

pivoted bed-plate *a*, and frame-bar *W*, the stud *w*; 52nd. The imperforate bed-plate *a*, having its rear-side extended so as to close the space between the same, and the inner-side of the slag-pit *G*; 53rd. A horizontally stationary bed-plate provided with a serrated edge, in combination with a fuel-chamber, capable of a horizontally-rotary motion and provided upon its portions contiguous to the edge of said bed-plate with corresponding serrations; 54th. The projecting ledge *K*₃ upon the sides of the ash-pit *V*; 55th. The doors *R*₂ provided with the lugs *S*₂ and ears *V*₂, which together form the lingo or pivotal bearings for said doors; 56th. The hollow-lug *W*₂ of the door-frame secured upon and extending outward from the side of the casing of the stove; 57th. A mica frame, having its lower bar bevelled inward and downward; 58th. A mica section of dropping doors situated opposite a basket-grate when the latter is placed above a ring or slag-pit, and all the parts are constructed and combined as specified; 59th. The turn-button *Y*₂ and *Z*₂ having its outer portion flush with the surface of the door; 60th. A stove shaker provided upon one end with a key for unlocking the turn-button; 61st. Combination with the arm *Y*₂ of the turn-button, the lugs *D*₃ and *E*₃ secured upon and projecting inward from the door *R*₂; 62nd. Combination with the turn-button *Y*₂ and *Z*₂ pivoted to or within the door *R*₂, the lug *F*₃ secured to and extending inward from the frame *V*₂.

No. 2029. WILLIAM C. NUNN, Belleville Ont.,
3rd February, 1873, for 5 years: "A Carburetting Machine." (Machine à carburer.)

Consists in providing the end of the pumping cylinder with a perforated trap to feed the cylinder with water when required and to admit atmospheric air to the pump, also in constructing the carburettor of a rectangular form divided by semi-partitions and suspending, within the divisions, cloth to absorb the hydro-carbon by capillary attraction thus increasing the carburetting surface.

Claim.—1st. Providing the cylinder *A*, at one end with a feed aperture having a funnel-lip and perforated lugged cover *E*; 2nd. A carburetting tank *G*, subdivided by partitions *T*, and connected by inverted pipes *u*; 3rd. A carburetting tank *G*, subdivided by partitions *T*; 4th. In the application and employment in a carburetting tank *G*, of capillary sheets *J*, suspended therein as and for the purpose set forth.

No. 2030. GEORGE A. RICHARDSON, Reading, Mass., U. S., 3rd February, 1873, for 5 years: "An Improved Shoe." (Une soulier perfectionné.)

Claim.—1st. The improvement in uniting soles and uppers of shoes without lasting and without inner soles by using a connected vamp and quarter; 2nd. Uniting the soles and uppers of shoes by stitching the vamp to the end of the quarter as described; 3rd. The rotatively reciprocating thread-guide sleeve *I*, embracing the presser-foot *h* or needle bar and having an eye *m*, in combination with the needle and work-plate, 4th. The presser-foot *g*, formed with the recess *i*, in combination with the needle and thread-guide.

No. 2031. ROBERT C. BECKETT, Newboro, Ont.,
3rd February, 1873, for 5 years: "Twin Bob-Sleighs." (Traîneaux-Jumeaux, pour les billots.)

Claim.—1st. The construction of bob-sleighs, the combination of the knees *B*, brace-rods *E*, and caves *D*, for supporting the beam *C*, from the runners *A*; 2nd. The connection of the reach *G*, with the sleighs by the pivoted front bolster *F*, sleeve *H*, connecting rods *J*, and hinged rear bolsters *T*, whereby the reach can be adjusted to any desired length and fixed by the sleeve pin; 3rd. In the adaptation of a bolster plate *L*, having thereon a raised hollow collar and king-bolt passing through the same to the beam, to form a ball and socket connection with the bolster *F*.

No. 2032. EVERETT P. RICHARDSON, Lawrence, Mass., U. S., 3rd February, 1873, for 5 years: "A Shoe Sewing Machine" (Machine à coudre les chaussures.)

Relates to mechanism for sewing what are known as "turned shoes," in the manufacture of which each shoe is made without an inner sole.

Claim.—1st. The combination and arrangement of mechanism for imparting reciprocating movements to the needle bar. 2nd. The mechanism for imparting the movements to the cast-off, relatively to the movements of the needle; 3rd. The arrangement of mechanism for throwing the needle-bar out of connection with its actuating mechanism; 4th. The construction and arrangement of the intervening mechanism by which from the main driving shaft, the respective, vertical movements of the thr at piece *V*₂, needle-bar *S*, bender *Y*₂, hook *X* and channel foot *Z*₂, are effected; 5th. The construction and arrangement of the rocker-sleeve *m*, and its arms, the bender-bar *d*₁, and spring *o*₁, for reciprocating the bender; 6th. The arrangement of mechanism for actuating the thread-guide *p*₂, and theawl bar *l*; 7th. The arrangement of mechanism for adjusting the position of the hook *z*; 8th. The general cooperative arrangement of all of the details of the mechanism as described.

No. 2033. BENJAMIN HUOT, Levis, Que., 3rd February, 1873, for 5 years: "A Hot Air Tubular Furnace." (Une fournaise à tubes à air chaud.)

Claim.—Elle consiste à utiliser le calorique de l'intérieur du foyer *c*, au moyen de tubes *r*, *r*, qui le traversent, on y faisant passer l'air froid; et ensuite à utiliser le calorique contenu dans la fumée au moyen d'une boîte *e*, et de tuyaux *f*, *h*, *i*, *j*, *k*, et *m*, disposés à cet effet et tel que décrit.

No. 2034. HORACE C. BRADFORD, Providence, R. I., U. S., 4th February, 1873, for 15 years: "Machine for Setting Buttons or Lacing-Hooks." (Machine à ajuster les boutons ou les crochets.)

This machine is more particularly adapted for setting automatically the "Shurtliff" lacing or button-hooks in leather, cloth or other fabric in connection with which they are to be used.

Claim.—1st. The top plate *E*, partially vertical and partially horizontal, with the intervening section twisted or curved, in combination with the turning-plate *F*; 2nd. The combination of the chute, with the holding and releasing fingers, whether the latter be arranged to operate by the line of hooks in the chute, or by intermittent rotation whereby the line of hooks in the chute, may be kept from descending and the lower one at the proper moment be delivered to the nippers; 3rd. The combination of the chute the transfer-finger and the transfer-bar; 4th. The automatic holding and forcing nippers, in combination with the transfer or holding bar; 5th. The clenching block, in combination with the turning-fingers and the clincher; 6th. The machine for automatically setting lacing hooks, composed of the several mechanical devices organized and combined as described for separating *n*glo hooks from a mass of hooks for presenting them in a proper position for seizing each hook adjacent to its lacing space, as presented and forcing its prongs through the fabric in which it is to be set, and for turning and clinching the prongs.

No. 2035. WILLIAM C. NUNN, Belleville, Ont.,
Assignee of Thos. M. Farrand, Boston, Mass., U. S., 4th February, 1873, for 5 years: "Tuck Folders of Sewing Machines." (Lames à plisser des machines à coudre.)

Claim.—1st. Combination with the sliding folder-guide, the gauge-lip *m*, at the end of the shank *n*, said shank being formed as a spring, the pressure of which is adjusted by a screw *r*, which presses the shank down upon or toward an incline *q*; 2nd. The clamp-plate *u*, formed with an incline *q*, for enabling the pressure upon the shank of the tuck-gauge or upon the hemmer shank to be adjustably regulated by the screw *r*.

No. 2036. JAMES B. WATT, Coaticook, Que.,
4th February, 1873, for 5 years: "A Spring Bed Bottom." (Un fond de lit à ressorts.)

Claim.—1st. The combination of the metal chains *B*, and spiral-springs *C*, when applied to the side-rails *A*, of a bedstead for supporting the bed bottom; 2nd. The combination of the standards *G*, and spiral-springs *H*, for supporting the slats *F*, from the slats *D*; 3rd. The application and arrangement of the central-bar *E*, for connecting the slats *D*; 4th. The straps *T*, when applied and used in the manner set forth.

No. 2037. JAMES F. KELLOGG, Oshawa, Ont.,
4th February, 1873, for 5 years: "Tuck Marker of Sewing Machines." (Marque-pli de machine à coudre.)

Claim.—1st. The bed-plate *A*, formed of two upward bent arms *a*, the latter provided with a bevelled slotted groove *E*, for attachment of the outer gauge *B*, and the former carrying the inside tuck-gauge *C*; 2nd. The application to the arm *a*, of the plate *A*, of a spring wing-bar *D*, for smoothing and pinching the cloth; 3rd. The sliding gauge *B*, when provided with a race block engaging in the slot *E*, in the plate *A*, and adjustably fixed by the thumb-screw *F*; 4th. The application to a tucking attachment of a spring-arm *H*, provided with an elastic-pad *J*, and operated by the needle-bar on a raised-edge *K*, for creasing or marking one or more thicknesses of cloth; 5th. The application to the arm *a*, of the plate *A*, of a gauge *C*, provided with a bent end or other contrivance to slide inside the tuck for the holding of the work to the gauge *B*, and prevent it from drawing off, as set forth.

No. 2038. SAMUEL STALFORD, St. Andrews, Co. of Argenteuil, Que., 4th February, 1873, for 5 years: "A Churn." (Une baratte.)

Claim.—1st. A rotary rectangular churn the broadest sides being hung vertically to a horizontal shaft *C*; 2nd. Providing a rectangular cream chamber of a churn with balance weights *D*, applied horizontally to two or more opposite exterior angles to render the rotation of the churn uniform.