

No. 7477. Improvements on Sewing Machines.

(Perfectionnements aux machines à coudre.)

William Muir, Montreal, Que., 18th May, 1877, (Extension of Patent No. 1163), for 5 years.

Claim.—1st. The novel combination of the hub *d*, cam *e* and sleeve *f*, ratchet with pawl *m*, disc *l* and connecting rod *n*; 2nd. The novel combination of the hub *d*, groove wheel *n*, sleeve *g*, cam *q* and pin *p*, disc *k*, ratchet wheel *i*, pawl *m* and connecting rod *n*.

No. 7478. Improvements on Road Scrapers.

(Perfectionnements aux éboueurs de chemins.)

William Murphy, Topeka, Kansas, U.S., 18th May, 1877, for 5 years.

Claim.—1st. The curved scraper *b* constructed with the eyes or loops *b* *b* and holes *b* *b*, and adapted to be placed on and operated by a triple armed frame *c* with capability of adjustment at any desired angle; 2nd. The combination with a carriage *A* and scraper *b*, hinged to the axle *a* with capability of a vertical swinging movement, of a ratcheted lever *e* hinged to the bolts at in front of the axle *a* and arranged and adapted to automatically catch and hold the scraper *b* clear of the ground.

No. 7479. Improvements on Steam Valves.

(Perfectionnements aux soupapes de vapeur.)

Jonathan Neff, Petersburg, Ont., 18th May 1877 for 5 years

Claim.—The steam chest *A*, the four-headed balanced piston valve *B* with the relief ports *P* *P*, the caps *I* *I* and screw *H*.

No. 7480. Improvements on Sheet Metal Cans. (Perfectionnements aux boîtes métalliques.)

Louis V. Sone, New York, U.S., 18th May, 1877, for 15 years.

Claim.—1st. A sheet metal can, one or both heads of which are formed by bending over parts of the blank or blanks which form the body, and uniting the edges of the parts thus bent over into lock seams traversing the face of the head. 2nd. A sheet metal can, both heads of which are formed either wholly or in part by bending over portions of the blank or blanks which form the body, and uniting the edges of the parts thus bent over into seams traversing the face of the heads. 3rd. A sheet metal can, the head or heads of which are formed by uniting the edges of the blank or blanks into upright seam or seams, which stand out at right angles with the surface of the heads.

No. 7481. Improvements on Direct Acting Engines. (Perfectionnements aux machines à simple effet.)

Edward S. Winchester and Harvey K. Flagler, Boston, Mass., U.S., 18th May, 1877, for 5 years.

Claim.—An engine having its valve carried with the piston and operated by the momentum imparted thereto by the movement of the piston, in combination with the cylinder *A* provided with suitable steam passages, the piston *I* having the valve *M* fitted in a cavity therein whereby the valve is operated wholly or mainly by the momentum imparted to it by the movement of the piston. In combination with a valve arranged to be operated by the momentum imparted to it by the movement of the piston, the passages

h, *k* *l* whereby steam or air is admitted to move or sustain the valve and afterward allowed to escape. A cylinder *A* provided on its exterior with a screw thread fitting into a nut or holder *G* provided with a corresponding thread and secured to the column or stand which supports the machine. The nut or holder *G* of spherical form in combination with a clamp or socket *D* adapted to receive it. Rotating the cylinder by a ratchet mechanism operated by an eccentric on the shaft which rotates the piston. Pivoting the ratchet or pawl *h* to a bar or rod which slides through the holder or nut through which the cylinder is fed; The hollow collar *K* in communication with the steam or air passages in the cylinder head and moving longitudinally with the cylinder but not rotating therewith, in combination with one or more passages for conducting the steam or air into the cylinder; The cylinder *A* having a shoulder at its rear end, in combination with the cylinder head *H* forced against it by means of the screw sleeve *i*; An engine having one or more buffers located within an extension of the cylinder and outside of the steam chamber. The buffers composed of rubber or elastic rings *m* *n* with an interposed metallic partition in combination with the piston *I* having shoulders thereon arranged to strike against the buffers on opposite sides of the partition.

No. 7482. Improvements on Hand Fire Engines. (Perfectionnements aux pompes à incendie.)

Valentine Straube, Waterloo, Ont., 18th May, 1877, for 5 years.

Claim.—1st. The combination of the twin exhauster pumps *B* horizontally placed in a portable tank *A* *vice versa* and having connection with a receiving chamber *O* by tubes *N* provided with valve *P*. 2nd. The combination of the horizontally operating twin pumps *B*, working bar *W*, rocker *u* and lever *T* for working the piston rods *J* reciprocally in opposite directions. 3rd. The twin pump cylinders *B*, each having a valve *L* and air tube *N*. 4th. The twin cylinders *B*, each having a diaphragm *F* with valve *G* and inlet *I* with a cylinder *H*, formed by the perforated end plates *E*, flanges *G* and bed pieces *D*, for excluding foreign matter from entering and choking the pumps.

No. 7483. Machine for Making Match Sticks.

(Machine à faire le bois des allumettes.)

McClintock Young, Frederick Md U S., 18th May, 1877, for 5 years.

Claim.—1st. The combination of the independent pawls or fingers *T* in series upon the same vibrating stud or arm with the perforated plates *S*, so as to insure the feeding abrad of sand plates. 2nd. The combination of the rocking frames *D* *E*, bar *F* and projecting arm *d*, and coupling bars *G* for the purpose of imparting four motions to the block feeding mechanism; 3rd. The combination with the four motion feed of the knife edge feeding points. 4th. The block holding mechanism provided with the separate points *t* for supporting the wood that is to constitute the match stick when cut off; 5th. The plate *S* provided with the handles *u*, coupling bar *v* and stud or pin *w*.

No. 7484. Shoe Sole Buffer.

(Tampon de semelle de soulier.)

Freeman Winslow, Salem, Mass. U S. 18th May, 1877, for 5 years.

Claim.—The supporting wooden cone frustrum *A* and the felt disc or conic frustrum *B* and its abrasive covering *a*, also the combination of the shank *C*, the wooden frustrum *A*, the felt frustrum *B* and the abrasive covering *a*.

Lists of Patents issued up to 18th June, 1877, but not yet Officially published in the Patent Office Record.

No. 7485. P. K. Seierick, Albany, N.Y., U.S.A., "Baling Press," 18th May, 1877.

No. 7486. J. W. Sharret, Portsmouth, Va. U.S.A., "Reefing Fore-and-Aft Sails of Vessels," 18th May, 1877.

No. 7487. H. P. Malone, Cleveland, Ohio, U.S.A., "Oil Stove," 18th May, 1877.

No. 7488. J. Murphy, Huntingdon, Que., "Combined King-Bolt, Double Clip, and Bolster for Vehicles," 18th May, 1877.

No. 7489. W. C. Carlton, Boise City, Idaho Ter., U.S.A., "Bolt and Bar Cutter," 18th May, 1877.

No. 7490. O. P. Cobb, Aurora, Ind., U.S.A., (Assignee of W. Haddock, Husborg, Penn. U.S.A.), "Nail Cutting Machine," 18th May, 1877.

No. 7491. J. S. Hall, Monterey, Cal., U.S.A., "Sewing Machine," 18th May, 1877.

No. 7492. E. Moore, Canterbury, N.B., "Burglar Proof Lock," 18th May, 1877.

No. 7493. J. C. Steele, Alma, Ont., and J. W. Anderson, Elora, Ont., "Scow Fence," 18th May, 1877.

No. 7494. S. Otley and J. Otley, Chicago, Ill., U.S.A., "Cement," 18th May, 1877.

No. 7495. J. L. Ryder, Islesborough, Maine, U.S.A., "Rein Supporter," 18th May, 1877.

No. 7496. L. C. Warner, New York, U.S.A., and J. D. V. Warner, Bridgeport, Conn., U.S.A., "Corset," 18th May 1877.

No. 7497. O. F. Boomer, and H. R. Randall, Brooklyn, N.Y., U.S.A., "Gas and Air Carburettor," 21st May, 1877.

No. 7498. D. H. Burrell, Little Falls, N.Y., U.S.A., and J. D. McLachen, Galt, Ont., "Beet Hoop," 21st May, 1877.

No. 7499. J. E. Howard, and C. E. Howard, Reading, Mass., U.S.A., "Metallic Hair Brush," 1st June, 1877.

No. 7500. A. H. Dixon, Toronto, Ont., "Mirror Sign," 1st June, 1877.

No. 7501. J. Fraser, Charlotteville, Ont., "Combined Drill and Broad Cast Sowers," 1st June, 1877.

No. 7502. C. Robinson, Eau Claire, Wis., U.S.A., "Plow Clevis," 1st June, 1877.

No. 7503. G. B. Izzard, Hamilton, Ont., "Spring Bed Bottom," 1st June, 1877.

No. 7504. G. A. Conlon, Wingham, Ont., "Rubber Spring," 1st June, 1877.

No. 7505. H. T. Davis, Sherman, Texas, U.S.A., "Quilting Frame," 1st June, 1877.

No. 7506. J. G. Hallas, and W. N. Weedon, Waterbury, Conn., U.S.A., "Lamp Burner," 1st June, 1877.

No. 7507. G. Boivin, Montreal, Que., "Moccasin," 1st June, 1877.

No. 7508. S. P. Bane, Chatham, Ont., "Toe Weight Shoe," 1st June, 1877.

No. 7509. D. Maxwell, Paris, Ont., "Harvester Rake," 1st June, 1877.

No. 7510. J. I. Pellerin and H. Pellerin, Montreal, "Coupe-Cuir à la Pignire," 1st June, 1877.