

of the bearing of the knee, as and for the purpose shown and set forth.

No. 26,874. Churn. (*Baratte.*)

Stephen F. Keirstead, St. John, N.B., 5th June, 1887; 5 years

Claim.—1st. The combination of the creamer and the cream preserver by the coupling at G and E, with the rubber tubing B and the clasp A, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the creamer and the cream preserver coupled at G and E, with the rubber tubing B and clasp A, of the hooks H, H', cords J, J', and rings C, C, substantially as and for the purpose hereinbefore set forth.

No. 26,875. Process of Evaporating Sugar Solutions and other Liquids, and Apparatus for Carrying on the same. (*Procédé d'évaporation des solutions saccharines et autres liquides, et appareil pour cet objet.*)

Samuel M. Lillie, Philadelphia, Penn., U.S., 5th June, 1887; 5 years.

Claim.—1st. In an apparatus for evaporating liquids, a series of vertical, or approximately vertical, surfaces, heated by steam or otherwise, means for delivering the liquid to be evaporated upon each surface at or near the top, and means for maintaining a vacuum, more or less perfect, in the spaces in which the surfaces are exposed, substantially as specified. 2nd. The within described apparatus for evaporating liquids, consisting of a battery of vertical tubes, surrounded by a heating chamber, means for delivering the liquid to be evaporated upon the interior surfaces of each tube, near its upper end, for the escape of the vapors of evaporation from the end avenues, for the escape of the vapors of evaporation from the interior of the tubes, and means for maintaining a more or less perfect vacuum in the interiors of the tubes, substantially as specified. 3rd. In an apparatus for the evaporation of liquids, the combination of a battery of vertical tubes extending through a heating chamber E, a chamber G above the heating chamber for receiving the liquid that is to be evaporated, channels leading from the chamber G into the interior of the tubes and adapted to deliver the liquid over the inner surfaces of the same, and means for maintaining a more or less perfect vacuum in the tubes, substantially as specified. 4th. In an apparatus for evaporating liquids, the combination of the heating chamber containing the battery of tubes b, chamber G communicating with the interiors of the tubes, as described, chamber P and conduit Y connecting the chamber or well P with a suitable vacuum-inducing apparatus, substantially as described. 5th. In an apparatus for evaporating liquids, the combination of a battery of tubes contained in a heating chamber, means for delivering a liquid upon the interior surfaces of the tubes near their upper ends, well P for receiving the vapors and unevaporated liquid from the lower ends of the tubes, and means for maintaining a more or less perfect vacuum in the well P, substantially as specified. 6th. In an evaporating apparatus, constructed and operating, as set forth, the combination of a battery of tubes b contained in a suitable heating chamber, well P, with which the lower ends of the tubes communicate, and into which the unevaporated liquid from the same flows, and a pump or equivalent means for returning liquid from the well P onto the interior surfaces of the tubes, substantially as specified. 7th. In an evaporating apparatus, the combination of the heating chamber E, battery of tubes b, dome D communicating with the tubes b at their upper extremities, means for maintaining a more or less perfect vacuum in the dome D, means for distributing a liquid over the interior surfaces of the tubes, and well P for receiving the liquid that may flow from the lower ends of the tubes b, substantially as specified. 8th. The combination, in an evaporating apparatus, of the chamber E, dome D, well P, tubes b extending through chamber E and communicating above with the dome D, and below with the well P, means for delivering a liquid upon the interior surfaces of each tube, near the top, and suitable vacuum apparatus communicating with dome D and with the well P, and adapted to maintain a partial vacuum in both, substantially as specified. 9th. The combination, in an evaporating apparatus, of the heating chamber E, chamber G, dome D, well P, tubes b extending through the heating chamber, and d communicating above and below respectively with the dome D and well P, suitable channels leading from the chamber G into the interior of each tube, and means for introducing the liquid to be evaporated into the chamber G, substantially as specified. 10th. The combination, in an evaporating apparatus, of the chamber E, dome D, chamber G, well P, tubes b, tubes c extending from dome D into the upper ends of tubes b, and channels in walls of tubes c, between G and the interiors of tubes b, substantially as specified. 11th. In an evaporating apparatus, constructed substantially as described, the combination, with the chamber G and well P, of a pump M, or other suitable means for returning liquid from the well P into the chamber G, substantially as described. 12th. In an evaporating apparatus, the combination of the heating chamber E, dome D, well P, tubes b extending through the heating chamber, and communicating above and below respectively with the dome D and well P, and means for delivering the liquid to be evaporated onto the interior surfaces of the tubes, substantially as specified. 13th. In an evaporating apparatus, the combination of the heating chamber E, dome D, well P, tubes b in the heating chamber, and communicating above and below respectively with the dome D and well P, and a pump with proper connection or other suitable means for delivering liquid from the well P upon the interior surfaces of the tubes, substantially as specified.

No. 26,876. Steel Horse Check-Rein and Nose Extender. (*Fausse-Rênes.*)

Thomas J. Quinn and Donald McLellan, Woodstock, Ont., 5th June, 1887; 5 years.

Claim.—The combination of the longer arm or check-rein B, A, and the shorter arm or check piece A, C, adjusted by means of the brace D, E, and its sliding spring, and fastened to the bit by the

spring safety lock in the manner described and substantially as and for the purpose hereinbefore set forth.

No. 26,877. Manufacture of Blood Albumen.

(*Fabrication de l'albumine sanguine.*)

Thorsten Nordenfelt, Westminster, Eng., 5th June, 1887; 5 years.

Claim.—1st. My improvements in the manufacture of blood albumen, consisting in separating by stirring or whisking the fibrine from blood, then adding sugar and a volatile oil, afterwards separating the heavier particles by centrifugal action, and finally evaporating and drying the albumen, substantially as described. 2nd. My improvement in the manufacture of blood albumen, by the addition thereto whilst under process of manufacture of sugar and a volatile oil, or either of them, substantially as described. 3rd. My improvement in the manufacture of blood albumen, consisting in the separation from serum of blood corpuscles by passing the material through a centrifugal machine, substantially as described.

No. 26,878. Electric Conductor.

(*Conducteur d'électricité.*)

Henry F. Campbell, Boston, Mass., U.S., 6th June, 1887; 5 years.

Claim.—1st. An electric stranded conductor, composed of two or more strands, strips, tapes or wires of iron twisted together, as and for the purpose described. 2nd. An electric stranded conductor, composed of two or more strands, strips, tapes, or wires of annealed iron twisted together, as and for the purpose described. 3rd. An electric stranded conductor, composed of two or more strands, strips, tapes, or wires of iron twisted together, and provided with a covering of insulating material, substantially as described. 4th. An electric stranded conductor, composed of two or more independent stranded conductors twisted together, each stranded conductor being composed of two or more strands, strips, tapes or wires of iron twisted together, substantially as described. 5th. A cable, composed of two or more independent stranded conductors grouped together and separated by insulation, each stranded conductor being composed of two or more strands, strips, tapes, or wires of iron twisted together, the said stranded conductors grouped together, being covered with insulation, substantially as described.

No. 26,879. Dental Disk. (*Disc dentaire.*)

Benjamin H. Teague, Aiken, S.C., U.S., 6th June, 1887; 5 years.

Claim.—A dental polishing tool, consisting of a concavo-convex disk of sand or emery, paper, or emery or orocous cloth, coated upon its back with shellac varnish and a solution of sandarac, as and for the purpose described.

No. 26,880. Surgeon's Combined Chair and Table. (*Fauteuil-table de chirurgie.*)

Albert J. Marston, Worcester, Mass., U.S., 6th June, 1887; 5 years.

Claim.—1st. The back frame e, bail-brace i hinged to the upper end of said frame, frame f having one or more supporting shoulders upon the upper side thereof to receive the bottom of said bail-brace i, and an adjustable device arranged on one of the legs of frame f for holding the bail-brace in said notches, comprising a hinged lever provided with hooks or projections upon the upper side thereof, adapted to engage with and hold the bottom of the brace, also provided with means for forcing said lever towards the holding notches aforesaid, and means whereby it may be forced back therefrom, in combination with frame g hinged at the upper end to the upper end of frame e, frame h hinged to the lower end of frame g, and adjustable means connected with the outer end of frame h, and the bottom of frame e for supporting said outer end of frame h, substantially as shown and specified. 2nd. An adjustable device arranged on one of the legs of the back supporting frame f for holding the bottom of the bail-brace in the notches formed in the top side of said frame, comprising a hinged lever provided with hooks or projections upon the top side thereof, adapted to engage with and hold said bottom of the bail-brace, means for forcing said lever towards the notches and bail-brace, and means whereby it may be forced back therefrom to release said bail-brace, substantially as shown and specified. 3rd. In a surgeon's combined operating chair and table, the extension frame y provided with the projecting rod or bar γ upon the under side thereof, fork-shaped at its extremity, also provided with two or more dowels upon its abutting edge, in combination with the frame g provided with the openings γ in the end and side edges thereof, also with the holding loops γ , p₃, and the fastening screw and nut γ , γ , or their equivalents, whereby said extension frame may be fastened upon the end or one side of frame g, substantially as and for the purposes set forth. 4th. In a surgeon's combined operating chair and table, the extension supporting brace k hinged at the bottom to the lower end of the back-supporting frame e, and provided with the extension bar κ fitted to slide longitudinally in the central part of said brace, also provided with the set screw u and nut v or their equivalents, for fastening the aforesaid rod or bar after adjustment to the body of the brace, in combination with the frames e, f, g, h, bail-braces i, j, and means for fastening the upper end of said brace k to the front end of frame h, said frames being hinged together, and the bail-braces hinged to the frames e and g respectively, the latter also being supported and held in notches or shoulders formed in the top surfaces of the frames e and f, substantially as shown and specified. 5th. Means for fastening the hinged frames g h to frame e, when the several parts are converted into a chair, consisting of the hook w hinged to the bottom of frame g, or near where the frames g, h are hinged together, and plate x fastened to the cross piece n of frame e, having a projection above said cross-piece for the hook w to engage with, and projecting below the cross-piece to form a stop for the hinged brace k to strike against when detached and swung down, in combination with the frames e, f, g, h, and bail-braces i, j, all constructed, arranged and hinged substantially as shown and specified. 6th. The combination of the frame g, provided with guiding and holding parts z², with the slide bars z, z,