

scribed in reference to Figs. 5, 6, and 7; 4th. The adaptation of such triple-cylinder engines to be worked as pumps the plungers *c*, *c*, *c*, working in barrels *d*, *d*, *d*, connected by pipes *e*, *e*, *e*, to the slide jacket whereby the pressure of the discharged fluid is applied to aid the stroke of the main pistons; 5th. The lubrication of the moving parts of the triple-cylinder engines, and pumps by charging the central cavity with lubricating material in which the moving parts work.

No. 3193. GEORGE BOOTH, Toronto, Ont., 12th March, 1874, for 5 years: "Fire Extinguisher." (Extincteur d'incendie.)

*Claim.*—1st. The application of a detachable cap *B*, to the acid pot or bottle *B*, of a fire extinguisher; 2nd. Holding an acid pot or bottle *B*, in an upright position through the agency of the cap *B*, when uncorked in such a way that when the cap is pierced the pot *B* will invert itself; 3rd. Supporting the acid pot or bottle *B*, within a pivoted casing *c*; 4th. The plunger piercer *D*, working within the cylindrical guide *d*, in combination with the detachable cap *B*, arranged as specified; 5th. Sealing the acid pot or bottle *B*, within the casing *C*, by means of the screwed cap *B*.

No. 3194. RICHARD M. WANZER, Hamilton, Ont., 12th March, 1874, for 5 years: "Sewing Machine" (Machine à coudre.)

*Claim.*—1st. The disc having grooves or guides crossing each other at a distance from its centre of rotation and the sliding pieces connected with and operating the needle bar of a sewing machine; 2nd. The take up lever *II*, when combined with and arranged between the stationary eye and the moving eye fixed to the needle *b* *r*; 3rd. The lever *L*, attached to the presser bars and arranged in connection therewith and with the face plate to elevate and turn the presser foot and retain it from turning when down; 4th. The bobbin winder *n*, *o*, arranged as shown so that the driving belt can be changed from machine to winder; 5th. The arrangement of the cam *e*, attached to shuttle driver *d*; 6th. The arrangement of the link *b*, and lever *l*, for shifting the working direction of the feeder at the will of the operator.

No. 3195. JONATHAN S. TIBBETS, Jeffersonville, Ind., U. S., 12th March, 1874, for 5 years: "Fire Extinguisher." (Extincteur d'incendie.)

*Claim.*—1st. The pipe *C*, for containing the acid made of lead or other non-corrosive material arranged within the alkali chamber of a fire extinguisher and made to communicate internally at both ends by means of openings *d*, and with the external atmosphere at one or more points by means of a controlling valve or stopper; 2nd. The pipe *C*, arranged within the alkali chamber *E*, and surrounded at its ends with the fixed case or sleeve *P*, to create an annular air space; 3rd. The bushing *L*, provided with the flange *ai*, and seat *bi*, in combination with a valve *K*, and a compressing plug or screw *L*; 4th. The bridge plate *M*, having a stop *f*, and compressing screw *L*, in combination with the lugs *N*, of the bushing *L*, and the valve *K*; 5th. The bushing provided with the flanges *l*, and seats *h*, in combination with the valve *F*, operating screw *H*, and caps *G*; 6th. The screw *H*, having groove *m*, and packing disc *o*, in combination with the valve *F*, having standards *k*, and flanges *i*, for operating in respect to the bushing and the flanged screw cap; 7th. The buckles *Q*, secured by metallic loops *p*, upon the exterior or the metallic body, of a fire extinguisher to receive the adjusting and supporting straps *S*, as specified.

No. 3196. PHILIP D. RODDEY, New York, U. S., (Assignee of William F. Thiers), 12th March, 1874, for 5 years: "Automatic Ship Ventilator, Fog Alarm and Bilge Pump." (Appareil automatique de ventilation, d'alarme et d'épuisement de cale de navire.)

*Claim.*—1st. The system set forth for automatically ventilating or pumping vessels or sounding alarms, by the motion of the vessel or of the water in which it floats; 2d. The diagonal arrangement of the connected chambers or cylinders of the respective systems to adapt them to be operated by either the pitching or rolling motion of the vessel; 3rd. The method and apparatus described, for ventilating vessels by means of chambers communicating at their lower parts with the water in which the vessel floats and at their upper parts with air pipes governed by valves.

No. 3197. EUCHARISTE DEGAGNÉ et SEM P. BROUSSEAU, Quebec, Que., 12th March, 1874, for 5 years: "Mode of Making Dish Cloths." (Manière de faire les lavettes.)

*Réclame.*—La forme de la tête de la lavette *a*, *a*, combinée avec l'introduction du morceau de métal *ai*, *ai*, de manière à faire des fils et du manche un tout solide et que les fils ne puissent ni tourner, ni remonter, ni s'échapper.

No. 3198. NATHAN A. BEACH, Stanstead, and TIMOTHY B. RIDER, and HAMILTON M. RIDER, Magog, Que., 12th March, 1874, for 5 years: "Improvement on Wheel Tires." (Perfectionnement des bandages de roues.)

*Claim.*—The forming of tire iron for wheels with a concave *D*, and remaining square or full corners *E*, as shown in F.R. 2, of the drawing to fit on the rounded felloe *B*, in the manner and for the purposes specified.

No. 3199. GEORGE MACFARLANE, Toronto, Ont., 12th March, 1874, for 5 years: "Step Ladder Lock." (Arrêt d'échelle à quercu.)

*Claim.*—The quadrant shaped arm *C*, with one or more teeth with raised knob or button at the end, also locking pin *D*, in combination with raised portion and slots set forth.

No. 3200. FRANCIS NORTHEY, Hamilton, Ont., 12th March, 1874, for 5 years: "Dampers for Cooking Stoves." (Régistres de poêle de cuisine.)

*Claim.*—The arrangement of the heat regulating dampers *c*, *ci*, in the space *G*, of cooking stoves at or about the line *x*, *x*, as specified.

No. 3201. JOHN J. MERVESP, Dobbs Ferry, N. Y., U. S., 12th March, 1874, for 5 years: "Improvement on Horse Shoes." (Perfectionnement aux fers à chevaux.)

*Claim.*—1st. The calks *B*, *B*, *B*, constructed and fitted to the shoe as specified jointly with the mode of attaching said calk to the shoe and to the hoof of the animal; 2nd. The grooves *D*, *D*, across the face of the shoe underneath the calk in which to insert a tool for removing said calks as described.

No. 3202. JAMES ARNOLD and JOSHUA C. T. TES, Scott, Ont., 12th March, 1874, for 5 years: "Improvement in the Ball and Socket Joint." (Perfectionnement dans les joints sphériques.)

*Claim.*—The socket *A*, *B*, *C*, and *D*, formed in two parts and held together by the thumb screw *H*, and the V-shaped groove *so* as to grip the arm *G*, *G*, when the thumb screw is tightened, also the ball *I* perforated by the hole *J*, which when inserted in the socket forms the ball and socket joint.

No. 3203. JOHN Y. SMITH, Pittsburg, Penn., U. S., 18th March, 1874, for 5 years: "Improvements on Air Ejectors." (Perfectionnements aux expulseurs d'air.)

*Claim.*—1st. The combination in an air ejector of the contracted portion *A*, and the cylindrical portions *A*, when said contracted portion is made of thin metal so as to cause it to operate as set forth; 2nd. The combination of the adjustable sections *A*, *A*, of the case with the stationary portion *A*, thereof as set forth; 3rd. The combination of the vacuum maintaining valve *Bi*, and the stationary portion *A*, of the case; 4th. The combination of the case *A*, of an air ejector and a drip valve *D*, for allowing the water of condensation to pass off; 5th. The combination of the valve *E*, and the case *A*, of an air ejector.

No. 3204. DAVID BOURGEOIS, Montreal, Que., 18th March, 1874, for 5 years: "Attachments to Pumps for Pumping Sand, Gravel, &c." (Attachements aux pompes pour pomper le sable, gravier, &c.)

*Réclame.*—1o. La combinaison des tuyaux en caoutchouc *C*, *C*, avec un spiral *R*; 2o. Le sucoir *E*, et sa douille *I*; 3o. Le dessous du sucoir *E*, avec son grillage latéral ou carreaux *S*; 4o. La combinaison des tuyaux en caoutchouc *C*, *C*, avec les tuyaux de fonte *P*, le sucoir *E*, la douille *I*, l'organeau *G*, la rainure *J*, la valve *K*, tel que décrit.

No. 3205. THOMAS RUSTON, Montreal, Que., 18th March, 1874, for 5 years: "Improvement on Paint Oils." (Perfectionnement des huiles pour la peinture.)

*Claim.*—The manufacture and preparation of a compound paint oil by mixing together fish oil, petroleum oil, and linseed oil, in about the proportions stated, with or without the addition of the mineral extract.