

ing separating fans, of the co-operating screens rendered adjustable toward and from the fan. 7th. The combination, with the hopper, of the feed roller working in the bottom thereof, and the swinging gate arranged to swing inward so as to leave a lateral discharge opening.

**No. 13,657. Improvements on Thill Couplings.**  
(*Perfectionnements aux ajustages des limonnières.*)

John Richardson, Ancaster, Ont., 10th November, 1881; for 5 years.

*Claim.*—The form and action of the thill and thill hooks, in combination with the rubber and rubber holder E and D, the bolt G and plate H.

**No. 13,658. Improvements on Steam Cookers.**  
(*Perfectionnements aux chaudières à vapeur.*)

James Lidstone, Farmington, Me. U. S., 10th November, 1881; for 5 years.

*Claim.*—1st. The combination, with a steam cooker A having communicating compartments, of the tube H, one part of which extends diagonally through the side and down to the bottom of the cooker, and has no opening save at the lower end and top and the float I, having the stem J provided with the button L. 2nd. The combination, with the cooker A, of the tube M leading down along the side of the cooker A to the space between it and the flange B and connected, at its upper end, by an opening m with the inside of said cooker, whereby the steam and odors are conducted to the fire box.

**No. 13,659. Improvements in Eye Glasses.** (*Perfectionnements aux binocles.*)

Fred Testergen, Elizabeth, N. J., U. S., 10th November, 1881, for 5 years.

*Claim.*—An eye glass having the nose piece or bow spring jointed in the middle so as to permit the lenses to fold sidewise towards each other and having the ends of the two sections of the nose pieces, or bow spring, extended past the pivot, and provided with locking devices for holding the same in position for use.

**No. 13,660. Improvements on Fences.** (*Perfectionnements aux clôtures.*)

David E. Clarke, Wellington, Ont., 10th November, 1881; for 5 years.

*Claim.*—1st. The combination of the movable piece D with the triangle lock. 2nd. The mode and manner of securing together the panel and triangle lock. 3rd. The combination of the foot F with the triangle lock.

**No. 13,661. Improvements on Coal Oil or Gas Stoves.** (*Perfectionnements aux poêles à pétrole ou à gaz.*)

James Tredale, Toronto, Ont., 10th November, 1881; for 5 years.

*Claim.*—In connection with the oven of a cooking stove in which the flame and heated gases are conveyed direct from the burner through a space between the inner and outer skins forming the sides of the oven, the combination of utensils made to fit on the outside of the oven and provided with hollow arms D, extending immediately over the point where the flame and heated gases, passing from the burner, enter the space between the two skins of the oven.

**No. 13,662. Improvements on Machinery for Breaking Flax, Hemp, &c.** (*Perfectionnements aux machines à teiller le lin, le chanvre, &c.*)

John Shinn and Abbott F. Fuller, Philadelphia, Pa., U. S., 10th November, 1881; for 5 years.

*Claim.*—1st. A brake consisting of a fixed bed H and a reciprocating beater J so constructed and operated that for each blow of the beater, there will be but one fracture of the fibrous stalks. 2nd. The combination of feeding rollers G G with a brake consisting of a bed H and beater J constructed and operating on the fibrous plants. 3rd. The combination of feeding rollers G G and a brake consisting of a bed H and beater J constructed and operating on fibrous plants, with the delivering rollers G G. 4th. The combination of the feeding rollers G G, stationary bed H, reciprocating beater J and a scutching cylinder B having a series of blades a a.

**No. 13,663. Improvements on Children's Carriages.** (*Perfectionnements aux voitures d'enfants.*)

Enoch Ziegler and Benjamin H. Ziegler, Berlin, 10th November, 1881 for 5 years.

*Claim.*—The construction and application of the spring I to the body of the perambulator, which is on a lever principle and not heretofore used in the same form in perambulators, and so attached to D and E that, whether carrying a light or heavy weight, the same motion is attained by moving hanger E backward or forward on block E. The application of coil spring which, on the same lever principle, gives the motion described in the mode of attachment of push handle to the perambulator as shown by fixtures A B C and the simplicity by which handle is removed from perambulator, making it not only a perambulator for out-doors but also a child's cradle for use in-doors without inconvenience in small rooms. The simplicity of mode of letting down and putting up back of seat in perambulator, by means of hook G and catch H, for the purpose of making the perambulator a sleeper.

**No. 13,664. Improvements in Artificial Stones.** (*Perfectionnements dans la pierre artificielle.*)

James H. Thorp, Baltimore, Md., U. S., 10th November, 1881; for 5 years.

*Claim.*—1st. A block, slab, or other artificial stone, composed of a face plate or shell of porcelain, or its equivalent, and a backing or body of a suitable composition united thereto. 2nd. An artificial stone consisting in a body composed of sand and lime or cement set with a solution of shellac, glue, borax, alum and sal soda, and having a facing of porcelain or its equivalent. 3rd. An artificial stone slab, or other article having a chamfered or dished face-plate of porcelain or its equivalent. 4th. An artificial stone having one or more wires embedded therein and adapted for connection, to bind the ties of stones together or to the beams. 5th. In combination with an artificial or natural stone, a partition plate D adapted for insertion between the tier of stones to prevent the entrance of moisture. 6th. As a new article of manufacture, a face-plate for artificial stones consisting of a shell of porcelain or its equivalent, having a glazed exterior and an unglazed interior face adapted for the adhesion thereto of the plastic composition. 7th. The chamfered or dished plate A having glazed exterior and lugs or pins on its inner face, holding the body B, wires C or both.

**No. 13,665. Improvements on Submarine Cable Grappels.** (*Perfectionnements aux grappins pour les câbles sous-marins.*)

Hubert Kingsford, Halifax, N. S., 10th November, 1881; for 5 years.

*Claim.*—1st. The application of electricity to a grappel. 2nd. The arrangement of block e, plunger d, pin c, spine f, contact plate, g and connecting wires h, in combination with a grappel.

**No. 13,666. Improvements on Process for Treating Liquids or matters Dissolved or Suspended in Liquids, and in Effecting the Inter-action therewith of Gases or Vapours for Promoting various Chemical and other Operations, and on Apparatus Therefor.** (*Perfectionnements au procédé de traitement des liquides ou des matières en dissolution ou en suspension dans les liquides et, avec l'action simultanée du gaz ou des vapeurs, pour aider diverses opérations chimiques et autres, et aux appareils pour cet objet.*)

John Storer, Glasgow, Scotland, 10th November, 1881; for 5 years.

*Claim.*—1st. The system of treating liquids or matters dissolved or suspended in liquids, and of effecting the interaction therewith of gases or vapours for promoting various chemical and other operations, wherein the liquids or matters are subjected to the action of one or more propellers or pulverizers driven at a sufficient velocity to beat the gases or vapours into the liquid, and produce their minute pulverization and admixture with liquid. 2nd. The improved modifications of apparatus, when applied for effecting the interaction of gases or vapours with liquids, or with matters dissolved or suspended in liquids, and for thereby promoting chemical and other operations.

**No. 13,667. Improvements on Pomades.** (*Perfectionnements aux pommades.*)

Rémi Prud'homme, St. Thomas d'Alfred, Ont., 10th November, 1881; for 5 years.

*Claim.*—A composition of matter composed of vaseline, medulloc, ossium bovis, olei ricini, acidi gallici, balsami peruviani, olei caryophylli and camellae.

**No. 13,668. Improvements on Explosive Com-pounds.** (*Perfectionnements aux composés explosibles.*)

Silas R. Divine, Lock Scheldrake, N. Y., U. S., 10th November, 1881; for 15 years.

*Claim.*—A solid ingredient, such as chlorate of potash and a liquid ingredient, such as nitro-benzole, mechanically united in the proportions of from three to four and one sixth parts of the solid ingredient to one part of the liquid ingredient.

**No. 13,669. Improvements on Blasting and Blasting Cartridges.** (*Perfectionnements dans le forage et les cartouches des mines.*)

Silas R. Divine, Lock Scheldrake, N. Y., U. S., 10th November, 1881; for 15 years.

*Claim.*—1st. Preparing an explosive compound from an inexplusive solid ingredient, such as crushed or powdered chlorate of potash, and an inexplusive liquid ingredient such as nitro-benzole, by depositing prescribed quantities of the solid ingredient in cylindrical cartridges or envelopes made of cloth, paper or other porous material, of diameters corresponding to the diameters of the drill-holes in which the explosive is to be employed, and in immersing the envelopes containing the solid ingredient in the liquid ingredient, or otherwise saturating the solid ingredient and its envelope with the liquid ingredient, preparatory to depositing the cylindrical envelope or cartridge in the drill hole, and igniting it with an exploder or by any other of the usual means. 2nd. The improved blasting cartridge, which consists of a cylindrical cartridge or envelope made of cloth, paper, or other porous material, containing a solid substance, such as crushed or powdered chlorate of potash or its equivalent which, together with its envelope, is saturated with a liquid, such as nitro-benzole or its equivalent.