pipe its stop cock, the air trap and deromoter, as explained, of mechanism, substantially as described, for opening and closing the said cock through the action of the deromoter bell essentially, as set forth. 2nd. The combination, with the water and air induction pipe its stop cock, the air trap and deromoter of the knee lever, the connection and pivoted thereto, the pivoted weighted lever connected, as described, to the connection rod, and the arms a^2 on the valve stem of said cock having studs arranged at opposite sides of the weighted lever, as set forth. 3rd. The combination of the shallow chamber I and vertical space p^1, with the carbureted air receiver and the carburetor arranged therein, as set forth.

No. 20,883. Wall Paper Exhibiter.

(*Montre à Papier de Tenture.*)

Frank T. Forsaith, North Troy, N. Y., U. S., 10th January, 1885; 5 years.

Claim.—A device for exhibiting wall-papers comprising a vertical standard and a rotary polygonal frame mounted thereon, said frame consisting of two end or top, and bottom wheels or rings with vertical bars attached thereto in pairs, and having horizontally-disposed sloping shelves attached externally, substantially as shown and described for the purpose set forth.

No. 20,884. File. (*Lime.*)

Otto W. Loeffer, New York N.Y., U.S., (Assignee of Ludwig Müller, Dresden, Germany,) 15th January, 1885; 5 years.

Claim. 1st. A file consisting of a supporting frame or stock of a series of steel plates or teeth, and means for clamping the same to the supporting frame or stock, substantially as set forth. 2nd. The combination of the supporting frame C having inwardly-projecting flanges, a series of steel plates or teeth having side-recesses, and means for clamping the teeth in the supporting frame, substantially as set forth. 3rd. The combination of the supporting frame C having inwardly-projecting flanges, a series of steel plates or teeth having side recesses, a detachable cheek *d* secured to the outer end, and clamping screw *f* having a cross-head *g* arranged at the opposite end of the frame, substantially as set forth.

No. 20,885. Device for Adjustably Connecting the Bail of a Pail or Pot.

(*Appareil pour Poser l'Anse d'un Seau ou d'une Marmite à volonté.*)

Patrick J. McNally, (Assignee of John F. Ross,) Toronto, Ont., 15th January, 1885; 5 years.

Claim.—1st. A bail B having a loop formed at one or both ends, in combination with the pins C arranged to hold the bail B to the pail or pot A, substantially as and for the purpose specified. 2nd. A pail or pot A provided with an adjustable bail B, as specified, in combination with an indentation *b* made in the body of the pot or bail A, substantially as and for the purpose specified.

No. 20,886. Lumber Drier. (*Sécherie à Bois,*)

David F. Noyes, Lewiston, Me., and Alfred H. Andrews, Chicago, Ill., U.S., 15th January, 1885; 5 years.

Claim.—1st. The herein-described process of treating and seasoning wood which consists in subjecting the wood to a heat sufficient to vaporize the saps, then shutting off the heat supply and suddenly subjecting the external surfaces of the wood to a cooling influence to avoid on such surfaces the formation of a shell which would otherwise prevent the evaporation of the saps, as set forth. 2nd. The herein-described process of treating and seasoning wood consisting in subjecting the wood to a heat sufficient to cause quick vaporization of the saps, then shutting off the heat-supply, suddenly reducing the temperature of the wood at the surface sufficiently to avoid drying at that point and after the internal heat has abated repeating the operations in consecutive order until the saps have been entirely vaporized and passed off at the surface, all substantially as and for the purposes set forth. 3rd. The herein-described process of seasoning wood, which consists in raising the temperature of the wood sufficiently to effect vaporization of the sap by subjecting it to the action of heat by passing steam through pipes in close proximity thereto, then reducing its temperature at the surface by passing cold water through the same series of pipes, substantially as and for the purposes set forth. 4th. As a means for seasoning wood artificially, substantially as described, a series of pipes, a steam generator and a cold water supply, combined with suitable connections, whereby steam or cold water may be projected through said pipes at will or as occasion requires, as set forth. 5th. A lumber-seasoning apparatus provided with a series of courses of pipes supported, one beneath the other in horizontal planes, and connected together in alternate order, substantially as and for the purposes set forth. 6th. A lumber-seasoning apparatus provided with a series of courses of pipes adjustably supported in horizontal planes one beneath the other, and flexibly connected together in alternate order, substantially as and for the purposes set forth. 7th. A lumber-seasoning apparatus provided with a series of courses of rods adjustably connected together in horizontal planes one beneath the other, and having a series of courses of pipes supported by the said series of rods and flexibly connected together in alternate order, substantially as and for the purposes set forth. 8th. A lumber-seasoning apparatus provided with an alternately-connected series of courses of pipes supported one beneath the other in horizontal planes and having perforated pipes arranged underneath the said series of pipes and connecting therewith and with the steam generator, as and for the purposes set forth. 9th. A lumber-seasoning apparatus provided with a group of hydraulic lifting devices of variable sizes, and so arranged with relation to one another that the ones at the centre shall have a lifting capacity equal to about double that of those at the sides of the apparatus, as and for the purposes set forth. 10th. A lumber-seasoning apparatus provided with a group of hydraulic lifting devices of variable sizes, arranged substantially as shown, and so connected with the main supply by means of suitable branch pipes as to have the entire group operated simultaneously and the motor power therefore controlled at one point, as set forth. 11th. A lumber-seasoning apparatus provided with the following elements: a main supply-pipe connecting respectively with the steam and cold water sources and provided with stop cocks, as shown, and a series of courses of pipes, as *b*, suspended one beneath the other in horizontal planes, as set forth, the said courses being connected alternately and the series of courses being connected with the main-supply-pipe at points distant from each other, whereby the steam or water may be rapidly distributed through the entire series of pipes, as specified. 12th. In a lumber-seasoning apparatus, substantially as described, and in combination with a series of pipes arranged in horizontal courses flexibly connected together in alternate order, and supported one beneath the other, as set forth, a stationary frame, a movable frame, and means, substantially as described, for elevating the latter, whereby the said courses of pipes are enabled to be brought in close proximity with the lumber to be seasoned, as set forth. 13th. A lumber-seasoning apparatus provided with the following elements: a main supply-pipe connecting respectively with the steam and cold water sources, the connecting-pipes having suitable stop-cocks, an alternately connected series of courses of pipes suspended in horizontal planes one beneath the other, the first and second courses respectively of the series connecting with said main supply-pipe, perforated pipes arranged beneath the entire series of suspended pipes, and connecting therewith and with the steam generator, the connections having suitable stop-cocks, a group of hydraulic lifting devices of variable sizes connecting with one another and with a single main supply-pipe, a stationary and a movable frame, and all arranged to serve as and for the purposes set forth. 14th. In combination with the perforated pipes M, M^1 and the waste pipes L^2, L^3, the connecting-pipe M^2 leading to the steam generator, and the stop-cocks 4 and 5 for controlling the steam employed in said perforated pipes, as set forth. 15th. In combination with the rods *a*, supported as described, and the pipes *b* supported on said rods and running transversely thereto, a series of stickings, as *c*, supported also by the same rods and arranged parallel with and between each adjacent pair of pipes and adapted to support the lumber to be treated, as and for the purposes set forth.

No. 20,887. Still for Refining Petroleum Oil. (*Alembic pour Repurer le Pétrole.*)

Gilbert R. Merritt, (Assignee of James D. Meigher,) Sarnia, Ont., 15th January, 1885; 5 years.

Claim.—1st. The combination of the shaft or main steam pipe B, with the discharge steam-pipes *c*, *c*, *c*, *c*, and chain D, with the still, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the steam and air pipes E, with the shaft B and outside boilers, substantially as and for the purpose hereinbefore set forth.

No. 20,888. Support for Rock Drills.

(*Support pour Forets de Mine.*)

Charles S. Westbrook, Sprague ville, N. Y., U. S., 16th January, 1885; 5 years.

Claim.—1st. In a support for rock drills, the combination of the cradle or carriage having a fixed guide-groove on one side, a parallel guide-plate fastened adjustably on the opposite side of the cradle, and means, substantially as described, for adjusting the movable guide plate, substantially as and for the purpose set forth. 2nd. The combination, in a support for rock-drills, of a cradle having a fixed guide-groove on one side, and a parallel flanged projection on the opposite side, a guide plate fastened movably upon the flanged projection and a key or wedge inserted between the movable plate and the flange of the fixed projection, substantially as and for the purpose set forth. 3rd. The combination of the saddle, the trunnion bolts, the keys for fixing the same in the sides of the saddle, the collared yoke or fork of the back-leg, the lugs of the side legs having projections fitting into said collars, the plates or washers working upon the trunnion bolts and having inclined planes, arranged as described, and the keys against which said inclined planes bear, substantially as and for the purpose herein shown and set forth. 4th. The combination, with the saddle and tripod, of the plates or washers having inclined planes, arranged as described, and the keys with their appropriate gibs and set-screws, whereby said keys may be locked against the inclines of the washers, substantially as and for the purpose shown and set forth. 5th. The combination of the tubular leg-section having a recess in one side adapted to fit a nut, the solid leg-section sliding in the tubular section, the set screw or bolt and the removable nut inserted into the recess in the tubular section, substantially as and for the purpose herein shown and described.

No. 20,889. Rock Drill. (*Foret de Mine.*)

Charles S. Westbrook, Sprague ville, N.Y., U. S., 19th January, 1885; 5 years.

Claim.—1st. The combination of a cylinder provided with an inlet port, suitable channels or ducts opening near the inlet port and at the ends of the cylinder, and with suitable exhaust ports, with a piston having a recess at its middle adapted to alternately connect the channels or ducts with the inlet port, as and for the purpose shown and set forth. 2nd The combination of a piston having a recess at its middle, with a cylinder provided with an inlet port, provided with channels or ducts adapted to be alternately connected with the inlet port, and opening at the ends of the cylinder, and provided with exhaust ports adapted to be alternately uncovered by the ends of the piston at the end of each stroke, as and for the purpose shown and set forth. 3rd. The combination of a cylinder having an inlet port at or near its middle, and having grooves or channels extending from a distance from the inlet port to the ends of the cylinder, and provided with exhaust ports in the side opposite to the inlet port and the channels, with a piston having a recess at its middle adapted to alternately connect the inner ends of the channels with the inlet port and to alternately uncover the exhaust ports, as and for the purpose shown and set forth. 4th. The combination of a cylinder having an