

**Claim.**—1st. The self-sealing cover for jars made up of a stamped metal cover, an intermediate plate and a washer. 2nd. In combination with a self-sealing cover for jars, a loose plate of metal, or other substance, of a configuration corresponding to the cover, placed between said cover and the rubber washer. 3rd. In combination with the stamped metal cover A and a projection or groove on the neck of the jar, wires *a* with points *a'*.

**No. 13,383. Combined Shirt Front and Cuffs.**  
(*Devant et manchettes de chemise combinés.*)

George P. Warner, New York, N.Y., U.S., 8th September, 1881: for 5 years.

**Claim.**—1st. A cuff provided with button holes D D<sub>2</sub> and E E<sub>2</sub>, the latter being placed exactly opposite to the former, curved extension A, slit B and curve C. 2nd. A combined shirt front and cuffs, in conjunction with dotted lines G, whereby the same may be reversed when serving as front or bosom.

**No. 13,384. Improvements in Cooking Stoves.**  
(*Perfectionnements aux fourneaux de cuisine.*)

Dennis Moore and William A. Robinson, Hamilton, (Assignees of James Norris, St. Catharines,) Ont., 8th September, 1881: (Extension of Patent No. 6,533.)

**No. 13,385. Improvements on Heating Boilers.**  
(*Perfectionnements aux calorifères à vapeur.*)

William B. Malcolm, Toronto, Ont., 13th September, 1881: for 5 years.

**Claim.**—1st. A boiler A for water or steam heating purposes, composed of the stand E on which the boiler is placed, provided with the appliances for supporting the grate D<sub>4</sub>, and with the necessary doors for getting access to the interior thereof, and of four or more water and flue sections A B C D placed one above the other and having a self-feeding coal chamber A<sub>4</sub>, a fire chamber D<sub>1</sub>, traverse flues A<sub>10</sub> B<sub>1</sub> B<sub>2</sub> C<sub>1</sub> D<sub>1</sub>, the vertical flues A<sub>2</sub> B<sub>2</sub> D<sub>1</sub>, the water spaces A<sub>3</sub> B<sub>3</sub> C<sub>3</sub> D<sub>3</sub>, and water ports W<sub>1</sub> W<sub>2</sub> W<sub>3</sub> W<sub>4</sub> W<sub>5</sub> A<sub>8</sub>. 2nd. In combination with the boiler A, the cone-shaped grate D<sub>2</sub> and swivelled cross bar *a*.

**No. 13,386. Improvements on Water Tubing.**  
(*Perfectionnements aux tuyaux hydrauliques.*)

William F. Moulton, Jericho, Vt., U.S., 13th September, 1881: for 5 years.

**Claim.**—The internal enlargement of the extremities of each section of a water-pipe or tubing, so as to avoid the possibility of any objectionable contraction of the channel or bore of the tubing, caused by the expansion or swelling of the pipe at its ends or tenons.

**No. 13,387. Improvements on Pruning Shears.**  
(*Perfectionnements aux sécateurs.*)

Joseph L. Haycock, Cataragui, Ont., 13th September, 1881: for 5 years.

**Claim.**—The steel plate H, in combination with the concave jaw B of the shears, said plate extending from the front or outer end of the jar, to rearwardly of the pin G.

**No. 13,388. Improvements on Sewing Machines.**  
(*Perfectionnements aux machines à coudre.*)

George W. Darby, Hamilton, Ohio, U.S., 13th September, 1881: for 5 years.

**Claim.**—1st. The combination with the frame spring J of the cheek shoulder K upon the upper surface thereon. 2nd. The combination of the motion lever B having the tail piece C, and the ruffler lever D having the rigid stop E and adjusting stop screw F. 3rd. The combination of the motion lever B, its tail piece C, the ruffler lever D, its stops E F, and the rearward projection G of the ruffler I.

**No. 13,389. Improvements on Life Rafts.**  
(*Perfectionnements aux radeaux de sauvetage.*)

Charles W. Woolsey, Jersey, N.J., U.S., 13th September, 1881: for 5 years.

**Claim.**—The combination, in a life-raft, of the buoyant elongated ring A, the frames B B clamping said ring firmly between their ends, and the tie bolts C incased in wood and serving to connect said frames.

**No. 13,390. Improvements on Swinging Gates.**  
(*Perfectionnements aux barrières tournantes.*)

Nathan H. Long, Muncie, Ind., U.S., 13th September, 1881: for 5 years.

**Claim.**—1st. In an automatic gate hinge mechanism, an intermediate bar I between the two halves of the upper hinge, said bar being constructed by means of an opening larger than the pivot on which it rests, to recede when the mechanism is operated and engage with catches upon the gate post. 2nd. The combination of the vertical rod E having horizontal stud *e* therein. 3rd. An automatic gate hinge mechanism, in which a pivot passes through a heart-shaped or elongated slot in a bar I, a projection upon the rear gate upright A, which comes in close proximity to said pivot. 4th. An intermediate bar I, between the two upper hinge parts, having a heart-shaped orifice therein, through which the stud in which it moves passes. 5th. The combination of the trip rods H, rods G, vertical rod E, hinge parts *a* and *b*, intermediate piece I and catches *i*. 6th. The combination of the trip rods H, rod G, vertical rod E, hinge parts *a* *b*, and horizontal stud *e* working between the parts *a* *b*.

**No. 13,391. Improvements on Treadles.**  
(*Perfectionnements aux marches.*)

Francis M. Weaver, William A. Hance, Springfield, James B. Lewis and Joseph H. Neily, Belleville, Ohio, U.S., 13th September, 1881: for 15 years.

**Claim.**—1st. The combination, in a hanging swinging treadle, of the crank arm C with the bearing arms A and the supporting hangers D

therefor, the said parts having the relation to each other and to the treadle plate or foot rest B. 2nd. In a sewing machine treadle, the combination, with the lower frame bracing rod *a*, of the treadle supporting parts consisting of the bearing arms A mounted upon, and extending forward of and above said frame rod, the hangers D supporting said bearing arms upon the end frames, and the separate crank arms C adapted to carry said treadle plate free of said frame rod. 3rd. The treadle plate of a hanging swinging treadle for sewing machines having the slots *g g* and the side-shouldered recesses or guides *i i*, in combination with separate cranked arms *c c* carrying the treadle plate B and secured thereto by the screw bolts *h h*, and the said shouldered guides. 4th. The combination, with a sewing machine treadle and the pitman rod, of the pitman connection consisting of the bent arm E and the adjustable wrist pin section *r r*. 5th. As a means for connecting the treadle with the pitman rod of a sewing machine, the bent arm E having a rib or bead *e* fitting into a corresponding groove *m* in the treadle plate and secured thereto by a screw bolt, the bent part of said arm being formed with a slot *n* and an under groove, and an adjustable wrist pin attachment *r r* clamped within said groove. 6th. As a means for adjusting the relation of the treadle connection with the pitman rod of the balance wheel, the hangers D D provided with perforations *f*, in combination with the bearing arms A A and the bolts *c*, the said hangers having a fixed relation with the end frame, and the said bearing arms being adjusted vertically, and in such adjustment turning with the frame rod *a* upon which they are secured. 7th. The bearing arms A having the perforations *f*, and adapted for adjustment upon the end frames. 8th. In combination, a laterally adjustable treadle, means for effecting its vertical adjustment in relation to the throw of the crank pin of the balance wheel, and means for effecting the adjustment of the treadle wrist pin connection with the pitman rod. 9th. A hanging swinging treadle for sewing machines consisting of the treadle plate B having slots *g g* and shouldered guides *i i*, the separate crank arms C C secured in said treadle plate guides, the bearing arms *a a* fixed upon and projecting from the lower frame rod *a*, the hangers D D having a fixed relation with the end frames and adjustable connections with said bearing arms, an adjustable wrist pin connection *r r* for the pitman rod, and the springs.

**No. 13,392. Improvements on Evaporators for Fruit and Vegetables.**  
(*Perfectionnements aux séchoirs pour les fruits et les légumes.*)

Edgar Ker, Pelham, Ont., 13th September 1881: for 5 years.

**Claim.**—1st. The arrangement of the drawers B B C composed of wood and metal, in a rectangularly shaped frame made of wood and cased with metal, and glass and wood to which is attached a furnace of peculiar construction, and a heat regulator which occupies a place in the front elevation *e* as a drawer and does, in connection with the sliding or swinging doors *g g*, give the operator full control over the workings of the evaporator, the whole being covered with a peculiarly shaped cover A.

**No. 13,393. Improvements on Type Writing Machines.**  
(*Perfectionnements aux machines à écrire en caractères d'imprimerie.*)

Thomas Hall, Brooklyn, N. Y., U. S., 13th September 1881: for 5 years.

**Claim.**—1st. A plate A adapted to move intermittently, a type form attached thereto, and movable to bring any given letter into alignment and mechanism for moving said plate and type form. 2nd. An elastic type form in combination with a plate having an opening therein, said form being movable to bring any given letter into alignment with the opening and permitting any given letter to be pressed by a suitable plunger upon the paper through the openings. 3rd. The combination of the movable type form, the plate having openings therein, the ink cushion and mechanism for pressing the type upon the ink cushion and paper. 4th. The combination of the elastic type form, the plate having an opening therein and the stud J. 5th. A vertically movable plate *a*, provided with an index plate upon its upper surface, in combination with a type form attached to its underside and movable thereon, to bring any given letter into alignment, mechanism for moving said type form and for directing said movement in connection with said index plate, and means for pressing the type upon the paper by the depression of said plate. 6th. The hinged plate A carrying stud J, having a movable type form carried upon its under surface and an index plate upon its upper, in combination with an arm P connected to said type form and adapted by means as described, in connection with the index plate, to bring any given letter into alignment and also adapted to depress said plate A and force the type upon the paper. 7th. In combination with the type form and with the plate A, the link mechanism H H M M, and the intermediate frame K. 8th. The combination of the plates A B on the rod R, adapted to slide thereon, said plates carrying the printing mechanism. 9th. The combination of plates A B, the upper carrying the movable type form and having a spring between said plates. 10th. The combination of the independently hinged plates A B, rod R and spacing mechanism operated by the movement of the upper plate. 11th. In combination, the rod R having a cylindrical surface and teeth, the plate A hinged thereon, and the barrel pivoted on said plate and provided with a spring, the said barrel having cogs to mesh with the teeth upon the rod, whereby vertical motion is permitted to said plate without interfering with the action of the spring. 12th. The combination of the adjustable bar N, of the plate B, and the bar *g*. 13th. The combination of the levers L Y and the spring X, with its adjustable stop. 14th. The combination of a movable flexible type form, the hinged perforated plate B, the bar *g*, roller *a* and spring clip *b*, said roller and clip being arranged in front of the bar *g*, whereby the plate B may be lifted and the paper removed. 15th. An elastic type plate in combination with a platin and with means for bringing the letters on said plate into alignment, and means for pressing said letters upon the paper. 16th. An elastic type form, in combination with a rigid frame, fixed to the edge of said type form and adapted to be used in connection with the moving mechanism, and a perforated inking plate of the type writer. 17th. The combination, with the feed roller *a* of the clip *b*, pivoted independently of the roller and adapted to press upon it to hold the paper, and also adapted to be raised from the roller to admit the paper.