

burning stove, a metal reservoir B, the lower portion of which is without seams or joints; 10th. The combination of the drum D and its openings e, with the inverted dome or cone G; 11th. The combination of the drum E, inverted cone or dome G, a dome or cone F, and annular space f; 12th. The combination of the drum E, its two domes or cones, and annular space f, with the openings e in the drum; 13th. The combination of the drum E, its inverted cone or dome G, and the openings e<sup>1</sup> and e<sup>2</sup> above said cone or dome; 14th. The combination of the cooking drum with the chamber having walls extending in one direction to the edges of an opening in the drum; 15th. The combination of the cooking drum with the jacket P; 16th. The combination of the heating or cooking drum, and the base A, with a turn buckle d<sub>3</sub> or other equivalent movable support.

### No. 7942. Musical Flying Top.

(*Toupie musicale volante.*)

Elisha Mets, Rochester, N.Y., U.S., 27th September, 1877, for 5 years.

*Claim.*—1st. The bisected conical body B B<sub>1</sub> held together by the stem P forming the pintle p<sub>1</sub> and the wings W; 2nd. The body B B<sub>1</sub> and wings W, in combination with handle H having orifice o, perforations n and socket s; 3rd. The wings W provided with the whistle l, in combination with the rim G.

### No. 7943. Process for the Manufacture of Lime and Cement.

(*Procédé de fabrication de la chaux et du ciment.*)

Uriah Cummings, Buffalo, N. Y., U. S., 27th September, 1877, for 5 years.

*Claim.*—The injection of a carbonized air spray directly upon the stone at a red-heat, and subsequently as specified.

### No. 7944. Improvements in Animal Traps.

(*Perfectionnement aux ratières.*)

John H. Morris, Seward, Neb., U.S., 27th September, 1877, for 15 years.

*Claim.*—1st. The combination of the hinged gate B and tilting platform C with the end or ends of passage A; 2nd. The combination of the passage D, box E, and drop gate F, with the passage A, provided at one or both ends with a hinged gate B and a tilting platform C.

### No. 7945. Hydro-Carbon Burner and Gas Generator.

(*Poêle à hydro-carburé et générateur à gaz.*)

Charles Holland, Chicago, Ill., U. S., 27th September, 1877, for 5 years.

*Claim.*—1st. The dome-shaped retort A, provided with the coiled pipe I arranged on the top and ends of the retort, and communicating with the gas receiver M; 2nd. The dome-shaped retort A, in combination with the induct pipes K L N, steam-pipe G, coiled pipe I, gas receiver M having outlet pipe J, pipe H having burner e and the upper burner O; 3rd. The steam-pipe G perforated on its upper surface, and provided with the union joints or couplings P.

### No. 7946. Improvements in Measuring Rules.

(*Perfectionnements dans les règles de mesurage.*)

Emery D. Waterbury, Rockford, Ill., U. S., 27th September, 1877, for 5 years.

*Claim.*—The combination of the pieces A and B, stationary clasp C and swivel clasp D, with screw a and thumb-nut G.

### No. 7947. Improvements on Oil Stoves.

(*Perfectionnements aux poêles à pétrole.*)

David Shields, Sing-Sing, N.Y., U.S., 27th September, 1877, for 5 years.

*Claim.*—1st. The combination of the heating or cooking drum, and its V-shaped projections i, with bearings on the base for the said projections; 2nd. The combination of the reservoir B, perforated casing h and plate H; 3rd. The combination of the bottom plate or diaphragm I, the two domes D Dr, with intervening air space and air passages d d<sub>1</sub>; 4th. The combination of the drum E having near its upper edge openings e with the convex cap Et, with a central depression S.

### No. 7948. Improvements in Double-Acting Hinges.

(*Perfectionnements aux pentures à double-action.*)

Ashel A. Stimson and Charles T. Sabin, Montpelier, Vermont, U.S., 27th September, 1877, for 5 years.

*Claim.*—1st. The plates A A', each having upon one side a pintle and upon the other side a slotted knuckle or socket, in combination with the links or jointed rod B B', having a stop f bearing against the rear side of the plate A, and provided with a spring h bearing against the rear side of the plate A'; 2nd. The two-part double-acting spring hinge, consisting of plates or leaves A A', one having the pintle a upon its upper surface, and directly below the same slotted knuckles or sockets at, and the other a similar arrangement a<sup>2</sup> at<sup>2</sup> and slotted knuckles or sockets a<sup>3</sup> at<sup>3</sup> upon its lower surface, in combination with suitable connecting mechanism; 3rd. A hinge plate having lateral flanges embracing the jamb, and angular flanges abutting against the door casing; 4th. In a double-acting hinge, the leaves A A' provided with the fixed flange C and the adjustable flange C'; 5th. The hinge leaves A A' having the flanges C C', rendered adjustable by means of the perforated ears l, slots m m, and screws n n.

### No. 7949. Improvements on Lace Fastenings.

(*Perfectionnements aux willets de chaussures.*)

Thomas A. McDonald, Durham, N.S., 27th September, 1877, for 5 years.

*Claim.*—The combination of the lace A passing spirally through the eyeslets G in the flap F, in combination with and passing over the hooks C, and fastened by the fastener D.

### No. 7950. Improvements in Ice Creepers.

(*Perfectionnements aux crampons de chaussures.*)

Samuel Horsford, Halifax, N.S., 27th September, 1877, for 5 years.

*Claim.*—1st. The joints E, swivel-joints F, combined with springs G and sole-fasteners C; 2nd. The heel frame B with swing joint J, heel fastener D and heel fastening points K, combined with points H, screw fastener I and sole frame A.

### No. 7951. Improvements on Telegraph Alarm-Boxes.

(*Perfectionnements aux boîtes à télégraphe d'alarme.*)

Sigismund Mohr, Quebec, Que., 27th September, 1877, for 5 years.

*Claim.*—1st. The switch F or its equivalent, in combination with the connections H H; 2nd. The combination of a belt, or sounder, with the switch F, spring F<sub>1</sub>, connections H H and insulators I, with any district alarm telegraph machine.

### No. 7952. Spring-Bed Bottom.

(*Fond de lit à ressorts.*)

Harcourt Mott, (Assignee of William M. Edmans), Troy, N.Y., U.S., 2nd October, 1877, for 5 years.

*Claim.*—1st. The forked or branched wire springs D having their lower ends bent upward, to enter the lower sides of end rails B of the bed bottom, having their middle parts curved inward, and their angles bent upward to enter holes in the spring slots of the bed bottom; 2nd. The combination of the wire springs D and the cleats E, with the end rails B, the side rails A and the spring slots C.

### No. 7953. Improvements on Cigarette Machines.

(*Perfectionnements aux machines à cigarettes.*)

William Buchanan and David C. Lyall, N.Y., U.S., (Assignees of David W. De Forest), 2nd October, 1877, for 5 years.

*Claim.*—1st. A flexible reciprocating apron D and the combination of belts for giving motion to rollers d d'; 2nd. The belts K, having one end attached to a drawing lever B and the opposite to a yielding means S, in combination with rollers d d' and apron D; 3rd. The adjustable tension frame C, in combination with apron D and frame B E; 4th. The rod L, foot rack T, in combination with tension frame C, frames B E and apron D; 5th. The belts K K<sub>1</sub>, in combination with frame B and springs S.

### No. 7954. Improvements in Doors.

(*Perfectionnements dans les portes.*)

Robert W. Semple and George A. Shaw, Toronto, Ont., 2nd October, 1877, for 5 years.

*Claim.*—A door stop arranged to permit the door connected therewith to open to the outside of an apartment in the ordinary way, and mounted on the door jamb in such manner that upon a certain given outward pressure being applied to the door, the stop will be forced clear of the opening, permitting the door to open to the outside.

### No. 7955. Improvements on Fruit Pickers.

(*Perfectionnements aux cueilleurs de fruits.*)

John Sayer and Augustus Gerlach, Monroe, Mich., U. S., 2nd October, 1877, for 5 years.

*Claim.*—1st. The combination of the handle A, slide rod B, spring jaws C, connected by inside links with the rod, the cutter D, the fixed handle-hoop E and the tube F; 2nd. The combination of the stop-pins b and straps d, the former on slide rod B and the latter on handle A.

### No. 7956. Improvements on Railway Brakes.

(*Perfectionnements aux freins de railroutes.*)

Albert F. Gus and George F. Field, Boston, Mass., U.S., 2nd October, 1877, for 5 years.

*Claim.*—1st. The combination with the spool, the brake-chain and brake-lever to operate the brake-beam and shoes, of an auxiliary brake-lever loosely connected with the chain, and interposed between it and the brake lever; 2nd. The combination with the clutches and their operating levers o p, of the pivoted horizontal lever z and the links u v, connected therewith at different sides of its fulcrum, to operate the clutch-levers positively and simultaneously; 3rd. The combination with the car-body and sheaves h j, of the brake chain, its winding spool, the auxiliary brake-lever connected with the main brake-lever and the pivoted sheave i, arranged on a bight of the chain between the sheaves h j; 4th. The application to the axle of a caboose car, of a spool and chain and clutches, to apply the brakes to the cars in operative connection with caboose car and the chain carried by its spool; 5th. The combination of the following elements, viz: a spool, loose upon one of the axles of a car, suitable friction-clutch mechanism for connecting said spool and axle to rotate together, brake-beams operated by reason of their connection with said spool, a rod extending longitudinally under the car and provided with loose drum and fixed friction collars, and mechanism to rotate the rod from an axle, and devices by means of which the rotation of the rod is made to cause the application of the friction-clutches to the spool, to thereby operate the brakes; 6th. A shaft extended longitudinally under the car, and provided with irregular ends and sockets to rigidly connect together shafts under different cars, and with universal joints at suitable intervals, and a loose drum frictionally connected to the shaft, in combination with mechanism by means of which the rod can be rotated from one of the axles of the locomotive or tender; 7th. The combination of the axle, the pinion 26, the loose pinion 27, the shaft 16, and clutching mechanism to cause the shaft 16 to rotate with the pinion 27; 8th. In combination of the shaft 16, axle d<sub>3</sub>, bevel-gears c<sub>3</sub> d<sub>4</sub>, adapted to be engaged or disengaged, gears a<sub>4</sub> b<sub>5</sub>, and a shaft and hand-wheel 37, to operate the brakes by hand; 9th. The combination of the drum 15, collars 17, 18, shafts 16 and nut.