

No. 1962. JOSEPH CLARK, Greenpoint, FRANK S. SMITH, New York, N. Y., and ABEL BREAR, Sangatuck, Ct., U. S., 8th July, 1875, for 15 years: "Improvements on Furnace Grate Bars." (Perfectionnements aux barres des grilles de fourneaux.)

*Claim.*—The described grate bar or section consisting of a series of longitudinal perforated arches *a*, as set forth.

No. 4963. JOHN C. CHASE, Rutland, Ohio, U. S., 8th July, 1875, for 5 years: "Washing Machine." (Machine à laver.)

*Claim.*—1st. The combination of rollers *a*, *b*, *c*, and plates *P*, *P*<sub>1</sub>, the lugs *p*, and bottoms *K*, *K*<sub>1</sub>, with elastic bands *O*; 2nd. The stirrup *p*, brace *i*, and nut *n*, in combination with the lug *i*, and projecting arms *f*; 3rd. The rollers *a*, *b*, *c*, with corrugations extending near to their ends, and terminating in the smooth friction *A*.

No. 4964. BENJAMIN R. WAGNER, Springfield, Dakota, (Administrator of James P. Edmonds, Rochelle, Ill., U. S.,) and PHEBE EDMONDS, Widow of the said J. P. Edmonds, 9th July, 1875, for 5 years: "Improvements on Churns." (Perfectionnements aux barattes.)

*Claim.*—1st. The T-shaped cutter *M*, and T-shaped dasher *B*, set cross wise to each other and forming the dasher, in combination with the dasher rod *K*; 2nd. The top piece *H*, in combination with the standard *C*, to work the dasher rod *K*.

No. 4965. JOSEPH FILION, St. Eustache, Que., 12th July, 1875, (Extension of Patent No. 502), for 5 years: "Stumping-machine." (Arache-souche.)

*Claim.*—A roof framed construction placed on four wheels having a cog-winch and tackle-blocks.

No. 4966. ASHLEY D. COLE, Toronto, Ont., 12th July, 1875, (Extension of Patent No. 458), for 5 years: "Turbine Water-wheel." (Turbine hydraulique.)

*Claim.*—1st. The shape of the bucket which is formed by dividing the space of the inside size of the bucket into certain parts, viz. vertically twelve parts, and horizontally eleven, and from the point one in the vertical line drawing a line to the point two in the horizontal line continuing these lines as shown in the drawing by dotted black lines, and they form the exact shape of the inside of the bucket. 2nd. Having one bucket more than the number of shoots; 3rd. Having the circumference of the wheel bevelled in such a manner that the weight of the wheels is in a great measure supported by the upward pressure of the water as shown.

No. 4967. ROBERT C. HARRIS, Dalhousie, N. B., 12th July, 1875, (Extension of Patent No. 594), for 5 years: "Machine for Clearing Snow from Railway Tracks." (Machine à enlever la neige sur les voies de railroutes.)

*Claim.*—The application and use of the contrivance called the screw lift for the purpose of elevating snow; the rotary fling applied in combination with the screw-lift, each operating as shown; also the combination of the scoop car screw lift and rotary fling.

No. 4968. CICERO D. VAN ALLAN, West Farnham, Que., 12th July, 1875, (Extension of Patent No. 590), for 5 years: "Improvements on Combined Churns and Washers." (Perfectionnements aux barattes et laveuses combinés.)

*Claim.*—1st. The adjustable cream bar *D*, or its equivalent; 2nd. The dash frame with wings *E*, constructed in the manner described to support the frame *b*, *h*; 3rd. The dash-bars *g*, *g*, or their equivalent being supported as described.

No. 4969. ALBERT L. BLACKMAN, Nashville, Ten., U. S., 14th July, 1875, for 5 years: "Improvements on the manufacture of

Wheels." (Perfectionnements dans la fabrication des roues.)

*Claim.*—1st. The combination with the piston rod *D*, die *E*, and mandrel *H*, of the die *E*, anvil block *G*, and escape hole *I*; 2nd. The combination of the mandrel *H*, provided with an eye-hole *A*, and tapering ends with the dies *E*, *E*<sub>1</sub>, escape hole *I*, and anvil block *G*.

No. 4970. ADOLPHUS DAVIS, Belleville, Ont., 14th July, 1875, for 5 years: "Machine for Lubricating the Cylinders of Locomotives and other Engines." (Machine à lubrifier les cylindres des locomotives et autres machines.)

*Claim.*—The combination of the tallow or oil-chamber *D*, plug *E*, connecting rods *F*, and *G*, levers *H*, and *J*, tallow valve *k*, outlets *L*, and *N*, valve chamber *M*, regulating-spindle *O*, check-nut *P*, springs *Q*, and washer *R*.

No. 4971. MARTIN HUBBELL, Mount-Kisco, N. Y., U. S., 14th July, 1875, for 5 years: "Improvements on Horse Collars." (Perfectionnements aux colliers de cheval.)

*Claim.*—The hames *A*, pivoted adjustably at the top and connected at the lower part by a pivoted adjustable-latch *D*, which slides with its forked end over the guide bolt *E*, and is locked thereon by a spring pawl *K*.

No. 4972. WILLIAM B. WRIGHT, Toronto, Ont., 14th July, 1875, for 5 years: "Improvements on Barber and Dentist's Chairs." (Perfectionnements aux chaises de barbiers et de dentistes.)

*Claim.*—1st. The shaft *C*, with attached pinion *E*, mounted on the back of the hind seat *A*, by the bracket piece *D*, and provided with the hand lever *G*, in combination with the pivoted rack bar *F*, attached to the lower stationary base *A*; 2nd. The spring hand lever *G*, attached to the shaft *C*, in combination with the flanged bracket plate *D*<sub>1</sub>, provided with the notches *d*<sub>1</sub>.

No. 4973. PATRICK BAKER, Lockport, N. Y., U. S., 14th July, 1875, for 5 years: "Sash-supporter and Lock." (Arrête-croisée.)

*Claim.*—1st. The screw *D*, having an urn *E*, for its head, said urn having a base *a*, scotia *b*, vase *c*, groove *d*, and a head *t*, in combination with the sash supporter and lock *B*.

No. 4974. GEORGE HENRY, Lennoxville, Que., 14th July, 1875, for 5 years: "Regulator for Steam Boiler Feed Apparatus." (Régulateur d'appareil d'alimentation de chaudière à vapeur.)

*Claim.*—The vapor chamber *D*, float *E*, stem *a*, valves *c*, *c*, valve chamber *F*, having steam passage *d*, pipe *G*, valve seats *i*, *i*, and branch *g*, in combination with pipe *I*, and plug *K*.

No. 4975. EDWIN FULLER, Caledon, Ont., 14th July, 1875, for 5 years: "A Horse-bridle." (Une bride de cheval.)

*Claim.*—1st. The combination of head piece *B*, *B*, checkstraps *E*, *E*, overdraw and check-line *A*; 2nd. The application of the screw to the running loop *F*.

No. 4976. MORRIS FOX, New York, U. S., 14th July, 1875, for 5 years: "Reversible Cap." (Casquette à revers.)

*Claim.*—A reversible cap composed of double folded rear crown section, supplementary swinging front crown piece and double folding front piece.

No. 4977. JOHN E. FINLEY, Memphis, Ten., U. S., 14th July, 1875, for 5 years: "Hand Corn Sheller." (Egrénoir de blé-d'inde à bras.)

*Claim.*—The flexible back *D*, plates *A*, *A*, serrated as shown, the rivets *B*, *B*, *B*, and loops *C*, *C*.