the liquid in the tank, the three way-cock and pipes from the same to the tank and measure respectively; 2nd. The barrel *d* and plug *e*, having the two passage ways 4 and 5 and movable stop *i*, in combination with the pipes *f* and *g* opening through the barrel of the cock and the discharge *h*; 3rd. The combination, with the tank, of a pump barrel placed within the tank, the pump rod passing through the top of the tank and the inlet pipe to the pump through the side of the tank.

No. 10,485. Concealed Jointed Brace for Carriage Tops. (*Gousset à joint caché pour soufflets de voitures.*)

David W. Baird, Geneva, N. Y., U. S., 26th September, 1879 (Extension of Patent No. 3,938), for 5 years.

No. 10,486. Bag Holders. (*Accroche-sacs.*)

Leonard Crofoot, Pavilion, N. Y., U. S., 26th September, 1879 (Extension of Patent No. 3,995), for 5 years.

No. 10,487. Machine for Washing or Separating the Heavier Ores or Metals. (*Machine à laver ou séparer les minerais ou métaux lourds.*)

William B. Frue, Silver Islet, Ont., 27th September, 1879 (Extension of Patent No. 3,974), for 5 years.

No. 10,488. Improvements in Oil Cans. (*Perfectionnements aux bidons à huile.*)

Jocob Rhule, Jr., and William H. Cameron, Pittsburgh, Pa., U.S., 27th September, 1879, for 5 years.

Claim.—1st. An oil can composed of the bottle A, stand B, ring C, rods a_1 a_1, stopper D, washer f_1, valve rod E, valve F^2, hanger g_1, spiral spring h_1, spout H, hooked rods i^1 i^1 and staples o^1 o^1; 2nd. In combination with the bottle A, stand B, and ring C of an oil can, the layer of felt or equivalent material b^1; 3rd. In combination with the stopper D and staples o^1 o^1, the hooked rods i^1 i^1, provided with spiral springs s^1 s^1 for permitting the lifting of the stopper under pressure of gas in the can.

No. 10,489. Improvements on Gas Regulators. (*Perfectionnements aux régulateurs à gaz.*)

Henry S. Servos, St. John, N. B., 27th September, 1879, for 5 years.

Claim.—1st. A casing, with communicating chambers, one above the other, in connection with an adjustable diaphragm affixed to the stem in one chamber, and with separately vibrating cap valve or valves sliding on the stem in the other chamber, to jointly control the supply and regulate the pressure of gas; 2nd. The cup-shaped valve E, having a conical top part forming contact only at point of connection with stem to prevent sticking.

No. 10,490. Improvements on Carriage Axles. (*Perfectionnements aux essieux des voitures.*)

Henry Killam, New Haven, Conn., U. S., 27th September, 1879, for 15 years.

Claim.—1st. The combination of an axle arm and box, the arm reduced in diameter at its forward end and the box correspondingly chambered, so that corresponding shoulders are formed on both, axle and bar, with a spring in the space between the axle and box and bearing on both said shoulders, a nut on the end of the axle, a second nut serving as a cover for the axle nut and both nuts bearing upon the outer end of the spring each independent of the other; 2nd. The combination of the axle arm and box, the two recessed to form corresponding shoulders, with a nut on the axle and ring screwed into the box, the said nut and ring to form respectively shoulders corresponding to the shoulders on the axle and box and a spring in the said recess; 3rd. The combination of the axle arm and box, the two recessed to form corresponding shoulders, with a nut on the axle and ring screwed into the box, the said nut and ring to form respectively shoulders corresponding to shoulders on the axle and box, and a spring in the said recess and a covering nut screwed on over the end of the box.

No. 10,491. Thrashing and Grain Separating Machine. (*Machine à battre et à séparer les grains.*)

Jacob Morse, Clinton, Ont., 27th September, 1879, for 5 years.

Claim.—1st. The cap A constructed integrally of cast iron, or of cast and wrought iron united in parts; 2nd. The combination of the shaft D, eccentrics F, caps G fitting thereon, pitman J and bar K for operating the shoe; 3rd. The hangers I in combination with the bar K and pitmans J, for giving an inclined motion to one end of the shoe; 4th. The shaft M provided with eccentric discs N for inclining the sieves; 5th. The bracket castings O having bifurcation *g* and jaws *f*, for holding the sieves; 6th. The hinge O^1 composed of duplicate parts *a b* having lugs *c d*.

No. 10,492. Improvements on Glass Vessels. (*Perfectionnements aux vases de verre.*)

Daniel W. Norris, Elgin, Ill., U. S., 1st October, 1879, (Re-issue of Patent No. 8580).

Claim.—1st. An incased glass vessel, for containing and transporting liquids, having an elastic metallic rim extending under the edges of the bottom, for the purpose of furnishing a support for the vessel without excluding light through the bottom when the incased vessel is raised; 2nd. In the combination of a glass vessel, paper side casing and metal top covering; 3rd. The combination of the lifting bail or handle and the inclosing case, with the vessel having a screw neck, and cap or ring screwing or otherwise secured around said screw neck and lapping over the top casing, whereby in lifting the vessel, the whole or a portion of the weight is supported by the screw-neck; 4th. An incased glass vessel, provided with one or more supply and discharge necks having external metal coverings screwing or otherwise secured around said neck or necks and attached to the top casing, in combination with a lifting bail or handle, whereby in carrying the vessel the whole or a portion of the weight is supported by the glass neck or necks; 5th. An incased glass vessel having a glass discharge neck, a metallic collar permanently attached to the periphery of said neck and also to the casing, and having a pouring spout permanently attached to said peripheral collar; 6th. A glass vessel having, near one side of its top, a tapering metal pouring tube projecting upwardly and inclined outwardly, said metal tube being affixed to the glass top of the vessel by a cemented screw connection; 7th. An incased glass vessel having, on one side of its top, a projecting, tapering and outwardly inclined metal pouring tube affixed, by a cemented screw connection, to the glass top of the vessel and having, at another place, on its said top, an independent filling orifice closed and opened by a metal screw cap which screws upon a metal surface permanently attached to the glass top of the vessel; 8th. In combination with the incased glass vessel, the supplemental wooden bottom; 9th. In combination with a glass vessel, a fixed metal cover provided with ears for the carrying bail.

No. 10,493. Key for Water Cocks. (*Clef de robinets d'aqueduc.*)

Louis E. Morin, Montreal, Que., 2nd October, 1879, for 5 years.

Resumé.—1o. Une clef de robinet à plusieurs orifices de distribution composée d'un emboitement conique D, d'une tige *f* et d'un repère ou indicateur F^1 sur la barette F; 2o. En combinaison avec une clef de robinet à emboitement conique, une tête de robinet C de forme correspondante, permettant d'ajuster la clef sur la tête du robinet, et servant à indiquer quels orifices du robinet sont ouverts ou fermés; 3o. Dans une clef de robinet à orifices multiple, un indicateur ou repère F^1 servant à indiquer la position exacte des orifices du barillet correspondant à ceux du robinet; 4o. En combinaison avec une tête de robinet du modèle C G^2 ou R, une clef de forme correspondante, et une plaque chiffrée P destinée à indiquer au dehors la position des orifices du robinet.

No. 10,494. Improvements in Bottle Stoppers. (*Perfectionnements aux bouchons des bouteilles.*)

Henry Barrett, London, England, 2nd October, 1879, for 5 years.

Claim.—1st. In the mode of stoppering bottles, for containing aerated or gaseous liquids, by means of an internal stopper *b*, of greater diameter than the opening of the neck and formed within or introduced into the bottle in combination with an elastic seating in the neck of the bottle; 2nd. In the use and employment of a ring *i i* of combined hard and soft rubber, for forming a seating in the neck of bottles stoppered by means of an internal stopper; 3rd. In the improved tools for forming, within a bottle, a spherical stopper having a greater diameter than the neck of the bottle; 4th. The stopper *k* for stoppering bottles intended to contain beer and other malt liquor.

No. 10,495. Galvanized Iron Monument. (*Tombe en fer galvanisé.*)

Richard Chappell, Alliston, Ont., 2nd October, 1879, for 5 years.

Claim.—The combination of the sheets B, plates C and the recessed ribs A.

No. 10,496. Improvements on Grain Separators. (*Perfectionnements aux séparateurs des grains.*)

Edward S. Higgins, Ottawa, Ont., 2nd October, 1879, for 5 years.

Claim.—1st. The fan-wheel having fans D, set obliquely to each other, to drive the currents of air diagonally in alternate directions, from side to side of the mill; 2nd. The wheel casing C, provided with hinged doors V having a sliding section W; 3rd. The movable section E, constituting the upper front portion of the mill, having a lateral sliding motion and carrying a number of sieves; 4th. The feed board *f* and section E connected by double angled brackets *g*; 5th. The section E carried by eyes *h* and rod *i*, and sliding on bearings *j*, and operated by an elbow lever K^1 fulcrumed to section E and frame A; 6th. The side A having two rack bars *b*, near the extremities, operated by pinions *c* on a shaft *d* by hand wheel *e*; 7th. The wind boards F G having an elbow-arm engaging with quadrant *r* for adjustment; 8th. The pinion I having a grooved arm with adjustable sliding block to connect with pitman O by a wrist-pin; 9th. The pinions I M having a grooved arm with adjustable sliding blocks, to connect with pitmans N O by a wrist-pin; 10th. The combination of the driving wheel H, gear pinions I J, gear wheels K L and M, for operating the pitmans N O, for shaking the section E, lower sieves S^1 and driving the fan wheel D, simultaneously.

No. 10,497. Improvements in the Art of Painting Pictures. (*Perfectionnements dans l'art de peindre les images.*)

Thomas Doney, Chicago, Ill., U. S., 2nd October, 1879, for 5 years.

Claim.—In the process of painting photographs, lithographs or other pictures, on a transparent medium attached to the back of said picture by use of the described mixture.

No. 10,498. Improvements on Cutter Bars for Harvesters. (*Perfectionnements aux lames des moissonneuses.*)

Robert Whiting and Miles Weathered, Chantry, Ont., and William Weathered, Toledo, Ohio, U. S., 2nd October, 1879, for 5 years.

Claim.—A cutter bar A, having a longitudinal groove B and inserted section bars C, to which the sickles D are severally fastened, and a locking and binding screw for clamping the section bars endwise in the groove B.

No. 10,499. Improvements on Hat Holders. (*Perfectionnements aux porte-chapeaux.*)

Charles Nelson, Port Huron, Mich., U. S., and Joseph S. Kite, London, Ont., 2nd October, 1879, for 5 years.

Claim.—A metal spring A, knob D, leather strip E and projecting tongue F attached, by screw B, to back of pew or other surface.