

*Claim.*—The combination of mechanism (for catching and releasing the link) referred to as the swinging pin (*h, i, l, m, V, n, fig 1*) and the trigger (*o, p, q, r, s*) pivoted in a slot in the lower side of a tubular drawhead (*A, B, C, D, fig 1*), as set forth.

No 3963. ROBERT W. MCGEE, East-Oxford, Ont., 16th October, 1874, for 5 years: "Brick Machine." (*Machine à brique*.)

*Claim.*—1st. The combination of the endless link chain *A*, with the gearing wheels *B*, and *C*, and the adjusting roller *D*, revolving arms *E*, and friction roller *F*, as set forth; 2nd. The pressing shaft *U*, with the adjusting plate *I*, in combination with the endless link chains *A*, gearing wheels *B*, and *C*, adjusting roller *D*, revolving arms *E*, and friction roller *F*, as set forth; 3rd. The attachment of the cross bar *K*, to the covering plates *L*, in combination with the lever *O*, weight *P*, and connecting chain *N*, as set forth.

No 3964 EDWARD H. ASHCROFT, Lynn, Mass., U. S., 16th October, 1874, for 5 years: "Safety Valve." (*Souape de sûreté*.)

*Claim.*—The combination of a safety valve having a curved lip for deflecting the escaping steam downwards with chambers surrounding the valve with the exception of its upper and lower ends and provided with one or more communicating passages as described, so as to direct the steam first downwards and then upwards in the manner set forth.

No. 3965 THOMAS JONES, Harewood House, near Tavi-lock, Eng., 16th October, 1874, for 5 years: "Process of Preventing Dry Rot and Decay in Timber, and for Rendering the same Uninflammable." (*Procédé pour empêcher la pourriture sèche et la carie du bois et le rendre incombustible*.)

*Claim.*—The process of rendering timber for building and other purposes more durable and uninflammable by impregnating it with a solution of Tarsate of soda, without other substances which neutralize or destroy its effects, as described.

No. 3966. JOHN T. HENNAMAN, Baltimore, Md., and DANIEL O. SALMON, Syracuse, N. Y. U. S., 16th October, 1874, for 5 years: "Cigar Machine." (*Machine à cigares*.)

*Claim.*—1st. The combination with the apron *I*, of a roller *F*, supported above the table without any connection from below the latter on that side, on which the point of the cigar is formed, the whole arranged as described, to wrap a cigar while its head or point projects beyond the table and apron in convenient position for manipulation by the operator during the rolling process; 2nd. The combination of the roller *F*, the apron *I*, adapted to form a right on either side of said roller, and the cavities *M, M*, all arranged as described for the purpose of wrapping right or left hand cigars by a movement in either direction; 3rd. The gauge plate *H*, in combination with a table, roller, and apron, constructed, arranged, and operating as specified.

No. 3967. NOE LEMIZRE, Montreal, Que., 16th October, 1874, for 5 years: "Mortising, Boring and Drilling Machine." (*Machine à mortaiser, percer et forer*.)

*Claim.*—1st. The projecting driving head *C*, 2nd. The spring check-bolt or stop *F*, 3rd. The combination of the driving head *C* and spring check-bolt, or stop *F*, with the standard *A*, treadle *B*, spindle *D*, boxes *L, E*, and *E*, stop bars *G, G*, table *H*, screw wheel *K*, gears *L, L*, cone-pulley *M*, and crank *O*, the whole combined and arranged as described.

No. 3968. JOHN I. THORNYCROFT, London, Eng., 16th October, 1874, for 5 years: "Vessel Propeller." (*Propulseur de vaisseaux*.)

*Claim.*—The improved form of screw propeller described and illustrated in the drawing.

No. 3969. JOSEPH L. O. VIDAL, Lothinière, Que., 22nd October, 1874, (Extension of Patent No. 109,) for 5 years: "Improvements on Ploughs" (*Perfectionnements aux charrues*.)

*Claim.*—A model or pattern to cast mould boards of ploughs having a widened base with the plough itself or separately, that is to say, it enables to cast a mould board having a widened base (over half an inch) in one piece, or to make the mould board and the widened base separately and then adapting the one to the other by means of cleats and nuts.

No 3970 WILLIAM MUIR, Montreal, Que., 14th October, 1874, (Extension of Patent No.

94,) for 5 years: "Multiple Sewing Machine." (*Machine à coudre multiple*.)

*Claim.*—1st. The entire machine in its novel arrangement of frame *a*, driving shaft *b*, cams *c*, and *d*, pattern disc *d*, rod *d*, ratchet wheel *d*, shaft *d*, bevelled wheel *d*, cam *e*, ratchet wheel *e*, slotted rods *e*, multiple catch *e*, shaft *e*, elongated bars *e*, pinion wheel *e*, feed rollers *e*, break *e*, skeleton ring *e*, moveable frame *f*, rollers *f*, brackets *f*, braces *f*, tension rollers *f*, frame *f*, pattern disc *f*, sliding bar *f*, slotted lever *f*, rod *f*, brace *f*, wedge *f*, sliding rod *f*, fixed arms *f*, brace *f*, shuttle carriage *f*, carrying rollers *f*, fixed plates *f*, end frames *f*, angle iron supports for shuttles *f*, shuttle frame *f*, castings *f*, division plates *f*, spring *f*, grooves *f*, slide *f*, cover plates *f*, stud pins *f*, shuttles *f*, needle bar *f*, guides *f*, friction rollers *f*, connecting rods *f*, needles *f*, tension frame *f*, friction bearings *f*, shaft *f*, left rods *f*, bar *f*, spools *f*, brackets *f*, friction loop wire *f*, spool rack *f*, feed roller *f*, chain *f*, take up roller *f*, groove pulley *f*, friction rollers *f*; 2nd. The novel improvement in the shuttle carriage *f*, by the movement or direct motion frame cams *c*, placed on driving shaft *b*, and timed to suit needle bar movement; 3rd. The novel improvement and combination in the shuttle frame *f*, of cast pieces *f*, *f*, division plates *f*, *f*, springs *f*, *f*, grooves *f*, *f*, slots *f*, cover plates *f*, *f*, stud pins *f*, *f*; 4th. The improvement in feeding apparatus in its novel arrangement of cam *e*, roller and multiple ratchet wheel *e*, with an enlarged and elongated boss *e*, moving with the internal frame *f*, laterally provided with double leathers and geared to the front feed rollers *e*; 5th. The improved apparatus consisting of rod *d*, ratchet wheel *d*, shaft *d*, bar *d*, lever *d*, etc., for producing a side or lateral movement for varying the pattern by means of discs *d*, and *d*; 6th. The improved apparatus consisting of pattern disc *d*, sliding bar *d*, slotted lever *d*, etc., for moving the whole internal frame *f*, laterally which also carries the cloth tension rollers *f*, feed movement rollers *f*, for the purpose of giving the pattern in its novel arrangement of discs *d*, and *d*, on one and the same shaft driven by one motion and at the same time regulating the feed; and automatically varying the pattern, and 7th. The novel wedge *f*, *f* its equivalent in any other position for regulating the feed, in its peculiar action.

No. 3971. ROBERT W. SOPER, London, Ont., 26th October, 1874, for 5 years: "Breech-loading Rifle and Gun." (*Carabine et fusil chargeant par la culasse*.)

*Claim.*—1st. The combination in a breech loading rifle or gun of the iron frame *B*, with the stock *A*; 2nd. The metal cap *S*, attached to the gun barrel and covering end of stock; 3rd. The plunger *O*, constructed as described, when fixed inside and protected by the frame and stock of a breech loading gun or rifle; 4th. The tumbler *P*, of the gun lock when constructed as described in combination with the plunger *O*, as set forth.

No. 3972. JAMES G. SCOTT, St. Thomas, Que., 26th October, 1874, for 5 years: "Safety Car-coupler" (*Attelage de wagons de sûreté*.)

*Claim.*—The hinged connecting link *D*, raised or lowered by means of the articulated arms attached at one end to the rocking shaft *C*, in combination with the pins *b*, and *b*, fixed upon the draw heads of the platforms, the whole constructed and operating as set forth.

No. 3973. WILLIAM H. COLLINS, Whitby, Ont., 26th October, 1874, for 5 years: "Stove-pipe Coupler." (*Lien de tuyaux de poele*.)

*Claim.*—1st. The application of the spring *C*, for the purposes described; 2nd. The grooves *d*, *d*; 3rd. The combination *C* of the spring *C*, grooves *d*, *d*, with projecting ends of the spring passing through holes in the pipes for the purposes described.

No. 3974. WILLIAM B. FRUE, Silver Islet, Ont., 26th October, 1874, for 5 years: "Machine for Washing or Separating the Heavier Ores or Metals." (*Machine à laver ou séparer les minerais ou métaux lourds*.)

*Claim.*—1st. The combination with the progressive motion of the endless travelling apron *B*, of a secondary agitating or shaking motion as described; 2nd. The outer frame *F*, with bearings *L*, in combination with the inner vibrating apron frame *B*, arranged and operating as described; 3rd. The apron frame *B*, yokes *H*, sliding shafts *B*, and collars *I*, in combination with the revolving crank shafts *E*, and connecting rods *E*, arranged and operating as described; 4th. The application to the endless travelling apron *B*, of raised flexible rubber flanges *b*, arranged and operating as described; 5th. The combination with the endless travelling apron *B*, of the driving drum *C*, and regulating pulley *G*, arranged and operating as described.

No. 3975. JACOB W. NEADS, Toronto, Ont., 26th October, 1874, for 5 years: "Boring Bar." (*Tige de foret*.)

*Claim.*—1st. The combination of boring bar with a turning lathe; 2nd. The combination and arrangement of mandrel *a*, *b*, *d*, *c*, hand wheel *b*, pulley *c*, ferrule *d*, connecting rods *a*, *n*, *n*, collars *f*, *f*, and ring *g*, as specified; 3rd. The head *e*, either with a bar *S*, or