

of the chamber and provided with legs, and a rod connecting the two, the loop in said crank shaft being longer than the loop of the crank axle, whereby the crank shaft is caused to oscillate, substantially as described. 2nd. A toy horse adapted to be straddled and ridden by children, comprising two similar portions having in their meeting faces concavities which form an interior chamber to receive and protect the operative mechanism, a crank axle mounted at the rear of the chamber and provided with wheels, a crank shaft mounted at the front of the chamber and provided with a rod connecting the two, and washers placed at each side of the loop of said crank axle, whereby the connecting is prevented from slipping and the device from becoming inoperative, substantially as described.

#### No. 29,843. Pump Handle. (*Brumule de pompe.*)

David Plews, Toronto, Ont., 11th September, 1888, 5 years.

*Claim.*—The combination, with a pump handle, lug, or lug, with one of two open sides, substantially as and for the purpose hereinbefore set forth.

#### No. 29,844. Car-Coupling. (*Attelage de chars.*)

Thomas W. Patterson, Victoria, B.C., 11th September, 1888, 5 years.

*Claim.*—The combination of the sliding block D and pawl or catch C, substantially as and for the purpose hereinbefore set forth.

#### No. 29,845. Water Velocipede.

(*Velocipède marin.*)

James W. Dolliver, Everett, Mass., U.S., 11th September, 1888, 5 years.

*Claim.*—1st. The improved water velocipede having the uprights d, the intermediate posts g provided with sockets or catches, the gates i pivoted to the uprights d and adapted to engage the sockets of the posts g, and the fixed guards attached to the uprights d, as set forth. 2nd. The combination, with a water velocipede, constructed substantially as described, of a series of uprights attached to the hulls of the velocipede, pivoted gates, and front and back guards supported by said uprights, the whole forming a continuous guard or enclosure surrounding the space on the deck on which the passenger's seats are placed, and an awning supported by the corner uprights, whereby said space is covered, as set forth.

#### No. 29,846. Truss. (*Bandage herniaire.*)

Orville M. Robinson, Bath, N. Y., U.S., 11th September, 1888, 5 years.

*Claim.*—The combination of the spring body-band A having its end formed to receive the spring C upon it, and provided with the perforated projection, with the set screw, and the coiled spring C having the pad or button secured to one end, and having its inner bent end extend into the recess in the projection, substantially as shown.

#### No. 29,847. Folding Table. (*Table pliante.*)

John T. Bon, Syracuse, N.Y., U.S., 11th September, 1888, 5 years.

*Claim.*—1st. In a folding table, the combination, with the top A, apertured bracket K, two sets of hinged legs B, transverse recesses or sockets F, and rotating rods G, of braces I, longitudinal, closed slots J, threaded bolt M, and a tightening nut N, substantially as and for the purpose hereinbefore set forth. 2nd. In a folding table, the combination, with the top A, cross pieces B, legs D, and boards E, of rotating rods G, and braces I, substantially as and for the purpose hereinbefore set forth.

#### No. 29,848. Concrete Pavement.

(*Pavage en béton.*)

George A. Bayard, Bellefonte, Penn., U.S., 11th September, 1888, 5 years.

*Claim.*—The improved concrete pavement herein described, consisting of a foundation layer of coarse broken stone and ashes or pebbles, a second layer of broken stone, cinders, pebbles, and tar, a third layer of sand, small pebbles and coal tar, resin and unlaked lime, and a surface coating of cement, and sand, as described and specified.

#### No. 29,849. Mode of Taking up the Slack in and Equalizing the Tension of the Band, Belt or Cord, Driving Spinning or Twisting Spindles, and the Banding of the same.

(*Manière de tirer le mou et égaliser la tension des courroies ou cordes plates mettre en mouvement les broches à filer ou retordre, et les liser ensemble.*)

Charles W. Jones, London, Ont., 11th September, 1888, 5 years.

*Claim.*—1st. In a spinning or twisting machine, the tension device F, in combination with the endless band D, substantially as arranged and described for the purpose set forth. 2nd. In a spinning or twisting machine, the combination of the band D, with the tension devices E, E and F, substantially as set forth. 3rd. In a spinning or twisting machine provided with spindles B, and cylinder or drum C, the combination of the tension devices E, E, with the band D, substantially as set forth. 4th. In a spinning or twisting machine, the frame A having spindles B, and cylinder or drum C, the combination of the band D, with the tension devices E and F, all substantially as arranged and described for the purpose set forth.

#### No. 29,850. Process of Making Alkaline Silicates. (*Procédé de production des silicates alcalins.*)

Adolf Kayser, Horace Williams and Albert B. Young, Buffalo, N. Y., U.S., 12th September, 1888, 5 years.

*Claim.*—The herein described method of producing the silicate of sodium or potassium from the chlorides thereof, which consists in mixing the chloride with silica, melting the mixture into cakes or bricks, and heating the same in a converter by means of highly heated gases containing steam passed through the converter, substantially as set forth.

#### No. 29,851. Process of Making Alkaline Silicates and Carbonates. (*Procédé de production de silicates et carbonates alcalins.*)

Adolf Kayser, Horace Williams and Albert B. Young, Buffalo, N. Y., U.S., 12th September, 1888, 5 years.

*Claim.*—1st. The herein described method of treating chloride of sodium or potassium, whereby the chloride is converted into oxide and muriatic acid gas is generated, which consists in mixing the chloride with clay, and heating the mixture in a converter directly by passing highly heated gases containing steam through the converter, substantially as set forth. 2nd. The herein described method of obtaining the oxide of sodium or potassium from the chloride thereof, which consists in mixing the chloride with clay, heating the mixture in a converter directly by passing highly heated gases containing steam through the converter, smelting the converted material together with an alkali, and then extracting the sodium or potassium combinations by lixiviation, substantially as set forth.

#### No. 29,852. Apparatus for Propelling Vehicles. (*Appareil à propulser les voitures.*)

Alexander C. Mathier, Montreal, Que., 12th September, 1888, 5 years.

*Claim.*—In giving motion to a vehicle, the combination, with the leg C F, and the vehicle V, of a lever V P, substantially as and for the purpose hereinbefore set forth.

#### No. 29,853. Wooden Pail, Tub, etc.

(*Seau, cuvette, etc., de bois.*)

The E. B. Eddy Manufacturing Company, assignee of George H. Millen, Hull, Que., 12th September, 1888, 5 years.

*Claim.*—A pail or tub having staves grooved peripherally on the outside, and bound by undulated wire B strained lengthwise in said grooves, and the ends of the wire locked together when so strained, whereby the grooves will prevent the wire rings falling off when shrinking occurs, and the undulations of the wire permit of contraction and expansion as set forth.

#### No. 29,854. Car-Coupler. (*Attelage de chars.*)

The Hix Automatic Car-Coupler Company, (assignee of Oliver P. Hix), Rockland, Me., U.S., 12th September, 1888, 5 years.

*Claim.*—1st. In a car coupler, a draw-bar or head combined with a coupling hook, or knuckle, pivoted in a vertical plane to the head or bar, and having a limited sliding movement longitudinally of the same, the construction and arrangement of the hook and bar with respect to each other being such that the hook may be moved inward or rearward, and bear or be set against the end of the bar and become virtually one therewith, as set forth. 2nd. In a car coupler, a draw-bar or head, combined with a coupling hook, or knuckle, pivoted to the head and having a limited sliding movement longitudinally of the same, and a weighted bolt or bar for locking said hook against and releasing it to permit of action on its pivot, said weighted bolt being constructed and arranged to bear against the hook, or knuckle, and hold it normally pressed forward, as set forth. 3rd. In a car coupler, a draw-bar or head combined with a coupling hook, or knuckle, pivoted to the head, and having a limited sliding movement longitudinally of the head, and a weighted bolt or bar having a movement vertically and longitudinally with respect to the head for locking said hook against and releasing it to permit of action on its pivot, substantially as set forth. 4th. In a car coupler, a draw-bar or head, combined with a coupling hook, or knuckle, pivoted to the head, and having a limited sliding movement longitudinally of the head, and a weighted locking bolt or bar having a movement vertically and longitudinally with respect to the head, said bolt or bar being arranged to bear against the coupling hook, or knuckle, whereby when the latter is pressed rearwardly in the draw-bar or head and left free, the weighted locking bolt will push it forward again to its normal position, and turn it on its axial pin when uncoupled or released, as set forth.

#### No. 29,855. Mowing Machine. (*Faucheuse.*)

The Brown Endless Cutter Company, (assignee of James O. Brown), Boston, Mass., U.S., 12th September, 1888, 5 years.

*Claim.*—1st. A finger bar composed of a metal strip or plate of uniform thickness, having a series of teeth or projections at its forward edge integral therewith forming leger plates, and provided with a series of rigid guard fingers attached to the under side of the plate behind said teeth and in contact with the under surfaces thereof, and interlocked as described with the outer ends or points of the teeth, and having rods projecting backwardly over the upper surfaces of the teeth, said rods holding and stiffening the teeth or leger plates, as set forth. 2nd. In a cutter mechanism for mowing or reaping machines, the combination of a finger bar composed of a metal sheet or plate of uniform thickness, having a series of integral teeth at its forward edge forming leger plates, a corresponding series of guard fingers attached to said plate, and bearing against the under sides of the teeth, and provided with guards projecting over and