

No. 17,257. Improvements in Grinding Mills.*(Perfectionnements aux moulins à blé.)*

Melvin B. Church, Grand Rapids, Mich., U.S., 13th July, 1883; 5 years.

Claim.—1st. A lower stone adapted to be driven and formed with its face perfectly plain from centre to skirt, in combination with an upper stone, said stones having a substantial smooth dress and the upper stone dished substantially from eye to skirt in the manner described, whereby the spaces between the stones in zones of a given width on any part from centre to skirt are made of equal capacity, all as set forth. 2nd. The improvement in the art of grinding which consists in feeding the material to be ground between the stones, the lower one revolving and having a plain face, and the upper one having a dished face, the dishing giving equal capacity to zones of equal width at different distances from the centre, in adjusting and regulating the feed to the speed of the stone, keeping them crowded full, in adjusting the speed of the stone to accord with the pressure necessary to the degree of fineness required and in discharging the finely and uniformly ground material by centrifugal force, substantially as described.

No. 17,258. Combined Child's Carriage and Cradle. *(Voiture d'enfant et berceau combinés.)*

John W. Krueger, Cincinnati, Ohio, U.S., 13th July, 1883; 5 years.

Claim.—1st. A combined baby-carriage and swinging cradle consisting of the carriage body A, the front and rear springs N, the side-pieces C bent upward at front and rear, and united near their ends so as to form single stocks D and provided with eyes a, and the swinging body E having the outwardly projecting pins F at front and rear to rest in said eyes, as shown and described. 2nd. In a combined baby-carriage and cradle, the fastening device consisting of the cross girt G, locking-screw c, and the plate e, having the recess d, and secured to the carriage-body B, substantially as shown and described.

No. 17,259. Dryer and Cooler for Grain, &c.*(Schoir et rafraichissoir à grain, etc.)*

Frederick H. C. Mey, Buffalo, N.Y., U.S., 16th June, 1883; 5 years

Claim.—1st. A drier or cooler having a drying surface consisting of an endless apron composed of properly disposed connected links and a series of transverse horizontal slats, said apron being constructed to operate within a closed compartment into which the drying or cooling medium is forced by suitable mechanism, substantially as specified. 2nd. An endless apron for a drier and cooler consisting of a series of carrying-links, a series of links connecting said carrying-links and a series of slats, said carrying-links being supported upon an anti-friction device, substantially in the manner as and for the purpose mentioned. 3rd. In driers and coolers, a compartment having its side-walls downwardly bent into the shape of the letter U inverted, in combination with an endless drying surface composed of a series of slats having upturned ends entering the space formed by the downwardly bent sides, substantially as and for the purpose stated. 4th. In drying-aprons for grain and the like, the carrying-links Q, consisting of the perforated head Q₁, body proper and the tails b b₁, said links being adapted for operation upon a carrier, substantially in the manner as and for the object specified. 5th. In drying apparatus, an endless apron consisting essentially of a series of carrier-links Q, a series of connecting-links Q₁ having plates R, another series connecting-links Q₁ also provided with plates R, and a series of slats P fixed to the plates of the links Q₁, substantially as and for the object stated. 6th. The combination, with the compartment E, of the supports G having gudgeons H and carrying-wheels J, of the endless apron having carrying-links the bases of which pass over the carrying-wheels, as described and stated.

No. 17,260. Improvements in Washing Machines. *(Perfectionnements dans les laveuses mécaniques.)*

Melvin Huffman, Toronto, Ont., 13th July, 1883; 5 years.

Claim.—1st. In a steam washing machine having a boiler A with a cover B, the combination of a cylinder D, constructed as shown and described, and operating as set forth. 2nd. In a steam washing machine having a boiler A with a cover B, the combination of a reservoir C, constructed as shown and described and operating as set forth. 3rd. In combination the boiler A, cover B, reservoir C and cylinder D, constructed substantially as shown and described and for the purposes set forth.

No. 17,261. Hydro-Carbon Vapour Generators and Burners. *(Générateurs et foyers à gaz d'hydrocarbures.)*

Israel R. Blumenberg, Washington, D. C., and Henry W. Whiting, Philadelphia, Pa., U.S., 13th July, 1883; 5 years.

Claim.—1st. The globulous chamber entered by induction pipes and having a small outlet within the bulbous base forming a part of, and in combination with the conical cylinder b and burner-tip c, the whole forming a vapour generator and burner substantially as shown and described. 2nd. The flame-expander k provided with wings m spirally adjusted thereon, in combination with the vapor generator and burner B, substantially as shown and described. 3rd. The diaphragm h having a passage h₁, in combination with the vapour generator and burner B, substantially as shown and described. 4th. The combination of globulous chamber a, orifice a₂, chamber b, in a device for generating hydro-carbons, substantially as shown and described. 5th. The combination of chamber b and diaphragm h, in a device for generating and burning hydro-carbon vapour, substantially as shown and described. 6th. The combination of globulous chamber a, orifice a₂, chamber b and diaphragm h, in a device for generating hydro-carbon vapour, substantially as shown and described. 7th. The diaphragm h having a vapour passage h₁, for use in a device for generating and

burning hydro-carbons, substantially as shown and described. 8th. Hydro-carbon generator and burner consisting of a globulous chamber within a bulbous base, a conic cylindrical chamber, a burner-tip having perforations for the exit of the vapour, and induction steam and oil-pipes, substantially as shown and described. 9th. The combination of globulous chamber a, orifice a₂, chamber b and burner tip, in a device for generating and burning hydro-carbons, substantially as shown and described. 10th. The combination of the globulous chamber a, orifice a₂, chamber b, diaphragm h, passage h₁ and burner tip, substantially as shown and described. 11th. The combination of the globulous chamber a, induction steam and oil pipes d and e, chamber b, diaphragm h, vapor passage h₁ and burner tip c substantially as shown and described. 12th. The combination of the globulous chamber a, induction steam pipes d and oil pipes e, orifice a₂, chamber b and burner tip c, substantially as shown and described. 13th. In combination, the induction steam pipes d, oil pipes e, air blast o, globulous chamber a, orifice a₂, chamber b, diaphragm h, passage h₁ and burner tip, in a device for generating and burning hydro-carbon vapours, substantially as shown and described. 14th. In combination, a device for generating and burning hydro-carbons and a flame expander secured to the end thereof substantially as shown and described. 15th. In combination, adjustable burner tip c and a flame expander, in a device for generating and burning hydro-carbon vapour, substantially as shown and described. 16th. In combination, the burner tip c having perforations n, at the end thereof, as shown and a flame expander, as shown, in a device for generating and burning hydro-carbons, substantially as shown and described. 17th. In combination, the flame expander burner tip c, perforations n, diaphragm h, vapour passage h₁, chamber b, orifice a₂, chamber a₁, induction pipes d and e and air blast pipe o, in a device for generating and burning hydro-carbon vapours, substantially as shown and described. 18th. In combination, the flame expander-burner tip c, perforations n, chamber b, orifice a₂, chamber a₁, induction steam and oil pipes d and e and air blast pipe o, in a device for generating and burning hydro-carbon vapour, substantially as shown and described. 19th. In combination, the flame expander-burner tip c, perforations n, mingling chambers b and a₁, orifice a₂ and induction steam and oil pipes d e, in a device for generating and burning hydro-carbons, substantially as shown and described.

No. 17,262. Improvements in Fence Posts.*(Perfectionnements aux pieux des clôtures.)*

Alexander A. Arthur, Eben F. Spaulding, Boston, Mass., and William Davison, Hoboken, N.J., U.S., 13th July, 1883; 5 years.

Claim.—1st. A fence post made of angle or T-iron bar and having two or more tapered prongs formed by splitting the bar along the angle or angles, and bending the split prongs, all as set forth and for the purposes described. 2nd. A fence post formed with feet of two or more tapered prongs, one or more of which are armed with lateral barbs, all as set forth and for the purposes described. 3rd. In combination with a fence post made of angle or T-iron, the fastenings E F for wire strands, substantially as described.

No. 17,263. Improvements in Railroad Brakes. *(Perfectionnements aux freins de railroUTES.)*

Dolphus Torrey, New York, N.Y., U.S., 13th July 1883; 5 years,

Claim.—1st. The automatic brake apparatus, substantially as described. 2nd. In a brake either actuated or operated by stress from the draw-bar or buffers, the combination of the receiving and working levers 3 4 swinging in parallel planes, substantially as described. 3rd. The combination of the adjusting-bar lying in the line of a chord of the arc described, by the working lever, with the working lever, substantially as described. 4th. The adjusting-bar 6 supported by pins passing through inclined slots in the said bar, whereby it is made to rise or fall whenever it is moved longitudinally. 5th. The combination of a receiving lever with the draw-bar or buffer, and a spring arranged so that while the compression of the draw-bar or buffer is accompanied with a firm engagement with the lever, its pulling out has no effect upon it other than to correct its adjustment. 6th. The combination of the lock bar 7 with the adjusting bar 6, substantially as and for the purpose set forth. 7th. The combination with the receiving lever 3, of the working lever 4, adjusting bar 6 and hangers 8, substantially as set forth. 8th. The combination, with the receiving lever 3, of the working lever 4, and a connection with the brake apparatus attached to the working lever at a point in its length approximately close to where it receives the stress from the receiving lever. 9th. The combination of the adjusting bar 6 with the pivoted lever 16, substantially as and for the purpose set forth. 10th. The combination of the lever 16 and latch 19, for governing or determining the action of a momentum brake apparatus, substantially as set forth. 11th. The combination, with the lever 16, of the latch 19 and catch 20, substantially as set forth. 12th. The combination of the emergency pull chain coupling with a momentum brake apparatus, for causing an automatic application of the brakes to a car detached from a train while under motion, substantially as explained. 13th. A take-up for railroad brakes in which the two ends of the severed line of chain are attached respectively to the two parts of a rotating clutch so related that, when the stress is being transmitted to the brakes, the parts of the clutch rotate together, and when the stress is discontinued the same parts of the clutch rotate backward together until the working part is stopped, after which the receiving part may continue to rotate until it draws the line taut by which it is pulled into action. 14th. In a rotating take-up, a stop disk having a ratchet for engaging with a pawl and a slot recess, or projections for engaging with the working pulley of the clutch, for determining the amount of slack which is allowed when the shoes are off. 15th. The combination of the clutch and stop disk with clutch pulleys uniting two parts of a chain for the purpose of taking up the slack therein, substantially as set forth. 16th. The combination of the clutch 111 112 and disk 113, with the shaft 125, substantially as and for the purpose set forth. 17th. The combination of the clutch 111 112, disk 113, shaft 125 and frame 124, substantially as and for the purpose set forth. 18th. The combination of the receiving and working levers having two sets of lugs for effecting the alternate engagements of said levers by the