

ing an inlet-opening wholly above the drum-shaft, and a movable sliding partition closing the delivery end of the drum, both of said partitions being in close proximity with the respective open ends of the drum, substantially as set forth, whereby sufficient space is left between said partitions and said spokes, so that the cinders will not clog the drum.

### No. 35,911. Attachment for Pumps.

(Appareil pour pompes.)

William Wallace Horr, Lansing, Michigan, U.S.A., 2nd February, 1891; 5 years.

*Claim.*—1st. In a pump, the combination, with the handle, of a sliding extension on the handle carrying the fulcrum, whereby the length of the stroke may be adjusted, substantially as described. 2nd. In a pump, the combination, with the handle connected to the plunger rod, of a sliding extension sleeve upon said handle carrying the fulcrum pin and a pivotal support for said fulcrum pin, substantially as described. 3rd. In a pump, the combination, with the handle B, the sliding extension C, the clamping device, such as the set-screw F, and the pivotal fulcrum support consisting of the rods H, pivoted upon the platform, substantially as described. 4th. In a pump, the combination, with the handle B, of the sliding extension C, having the downwardly projecting lugs D, connected by the cross-bar E, of the fulcrum pin G, pivotally secured in said extension, the pivotal fulcrum support H, pivoted at I, upon the platform, substantially as described. 5th. In a pump, the combination, with the handle having an adjustable fulcrum, of the treadle connected with said handle, substantially as described. 6th. In a pump, the combination, with the handle secured at one end to the plunger rod, of a sliding extension on said handle carrying the fulcrum, and a treadle connected to said sliding extension, substantially as described. 7th. In a pump, the combination with its handle, of the treadle lever J, and connecting rod N, of a raised foot support P, substantially as described. 8th. In a pump, the combination, with its handle, of the treadle lever J, the raised foot-support P, beside said treadle lever, the rod N, connecting said treadle and handle, and the springs O, substantially as described. 9th. In a pump, the combination, with the handle, of the sliding extension on said handle carrying the fulcrum, of the pivotal fulcrum support, the treadle lever J, connected to said extension by the rod N, the springs O, and the raised foot-support, the parts being arranged to operate, substantially as and for the purpose described.

### No. 35,912. Spiral Flue. (Cheminée en spirale.)

Thomas Taylor Moore, Kansas City, Missouri, U.S.A., 2nd February, 1891; 5 years.

*Claim.* 1st. A spiral flue, composed of a suitable bar equal in width to the diameter of the chimney, twisted and formed into the shape of a spiral and fitting tightly in the chimney, thereby forming with the chimney walls two flues which convey the smoke from the stove or furnace, substantially as described. 2nd. In a spiral flue, consisting of a spiral plate extending from the center of the chimney to the sides thereof, composed of metal or terra cotta or other suitable material inclosed in pipe B, thus increasing the draft and length of the chambers, thereby obviating the necessity of building tall smoke-stacks, substantially as described. 3rd. A chimney having its upper or projecting portion provided with pipes B, and spiral bar C, thus increasing the length and efficiency of the flue, substantially as described.

### No. 35,913. Lantern. (Lanterne.)

Archibald Woods Paull, Wheeling, West Virginia, U.S.A., 2nd February, 1891; 5 years.

*Claim.*—1st. As an improvement in lanterns, a globe pivotally connected with the body or frame of the lantern, a base, and a lever pivoted at or near the base and connected with the lower portion of the globe, and adapted to raise the globe and move it laterally away from the burner, substantially as and for the purposes described. 2nd. In a tubular lantern, the combination, with a lantern-frame comprising air-tubes, of a globe-frame pivotally connected with the lantern-frame and having a globe-supporting plate, and a rod journaled in the lantern-tubes and connected with the lantern-frame and adapted to raise the globe and to swing it laterally away from the burner between the air-tubes, substantially as and for the purposes described. 3rd. In a tubular lantern, the combination, with a lantern-frame comprising air-tubes, of a globe-frame pivotally connected with the lantern-frame and having a globe-supporting plate, and a rod journaled in the lantern-tubes and connected with the lantern-frame, and adapted to raise the globe and to swing it laterally away from the burner between the air-tubes, said rod having at its end an operating handle, substantially as and for the purposes described. 4th. In a tubular lantern, the combination, with a globe supporting plate, of a rod connected with the plate and journaled in the tubes of the lantern, and having at one of its ends an operating-lever constructed to swing over one of the tubes to form a lock therefor, substantially as and for the purposes described. 5th. The combination, with the base and the side, and central tubes forming the usual lantern-frame, of a globe-frame or holder having its upper end at all times secured to said frame, and its lower end hinged to the lantern-frame to swing laterally out of position, whereby the globe may be shifted to expose the burner without freeing it at either end from the fixed parts of the lantern, substantially as and for the purposes described. 6th. In a tubular lantern, the combination, with the central air-tube, of a plate loosely mounted and adapted to slide and rock thereon, and having depending arms provided at the base with a globe-supporting plate, substantially as and for the purposes described. 7th. In a tubular lantern, the combination, of the side tubes, a central tube, a laterally and vertically movable globe-supporting frame, comprising a plate mounted on the

central tube and vertically movable thereon, depending arms, and a globe rest or plate, and a lever pivoted to the lantern-frame and connected with the globe-supporting frame, and adapted to raise the globe and move it away from the burner laterally relatively to the plane of the air-tubes, substantially as and for the purposes described.

### No. 35,914. Nut Lock. (Arrête-écrou.)

Julius Caesar Richardson, Jamestown, New York, U.S.A., 2nd February, 1891; 5 years.

*Claim.*—1st. A nut having in one of its sides a V-shaped slit extending across the threads of the central perforation, the leaves between which said slit is formed being bent or twisted relatively to each other, substantially as shown and described. 2nd. A nut having a slit parallel with its top, and dividing it into two leaves, said leaves being slightly bent, twisted or turned relatively to each other, substantially as shown and described. 3rd. A nut, consisting of two perforated screw threaded leaves separated by a slit extending part way through the nut, having the two leaves connected along one edge, said leaves being slightly bent, twisted or turned relatively to each other after being screw-threaded, substantially as described.

### No. 35,915. Nut Lock. (Arrête-écrou.)

Joseph Morrison, Windsor, Ontario, Canada, 2nd February, 1891; 5 years.

*Claim.*—1st. The combination, with a bolt having a thread near its head, and another one near its opposite end, of a nut having an extension fitting said thread near the head, and another nut fitting the thread on the opposite end, substantially as described. 2nd. The combination, with a bolt having a thread near its head, and another one near its opposite end, said threads being cut in opposite directions, of a nut having an extension fitting said thread near the head, and another nut fitting the thread on the opposite end, substantially as described.

### No. 35,916. Grate for Stoves. (Grille de poêle.)

Charles Lyman Beers, Scranton, Pennsylvania, and Norman Conklin, Arnold, Mount Morris, New York, both of U.S.A., 2nd February, 1891; 5 years.

*Claim.*—1st. The combination, with the frame, of a journal seated movably longitudinally in the frame and provided with a circumferential groove or shoulder, the grate-bar detachably connected to the inner end of said journal, and a plate detachably connected to the frame and provided with a tongue entering the groove of the journal, substantially as set forth. 2nd. As an improvement in stove-grates, the combination of the fire-box A, the grate sections detachably supported therein, the water-front B, formed with depending fingers  $b^2$  extended below the outer edge of the front grate section, and the detachable brick support D, formed with depending fingers  $d^2$ , adapted to extend below the outer edge of the rear grate-sections, substantially as and for the purpose described. 3rd. The combination, with the frame A, provided with the fork  $a^1$ , and guiding lugs  $a^2$ ,  $a^2$ , at one side, top and supporting lug  $a^3$ , on the opposite side, of the grate-supporting frames C, Cx, seated in said forks and sustained by the lugs, substantially as shown and described. 4th. The combination, with the fire-box A, of the supplemental back D, formed with the top flange  $d$ , substantially as and for the purpose set forth. 5th. In combination, with the grate-bars, the supporting frame C, consisting of a main plate formed with lugs C', C' notched in their ends, the supplemental plate Cx seated in the notches of said lugs, the journals E, E, passing through said plates and grooved circumferentially in their ends, the wire-tie secured to said ends of the journals, and the gears f, f, on the journals, between the plates, as set forth. 6th. In combination, with the grate-bars, the supporting frame Cx, consisting of a main plate, the grate-bars, with bearings I, I, and lug l, the supplemental plate J, formed with top bearings I', I', ribs i, i, and a notch for the reception of the lug l, the locking pin l' passing through the lug, and the lip l<sup>1</sup> on the main plate over the supplemental plate, as set forth. 7th. The improved grate-bar, composed of a polygonal shaft, and the sections  $o$ ,  $o$ , formed separate from each other, and each of said sections of triangular shape and mounted removably on the aforesaid shaft, and disposed with its teeth at angles intermediate of those of the adjacent section, substantially as described and shown.

### No. 35,917. Harvester. (Moissonneuse.)

Abraham Calvert Scarr, and Joseph William Snell, both of Harrisburg, Ontario, Canada, 2nd February, 1891; 5 years.

*Claim.*—1st. The combination, with the driving wheel of a harvester, of an approximately V-shaped guard secured in front of the said wheel, substantially as and for the purpose set forth. 2nd. The combination with the driving wheel of a harvester, of the V-shaped guard turned up at its apex  $a$ , the said guard being pivotally secured on the bolts C at the rear, and having its apex suitably supported, substantially as set forth.

### No. 35,918. Extension Ladder. (Echelle à rallonge.)

Marshall M. Marsh and James N. Boothe, both of Conceson, Ontario, Canada, 2nd February, 1891; 5 years.

*Claim.*—1st. The tongue and groove joint, formed by the projecting ends of the rounds H, H, fitting into the grooves G, G, and the clamps D, substantially as and for the purposes hereinbefore set forth. 2nd. In an extension ladder, the gate I, with triple prongs, all substantially as and for the purpose hereinbefore set forth.