

*Claim.*—1st. In a vessel, the combination, with a keel and trunk, and a pin passing through the keel, of a centreboard having at its lower forward end a slot extending from the lower edge upward and forward, and adapted to engage the pin when in operative position. 2nd. A centreboard for vessels, having at its forward lower corner a casting 6, provided with a slot 5 which extends from the lower edge upward and forward.

**No. 30,140. Art or Process of Treating Soap Lyes for the Purpose of Obtaining Glycerine and other Products therefrom.** (*Procédé de traitement des lessives de savon pour en tirer la glycérine et d'autres produits.*)

James A. Kirk, John B. Kirk, Milton W. Kirk and Wallace F. Kirk, Chicago, Ill., U.S., assignees of Albert Domeier, and Otto C. Hagemann, London, Eng., 7th November, 1888; 5 years.

*Claim.*—1st. The process herein described, of recovering glycerine from lye, which consists in adding thereto while air is blown through the lye, an excess of acid in the presence of an insoluble silicate, substantially as and for the purpose described. 2nd. The process of recovering glycerine from lye, which consists in adding to it an acid in the presence of a current of air, and of an insoluble powder to serve as a mechanical carrier, of the resulting precipitate, said precipitate being the insoluble resinous and fatty acids that were originally contained in the lye. 3rd. The process of preparing lye for the extraction of glycerine, which consists in adding thereto an excess of acid in the presence of a mechanical carrier in the nature of an insoluble powder, of the resulting precipitate, and afterward adding an alkali to said lye for the purpose of removing the albuminous matters contained therein, as specified. 4th. The process herein described, of extracting salt from lye, which consists in adding thereto acids in the presence of an insoluble powder constituting a mechanical carrier of the resulting precipitate, and afterwards adding an alkali to the lye, and then boiling it down until the salt it contains crystallizes and glycerine is separated, as set forth. 5th. The process of extracting salt and glycerine from lye, which consists in, first, adding lime, second, boiling the lye down to the salting point, third, adding acid in the presence of an insoluble powder constituting a mechanical carrier of the resulting precipitate, then adding alkali, and, finally, boiling the lye down until the salt crystallizes and glycerine is separated, as set forth. 6th. The process of recovering salt and glycerine from spent lye, which consists in adding lime, then acid in the presence of a mechanical carrier of the nature of an insoluble powder, of the resulting precipitate, then soda, and, finally, boiling down the lye until the salt it contains crystallizes and glycerine is separated, as set forth.

**No. 30,141. Wood Split Pulley.**

(*Poulie de bois brisée*)

William R. Fee, Cincinnati, Ohio, U. S., 7th November, 1888; 5 years.

*Claim.*—1st. In a wooden split pulley, the hub or pulley built up of layers of semicircular pieces, the ends of which cross each other at right angles, so that the projecting ends interlace, having a central bore larger than the shaft, in combination with the tapering bush on each side, around which the semicircular pieces are locked, substantially as herein set forth. 2nd. A pulley, having a web on which is built up, separately at each side a hub, composed of semicircular pieces, each alternate piece of which has its central straight edge on a line with the central split of the web, and the other semicircular piece at right angles thereto, so that the lapped semicircular pieces of the opposite sections of the pulley interlap, and having on the periphery of this web a rim, the ends of which overlap alternately beyond the central dividing line of the two sections, substantially as herein set forth. 3rd. In a wood split pulley, a hub having interlacing projecting ends at right angles to the line of the split in the pulley, in combination with the shaft, and split tapering bush for locking said hub and binding same to the shaft, substantially as herein set forth. 4th. In split pulleys, a shaft bore therein flaring at each end, in combination with a double tapering split bush, having a tightening band or strap for holding the outer end of said bush, substantially as shown. 5th. In split pulleys, a split bush having a raised central band or rim, and the ends tapered, in combination with a strap band or ring on one end for holding the said split bush on the shaft, substantially as herein set forth. 6th. In wooden split pulleys the central web having built up on each side a tapering hub, in combination with bands or straps on the tapering ends of the hubs, substantially as herein set forth.

**No. 30,142. Candle Lamp.** (*Bougie-lampe.*)

John Martin, Kew, Victoria, 7th November, 1888; 5 years.

*Claim.*—In candle lamps, the combination of a semicircular or circular candle socket instead of a straight one, as hitherto which is preferably semicircular in cross-section, with a spring, or its equivalent for applying pressure to the candle in such socket, substantially as and for the purpose herein described and explained.

**No. 30,143. Photographic Instrument.**

(*Instrument photographique*)

John R. Cannon, Elora, Ont., 7th November, 1888; 5 years.

*Claim.*—1st. A photographic instrument pivoted on the optical centre or axis of the lens, in combination with a sensitive film, arranged so that, as the instrument revolves, the said film shall be presented to the focus of the lens exactly as required to receive the image formed by the lens, substantially as and for the purpose specified. 2nd. A photographic instrument, pivoted on the optical centre or axis of the lens, in combination with a sensitive film placed on paper, glass, or any other substance, located on a radius struck from

the optical centre or axis of the lens, substantially as and for the purpose specified. 3rd. A photographic instrument pivoted on the optical centre or axis of the lens, in combination with a sensitive film placed on paper, glass, or any other substance, located on a radius struck from the optical centre or axis of the lens, and of a narrow passage way located between the lens and its focus, substantially as and for the purpose specified. 4th. A photographic instrument A, pivoted on its optical centre or axis  $\alpha$ , around which it is caused to revolve, in combination with the rollers C, D, between which the sensitive paper B passes, and which are caused to revolve with the instrument A, so that a fresh surface of sensitive film shall be brought continuously within the focus of the lens as the instrument A revolves, substantially as and for the purpose specified. 5th. A photographic instrument A, pivoted on its optical centre or axis  $\alpha$ , around which it is caused to revolve, in combination with the rollers E, F arranged to carry the sensitive paper B, which it carried over the rollers C, D, between the rollers G, the rollers C, D, being caused to revolve with the instrument A, so that a fresh surface of sensitive film shall be brought continuously within the focus of the lens, as the instrument A revolves, substantially as and for the purpose specified. 6th. A photographic instrument A, pivoted on its optical centre or axis  $\alpha$ , in combination with sensitive film located within the focus of its lens on a circle struck from the optical centre or pivot of the instrument, substantially as and for the purpose specified. 7th. A photographic instrument A, pivoted on its optical centre or axis  $\alpha$ , a sensitive film located within the focus of its lens on a circle struck from the optical centre or pivot of the instrument, in combination with a narrow passage-way located between the lens and its focus and caused to revolve with the instrument, substantially as and for the purpose specified.

**No. 30,144. Combined Ledger and Bill Book.** (*Grand livre et livre de traites et de remises combinés.*)

Charles L. Searcy, Waco, Ken., U. S., 7th November, 1888; 5 years.

*Claim.*—A combined ledger and bill-book, having the main or permanent part A of the pages ruled, or otherwise provided with profit, date, day-book, page, number, debit and credit columns, and an upper blank for the name of customer, and number and date of account, and the removable part B, provided with the ordinary bill-head blank and ruler, or otherwise provided with date, item, debit, and credit columns, the parts being divided for separation by a line of perforations, substantially as herein shown and for the purpose set forth.

**No. 30,145. Spring Light Carriage.**

(*Vouture légère à ressorts.*)

Isaac H. Culp, Hamilton, Ont., 7th November, 1888; 5 years.

*Claim.*—1st. In a light, low, one spring carriage, the combination of the double levers D, having cross-bars d, to which is secured the spring E, substantially as and for the purpose hereinbefore set forth. 2nd. In a one spring carriage, the combination of the double levers and spring, with the angle pillars B, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the circle K with its cap m, axle J and the double levers D, substantially as and for the purpose hereinbefore set forth. 4th. In a light, low, one spring carriage, the combination of the levers D, having cross-bars d, with spring E secured to the centres, and pillars B, of the axles J and the circle K, with its cap m, substantially as and for the purpose hereinbefore set forth.

**No. 30,146. Siphon Water Closet.**

(*Latrines à siphon.*)

James E. Boyle, Brooklyn, N. Y., U. S., 7th November, 1888; 5 years.

*Claim.*—1st. A water-closet, consisting of the combination of a bowl, a soil-passage leading therefrom, an upper trap in said passage by which water is retained in the bowl, a lower trap therein by which an air-space is formed between the two traps, and an air-passage leading from said space and opening into the soil-passage beyond the lower trap in such position as to be unseated when the closet is at rest and covered with water when the outflow is taking place. 2nd. A water-closet, consisting of the combination of a bowl, a soil-passage leading therefrom, an upper trap in said passage by which water is retained in the bowl, a lower trap therein by which an air-space is formed between the two traps, and an air-passage leading from the upper part of said space, and opening into the soil-passage beyond the lower trap, close above the water level therein and adjacent to the dam thereof, whereby it is unsealed when the closet is at rest and submerged when the water is flowing out over the dam. 3rd. A water closet, consisting of the combination of a bowl, a soil-passage leading therefrom, an upper trap in said passage by which water is retained in the bowl, a lower trap therein by which an air-space is formed between the two traps, and an air-passage leading from said space and opening into the soil-passage beyond the lower trap, all formed in one piece of porcelain. 4th. A water-closet, consisting of the combination of a bowl, a soil-passage leading therefrom, a trap in said passage, a back-air connection and a partition in the soil-passage constructed to separate the down leg of said trap from the back air connection, and thereby constitute said leg the long leg of the siphon. 5th. A water closet, consisting of the combination of a bowl, a soil-passage leading therefrom, a trap in said passage, a back-air connection at the crown thereof, and a partition in the soil-passage extending downwardly from said connection and constructed to separate the down leg of said trap therefrom, and to form a separate vent passage extending from said connection, to the neck of the trap, where it connects with the soil-pipe. 6th. A water closet, consisting of the combination of bowl A, soil-passage B, bent to form traps D and E, with intervening air space C, back-air connection c, and partition c, dividing the lower portion of the passage into a siphon-leg h, forming a continuation of the lower trap, and a vent-passage l, communicating with said connection, whereby the soil-passage forms a continuous siphon from the bowl through the lower trap and down to the bottom of said partition.