worked by means of fixed or movable obstructions or agitators, while the said cream in the centrifugal apparatus remains still, as a layer floating on the milk from which it is separated, and by means of pipes or gutters removing the butter in proportion as it is formed or letting it pass away over the lower border of the centrifugal apparatus. 2nd. A churn consisting of a revolving vessel A open at the lower end, and which at the top has a device for letting in the milk, the said vessel having inside a horizontal or inclined partition S causing all the cream to pass over the border of the partition, and at the bottom provided with a crowning or depression U surrounding the mouth of the vessel for receiving the ready made butter produced by the beating or dividing of the cream layer by wheels or drums, with spokes or projections in the circumference, or by means of fixed combs introduced in the layer of cream, the butter being led off from the receptacle in the said crowning U by means of one or more adjustable pipes or gutters M entering into the same. 3rd. In the apparatus indicated in the second claim, a device for loading off the butter consisting in forming the mouth of the revolving vessel by a crowning U, inside of which the produced butter sinking down over the border of the vessel is collected, and by the pressure delivered from the attaching milk which is enabled to return into the vessel through holes, and inside of this crowning enters the mouths of a pipe or the end of a gutter M directed against the rotary direction of the butter layer, and which can be introduced more or less therein, in order that the butter may be led off to a receptacle through the pipe or the gutter. 4th. In a churn of the kind or class herein described, the arrangement of the wheels or drums to be introduced in the revolving cream layer, consisting therein that the wheels are at their circumference provided with axial spokes, cones, or pyramids, arranged in an inclined or a helical position, or consisting of concentrically rifled cylinders or of fixed combs provided with points. 5th. In an apparatus for the churning of butter as above described, a device consisting of one or more posts introduced in the centrifugal apparatus, and provided with short pipes, the ends of which are directed against and introduced in the revolving layer of cream, while their opposite ends are turned somewhat off the same layer, with the view of causing the cream to pass through the pipes and to come in contact with the cream *layer behind the pipes*. 6th. The modified arrangement of the apparatus above described, consisting of a vessel open at the top, with the view of introducing the revolving or fixed obstacles, and that the bottom of the vessel has a number of holes or openings V through which the butter can sink down in order to get into the compartment enclosed by the crowning U. 7th. In the modified arrangement described in the sixth claim, of an apparatus for the churning of butter, the arrangement for introducing the fixed or movable obstruction consisting in fixing the post of the fixed obstruction on the shaft of the movable obstruction in one end of a lever D, pivoted at a point on the envelope *b*, or casing of the revolving vessel, while the opposite end of the lever can be fixed in the desired position by the handle being made in the shape of a nut, and can be screwed inwards against or outwards from a bow shaped projection on the casing of the machine. 8th. In a churn, a device for regulating the introduction of the butter delivery pipe into the layer of butter, consisting in bending the point of the conical delivery pipe sideways, and fixing it in the one end of a lever pivoted at the same end, the other end of which lever can be fixed by means of a handle, as above described.

No. 29,608. Manufacture of Scrubbing Brushes. (*Fabrication des brosses à frotter*)

Emil C. Boeckh and Charles Boeckh, Jr., Toronto, Ont., 1st August, 1888, 5 years.

Claim.—A brush having a recess formed in its back, immediately above the point where the bristles or other fibre are connected, in combination with a strip fitted and fixed into the said recess, substantially as and for the purpose specified.

No. 29,609. Apparatus for Extracting Stumps. (*Appareil à arracher les souches*)

Lemuel Lafo, Pittsburgh, N.H., U.S., 1st August, 1888, 5 years.

Claim.—A metallic stump-extractor frame, formed of two integral arms carrying a windlass near their front ends and provided at the curve *a* with an attaching device for a chain, in combination with ratchets pawls and levers, all being constructed substantially as and for the purposes specified.

No. 29,610. Car-Coupler. (*Attelage de chars.*)

Frank A. Fox, Henry H. Gordon and Charles Bishop, New York, N. Y., U.S., 1st August, 1888, 5 years.

Claim.—1st. The combination of top and bottom bars *a*, *a*, and of perforated cross pieces b, b^1, the cross piece b having lateral extension b^2, with the draw head *c*, sliding bolt *e* and spring *f*, the sliding bolt *e* having shoulder e^1, and with the operating lever *g* pivoted to extension b^2 and having a forked end g^1 that engages bolt *e*, substantially as specified. 2nd. The combination of draw bar A, with a sliding bolt, spring and operating lever, and with a pivoted draw head *c* having a corrugated face c^6, substantially as specified. 3rd. The combination of draw bar A having the cross piece b that is provided with lateral extension b^2, and of sliding bolt, spring and operating lever, with a pivoted draw head *c* having lateral hook-shaped extension c^1 that is adapted to engage the extension b^2, substantially as specified. 4th. The combination of a draw bar A, with a sliding bolt, spring and operating lever, and with a pivoted draw head *c* having a perforation for engagement with the sliding bolt, the edge of the draw head being straight at one side of the perforation, and being curved and hook-shaped at the other side of the perforation, to limit the motion of the draw head in both directions, substantially as specified. 5th. The combination of a draw-bar A having a pair of jaws, with a hook-shaped draw-head *c* having slotted shank *e* that is pivoted between the said jaws, and with a spring bolt *i* having a bevelled edge, substantially as specified.

No. 29,611. Nut Lock. (*Arrête-écrou.*)

Robert W. Burton and William C. Harless, New River, Va., U.S. 1st August, 1888, 5 years.

Claim.—In a nut lock, the combination, with the bolts, washers surrounding the bolts, and nuts screwed on the bolts and bearing on the washers, of the locking plate, comprising the arm or arms K arranged under the nuts, and provided with slots G embracing the said washers, the upturned ears E, E at the outer ends of the said arm, having ratchet teeth on their inner edges, and the spring D, whereby the ratchet teeth on the said ears are normally held in engagement with the angles of the nuts, substantially as specified.

No. 29,612. Stove Grate. (*Grille de poêle.*)

Leroy D. Webber, (assignee of Stebbins S. Webber), La Porte, Ind., U.S., 1st August, 1888; 5 years.

Claim.—1st. The two-part grate, one part movable upon the other, each provided with two series of draft openings so placed relatively to each other that the opening of the outside series closes the inside series, and the opening of the inside series closes the outside series, substantially as specified. 2nd. In combination with the two-part grate having an outside draft, and a central draft so constructed that when the outer draft is opened the inner draft is closed, substantially as specified, the central deflecting plate for deflecting the central draft to cause the currents to impinge against the sides of the stove, substantially as and for the purpose set forth.

No. 29,613. Machine for Making Rolled Forging. (*Machine à laminer.*)

Charles E. Gould, Thurston A. Gould and Frank H. Cook, Leominster, Mass., U.S., 1st August, 1888; 5 years.

Claim.—1st. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit: a die having a working face which is convex in longitudinal section, a companion die having a working face which is concave in longitudinal section, means for supporting said dies, and means for causing one of the dies to move longitudinally past the other through the arc of a circle, their working faces being adjacent as they pass, substantially as set forth. 2nd. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit: a die having a working face which is convex in longitudinal section, a companion die having a working face which is concave in longitudinal section, means for supporting said dies, and means for causing them to move longitudinally and simultaneously past each other in opposite directions through arcs of different circles respectively, their working faces being adjacent as they pass, substantially as described. 3rd. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit a die having a working face which is convex in longitudinal section, a companion die having a working face which is concave in longitudinal section, means for supporting said dies, means for causing one of said dies to move longitudinally past the other through the arc of a circle, the working faces of the dies being adjacent as they pass, and a rest for the rod or ingot, substantially as set forth. 4th. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit: a die having a working face which is convex in longitudinal section, a companion die having a working face which is concave in longitudinal section, means for supporting said dies, means for causing the dies to move longitudinally and simultaneously past each other in opposite directions through arcs of different circles respectively, the working faces of the dies being adjacent as they pass, and a rest for the rod or ingot, substantially as described. 5th. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit: a disk having a chamber opening outward through one of its sides, and provided within said chamber with an inwardly facing die having a working face which is concave in longitudinal section, a disk disposed within said chamber and provided with an outwardly facing die having a working face which is convex in longitudinal section, and means for rotating one of said disks and carrying its die longitudinally past the companion die, said dies standing at right angles to the axis of the rotating disk and being so arranged that their working faces will be adjacent as they pass, substantially as set forth. 6th. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit: a disk having a chamber opening outward through one of its sides, and provided within said chamber with an inwardly facing die having a working face which is concave in longitudinal section, a disk disposed within said chamber and provided with an outwardly facing die having a working face which is convex in longitudinal section, and means for rotating said disks simultaneously in opposite directions to carry the dies longitudinally past each other, said dies standing at right angles to the axis of the rotating disk, and being so arranged that their working faces will be adjacent as they pass, substantially as described. 7th. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit: a die having a working face which is convex in longitudinal section, a companion die having a working face which is concave in longitudinal section, means for supporting said dies, means for causing one of the dies to move longitudinally past the other through the arc of a circle, their working faces being adjacent as they pass, and means for rotating the rod or ingot, substantially as set forth. 8th. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit: a die having a working face which is convex in longitudinal section, a companion die having a working face which is concave in longitudinal section, means for supporting said dies, means for causing them to move longitudinally and simultaneously past each other in opposite directions through arcs of different circles respectively, their working faces being adjacent as they pass, and means for rotating the rod or ingot, substantially as described. 9th. In a machine for making rolled forgings, the combination of the following instrumentalities, to wit: a die having a working face which is convex in longitudinal section, a companion die having a working face which is concave in longitudinal section, means for supporting said dies, means for causing one of said dies