2nd. In an iron fence having a channel T-shaped rail punched for the picket rods, an ornament provided with two loops one above and one below the rail, each enclosing the picket rod and extending rearward and downward in parallel lines, the upper loop resting upon the top surface of the rail behind the picket rod, and operating in connection with an angular bearing which supports the front flange of said rail, as a means for allowing the adjustment of the latter to grade, substantially as set forth. 3rd. In an iron fence having punched rails and malleable ornaments, a picket ornament provided with an angular bearing to support the front flange, and a downward and rearward extending loop enclosing the rod above the rail, and resting upon the rear upper surface of the latter behind the rod, whereby an upper and lower bearing of said rail is secured at diagonally opposite points, substantially as set forth. 4th. In an iron fence having punched rails and malleable ornaments, a picket ornament provided with diagonally opposite bearings for the upper and under surface of the rail, which latter is adjustable thereon, and having its enclosing loops extended rearwardly and downwardly in the same direction, substantially as set forth.

**No. 17,315. Under ground conduits for Electric Wires.** (*Conduits souterrains pour les fils électriques.*)

Josiah S. Dubois, Haddonfield and Dillwyn P. Pancoast, Camden, N.J., U.S., 20th July, 1883; 5 years.

*Claim.*—1st. A conduit for electric wires, having tiers of ledges for holding the wires, and an upper platform for the motor, in combination with a motor running on said platform, a carriage for wires running on one of the lower ledges, and a rod D pivotally connecting said motor with said carriage, substantially as set forth. 2nd. A conduit having smooth upper platform C for the motor, and tiers of lower ledges attached to its sides, and provided with vertical partitions for separating the wires, substantially as set forth. 3rd. The lower conduit G, for electric wires, consisting of an open trough provided at the upper edge of each side with an inwardly and an upwardly extending flange, in combination with the upper conduit A, constructed to fit between the inwardly and upwardly extending flanges, substantially as set forth. 4th. The underground conduit for electric wire