

justable beaters *m*, applied to the rake arms, above and in front of the rake-heads, and set obliquely to said heads; 1th. The angular clasp or socket-piece *n*, with its spur or finger *m*, and single through-bolt, in combination with the rake-arms and the adjustable-beaters *m*, for uniting said beaters to the rake-arms.

No. 4810. JOSIAH S. CLARK, and JOHN STANDFIELD, Westminster, Eng., 15th June, 1875, for 5 years: "Improvements on Floating Docks and Pontoons." (Perfectionnements aux bassins de radoub et aux pontons.)

Claim.—1st. The construction of floating docks and pontoons with slots or comb-shaped openings *Y*, in the bottom for the purpose of raising and depositing vessels on to corresponding fixed stages; 2nd. The use of the aforesaid slotted docks or pontoons together with slotted or comb-shaped stages *Z*; 3rd. The construction of floating docks in separate portions with one or both sides *A*, *A*, removable; 4th. The combined arrangement of apparatus for blocking ships on the docks or pontoons consisting of blocks *L*, jibs *N*, *O*, and chain carrying-blocks *P*, or rollers *Q*; 5th. The combined arrangement of apparatus for blocking ships on the docks or pontoons, consisting of chains, carrying rollers *Q*, and fixed at one end to the dock or pontoon below the vessel and at their opposite ends to shores or jibs *T*, *U*; 6th. The combined arrangement of apparatus for supporting vessels, consisting of pistons *R*, and cylinders *S*, filled with sand and provided with openings *S*, for its removal by a jet of water.

No. 4841. ADAM A. WILSON, Montreal, Que., 15th June, 1875, for 5 years: "Improvements on Compounds for Mixing Paints." (Perfectionnements aux compositions à délayer les couleurs.)

Claim.—The new compound composed of coal-oil, or benzine, or kerosene or turpentine, or crude-naptha, with rosin and white-nig.

No. 4842. JOSEPH A. EGGINTON, Montreal, Que., 15th June, 1875, for 5 years: "Coloured Glass Relief Letters." (Lettres en relief sur verre colorié.)

Claim.—A coloured glass relief letter, formed from stained or other coloured flat or sheet glass.

No. 4843. JOHN C. RAMSDEN, Halifax, Eng., 15th June, 1875, for 5 years: "Method of and Apparatus for Securing the Combustion of Fuel and for the Utilization of Gases thereof." (Méthode et appareil pour faciliter l'embrasement du combustible et en utiliser les gaz.)

Claim.—The new and improved means or method of and apparatus for securing the combustion of fuel and for the utilization of the gases therefrom consisting in the combination with the furnace of the hopper *A*, blast-pipe *B*, plate *C*, hydrocarbon-pipe *D*, steam-pipe *E*, exhaust-fan-pipe *F*, receiver *H*, and pipes *I*, and *M*.

No. 4844. HORATIO W. MURDOCK, and MARTIN E. SNIDER, Toronto, Ont., 15th June, 1875, for 5 years: "Pocket Door-Fastening." (Fermeture portatif.)

Claim.—1st. The detachable-pin or stud *F*, either threaded or plain in combination with the enlarged-end *C*, of the bar *D*, the said enlarged-end having a hole *E*, (either threaded or plain) to receive the pin or stud *F*.

No. 4845. THOMAS FOSTER, Lindsay, Ont., 15th June, 1875, for 5 years: "Hame Fastening." (Ajustage des attelles.)

Claim.—1st. The chain *C*, and lever *D*, having hook *E*, attached to the hames *A*, to couple together and operate as described for tightening the hames; 2nd. The eye *G*, secured to the hame *A*, and receiving a slot *F*, in the lever, for fastening the lever *D*, by a snap or pin *H*.

No. 4846. RICHARD TAYLOR, Guelph, Ont., and HENRY SLIKER, Buffalo, N. Y., U. S., 15th June, 1875, for 5 years: "Rail-Joint and Nut-Lock." (Joint de rails et noix de sûreté.)

Claim.—1st. The cabard *B*, made in one or two pieces in combination with the rail-ends *A*, *A*, and bolts *C*, *C*; 2nd. The nut-lock *D*, with tongues *D*, *D*, in combination with the bolts *C*, *C*, and nuts *E*, *E*.

No. 4847. JOSEPH L. BOND, and DENNIS SHOFF, Sarnia, Ont., 15th June, 1875, for 5 years: "Pawl and Ratchet Mechanism." (Mécanisme de roue à rochet.)

Claim.—1st. The combination of the slotted-lever *D*, working on fulcrum *C*, the connecting-links *F*, *F*, pivoted at *I*, to lever *D*, and movable boxes *G*, containing pawls *H*, *H*, with the ratchet-wheel *E*, constructed and arranged to operate the ratchet-wheel in one direction; 2nd. The pawl-boxes *G*, constructed with grooves *g*, in combination with the flange *e*, on the sides of the ratchet-wheel *E*; 3rd. The combination of the lever *D*, and the two connecting-links *F*, with movable-boxes *G*, containing reversible-pawls *H*, to revolve the ratchet-wheel continuously in either direction.

No. 4848. WILLIAM C. BARKER, Millport, N. Y., U. S., 15th June, 1875, for 5 years: "Chain Pump Bucket." (Godet de chapelet.)

Claim.—1st. An elastic-bucket of convex-exterior, hollowed or concaved at the base; 2nd. An elastic-bucket having concave convex surfaces, and provided with a leak-opening *b*. 3rd. An elastic bucket having concave and convex-surfaces, and a leak-opening *b*, in combination with a link *C*.

No. 4849. EDWARD J. BROOKS, New-York, U. S., 15th June, 1875, for 5 years: "Improvements on Metallic Seals." (Perfectionnements aux cachets métalliques.)

Claim.—1st. A bow or shackle *A*, of wire or its equivalent, and a ball or disc *B*, of lead or its equivalent; the latter having one or more apertures or perforations, for the reception of one or both ends of the bow or shackle, so arranged as to cross the end or each end over the other or over an equivalent lock or anchor within the seal; 2nd. The combination of a ball or disc of soft metal, a loop or loops of hard metal encircling or bushing an orifice in the soft metal, and a wire to pass through the bush orifice; 3rd. A shackle-wire or its equivalent having a ball or disc of lead or its equivalent, cast on one end of the same, and provided with a perforation for the reception of its other end; 4th. A shackle wire having one end anchored in a ball or disc of lead or its equivalent, by means of a loop or loops thereon; 5th. The combination of a shackle wire *A*, having a looped-end and a soft metal-ball or disc *B*, cast upon the looped-end of the wire *A*, and pierced with an aperture extending through the loop of the wire.

No. 4850. CHARLES E. PATRIC, and JAMES S. BOGLE, Springfield, Ohio, U. S., 15th June, 1875, for 5 years: "Seeding Machine." (Machine à semer.)

Claim.—1st. The pivoted cover-plate *H*, in combination with the removable-pin *b*, on the distributor wheel shaft, for protecting the said pinion, and holding it in place on its shaft; 2nd. The divided cover *H*, *h*, partly fixed and partly pivoted and movable, for protecting the gearing and permitting the removal of the pinion on the distributor-wheel shaft; 3rd. The ratchet-bar *F*, in combination with the slipping-lever *E*, for permitting the change of pinions and for holding said lever *E*, at any desired point of adjustment.

No. 4851. GEORGE B. PETERS, (Assignee of I. G. Betts), Marshall, Mich., U. S., 15th June, 1875, for 5 years: "Lubricating Compound." (Composition lubrifiante.)

Claim.—1st. The process of making a base for lubricating compounds by partially saponifying alkalies, water and fats, and combining with the same, when cold a quantity of cold oil; 2nd. A lubricating-compound composed of a base made by partially saponified-alkalies, water and fats combined when cold with cold oil and asbestos, paper-pulp or other suitable material to hold the said base mechanically; 3rd. A lubricating compound adapted to be used in cups wherein to a base made of alkali, water and fat partially saponified, to which a certain quantity of cold oil has been added, and a vehicle of asbestos and paper-pulp or other to take up and mechanically hold the greasy or oily substances, there is added an essential oil.

No. 4852. WILLIAM F. WHEELER, Boston, Mass., U. S., 15th June, 1875, for 5 years: "Fertilizer Holder and Distributor." (Machine à transporter et distribuer les engrais.)

Claim.—1st. The improved device for attachment to a hose-pipe or other conduit, through which water is to pass the same consisting of a holder *A*, formed in two parts *a*, *a*, and provided with a series of internal ribs *c*; 2nd. The improved method of gradually and equally impregnating water with fertilizing and other materials to be diffused upon plants, etc. the same consisting in forming the elements or materials into a solidified or semi-solidified homogeneous mass and placing the same, so formed, into a holder or chamber connected with or arranged in a hose-pipe or other conduit through which water is forced, or caused to pass whereby the action or friction of the water, shall gradually disintegrate the compound,