

No. 4493. CYRENIUS C. ROE, Hamilton, Ont., 15th March, 1875, for 5 years: "Machine Belt Buckle or Fastener." (Boucle en agrafe de courroie de machines.)

*Claim.*—The arrangement of the buckle *d*, for fastening machine Belts, as specified.

No. 4494. CHARLES J. CORBIN, East Oxford, Ont., 15th March, 1875, (Extension of Patent, No. 287) for 5 years: "Improvement on the 'Corbin's Horse Rake.'" (Perfectionnement du Râteau à cheval dit "de Corbin.")

*Claim.*—The entire construction of the iron-frame consisting of side pieces A, B, C. and D, E, F, hinge G, connecting side-pieces, spring H, to throw side-piece D, E, F, over tooth of rake, the tenon at the top of side piece D, E, F, working in a groove at the upper end of the side piece A, B, C. the lower end of the side piece D, E, F, working through the aperture at the end of the side piece A, B, C.

No. 4495. MANASSEH PETTENGILL, Minneapolis, Ma., U. S., 15th March, 1875, for 5 years: "Automatic Car-Coupler." (Attelage automatique de wagons.)

*Claim.*—The head *b*, having the vertical concavity in its face, and the series of horizontal semi-circular grooves *d*, with bevelled intermediate ribs, as described.

No. 4496. ELIJAH L. HOWARD, Boston, Mass., U. S., 15th March, 1875, for 5 years: "Hem-Stitching Attachment to Sewing Machines." (Ajustage des lames à ourlets des machines à coudre.)

*Claim.*—1st. An attachment for sewing machines to create a hem stitch, consisting of a bar or horn pivoted to the presser foot or other portion of the machine, and vibrating or oscillating with respect to the needle or path of movement of the latter in such manner as to compel the formation about such bar or horn of a succession of loose switches; 2nd. The bar *a*, as containing as part thereof the loop portion or eye *c*, or an equivalent construction, and horn *d*, under such an arrangement as shown, that each and every loop of thread formed over the horn is free to pass unobstructed from the point or free end of the latter as the fabric is fed along; 3rd. The oscillating or vibratory bar, bearing as an attachment or part thereof a horn, or former about which the thread forms in loose bights when pivoted to the presser-foot; 4th. The mechanism for actuating the shifting-bar *b*, consisting of the pitman *f*, and cam *i*, the pitman being impelled against the cam by a spring or otherwise, and the cam rotated by suitable means.

No. 4497. CHARLES F. RITCHEL, Cory, Pa., U. S., 15th March, 1875, for 5 years: "Brush Block Boring Machine." (Machine à percer les bois des brosses)

*Claim.*—1st. The series of link-motions or universal joints *C*, secured by a ball at one of their ends to the crank-shanks *n*, passing through the first perforated plate *N*, and by a ball also at their other end to the bit-shanks *p*, passing through the second perforated plate *P*, in combination with the bit-shanks *p*, and their holding devices, and the bits *Q*, to bore with one movement all the holes straight and flare; 2nd. A series of link-motions or universal joints *O*, in combination, with sets of cranks *M*, passing the driving-plate *I*, which plate *I*, is set in motion by the eccentrics *H*, *H*, the pulleys *F*, *F*, and their belts, and in combination with the drum *C*, having a crank *E*, or a belt by which said drum *C*, is made to revolve, this mechanism being secured to the sliding carriage *B*, and bed *A*, this arrangement being to give the requisite motion and direction to the bits *Q*.

No. 4498. LOUIS CÔTÉ, St. Hyacinthe, Que., 15th March, 1875, for 15 years: "Machine for Bending and Forming Stiffeners for Boots and Shoes." (Machine à courber et former les contre forts de chaussures.)

*Claim.*—The matrix wheel *B*, provided with an elastic periphery *b*, in combination with the mandrel *C*.

No. 4499. JOHN S. ANDERSON, Flintville, Wis., U. S., 15th March, 1875, for 5 years: "Boiler Washing Machine." (Chaudière de buanderie.)

*Claim.*—A combined boiler and washing-machine, consisting of the vessel *a*, which is divided into two compartments by a curved partition; in combination with the double crank *d*, and handle *c*, the partition and ends of the boiler being formed into a semi-circle.

No. 4500. RÉMI PARADIS, St. Hyacinthe, Qué., 15 Mars, 1875, pour 5 ans: "Machine à bar-deau." (Shingle Machine.)

*Résumé.*—1o. La plateforme ou chariot circulaire *B*, qui chariote les billots de bois à bardeauter, pour les faire passer sous la sole circulaire *y* compris toutes ses armatures, griffes fixes *F*, et griffes mobiles *G*, leurs bras de leviers d'action *H*, ainsi que leurs ressorts *J*, et en outre celui de le construire avec un plus ou moins grand nombre de cases à billots en augmentant ou en diminuant le nombre des bras-casiers *C*; 2o. La tête *I*, des bras de leviers *H*, porte griffes mobiles d'un galet qui aurait l'avantage de diminuer la perte de force causée par la friction de la dite tête *I*, contre la surface du guide semi-circulaire *W*, qui force les griffes à pénétrer dans les billots (emprisonnées dans leurs casiers respectifs) au moment où ils sont transportés sous les dents de la sole. 3o. La glissière ou guide semi-circulaire *W*; 4o. Le commando du chariot par pignon *P*, et par les intermédiaires. 5o. Le système d'action de la haseule à bardeaux *S*, par doigt *L*, et triangle *T*, accouplé au tourniquet *Y*.

*Claim.*—1st. The circular platform or carrier *B*, which carries the logs to be cut into shingles, so that they may pass under the circular saw, including therein all its gearing: fixed claws *F*, and movable claws *G*, their action lever arms *H*, as well as their springs *J*, besides *C*, the constructing it with a greater or lesser number of log holders, by increasing or diminishing the number of boiler arms *C*. 2nd. The head *I*, of the lever arms *H*, movable claw holder with running sheaf, having the advantage of diminishing the loss of power caused by the friction of the said head *I*, against the surface of the semi circular guide *W*, forcing the claws to penetrate the logs (confined in their respective holders) at the moment of their being carried under the teeth of the saw. 3rd. The slide or semi circular guide *W*. 4th. The control of the log carrier by the pinion *P*, and by the gearing. 5th. The method of tipping the shingle *S*, by the finger *L*, and triangle *T*, coupled to the pulley sheaf *Y*.

No. 4501. THOMAS RICHARDSON, and MALCOLM MCINNIS, Fergus, Ont., 15th March, 1875, for 5 years: "Improvements on Ploughs." (Perfectionnements aux charrues.)

*Claim.*—1st. The shape and manner of strengthening and securing the frame *A*, *A'*, *A''*; 2nd. The shape of the neck of the plough *B*, and the manner of fastening the same to the frame; 3rd. The combination of levers *C*, *C'*, *C''*, and the semi circular toothed rack *F*, and spring catch *E*, engaging therewith whereby the wheels are adjusted.

No. 4502. JOSEPH K. FEICK, Berlin, Ont., 16th March, 1875, for 5 years: "Felt Boot Tree." (Forme de tige de botte en feutre.)

*Claim.*—1st. A tree for the fabrication of felt boots, the front composed of two or more sections *A*, *B*, and the rear of two or more sections *C*, *D*, and two or more intermediate keys *E*, *F*, *G*; 2nd. The foot piece of the tree composed of two parts *H*, *I*, subdivided horizontally from the toe rearward to the curved cut *G*.

No. 4503. GEEENLEAF HOULTON, St. Andrews, and HENRY OSBURN, St. Stephen, N. B., 16th March, 1875, for 5 years: "Car Axle Box." (Boîte d'essieu de wagon.)

*Claim.*—1st. The metal drawer *B*, having longitudinal partitions *F*, and upper side walls adjusted to fit into, and be secured within the axle box *A*; 2nd. In combination with the drawer *B*, the spring *D*, pad-holder *E*, and pad *C*. 3rd. In combination with the slide *K*, the leaf spring *L*, placed upon the outside of said slide *K*, and curved outward centrally to serve as a handle. 4th. In combination with the drawer *B*, the upper loose journal-bearing *I*, having lips *a*.

No. 4504. WALTER R. CLOSE, Bangor, Me., U. S., 16th March, 1875, for 15 years: "Improvements in Friction Catch Wheels." (Perfectionnements aux roues à estoquiaux de friction.)

*Claim.*—1st. The wheel *E*, fixed permanently on the shaft *B*, formed with the central or principal part *a*, in which part are formed recesses *n*, *m*, with planes running to the periphery of *a*, and when used in connection with the hoop *g*, forming wedge shaped pockets, in which the friction rolls *b*, *b*, act by their own weight to wedge between the planes of the recesses and the inner circumference of the hoop *g*, whenever the wheel *D*, revolves in a forward direction towards the shallowest part of the recesses thereby compelling *a*, to revolve in the same direction, but when the revolution of *D*, is reversed the rolls *b*, *b*, return into the deepest parts of the recesses, and allow the hoop *g*, to revolve freely around *a*; 2nd. The wheel *E*, fixed permanently on the shaft *B*, formed with the central or principal part *a*, flange *b*, and recesses, or pockets *n*, *m*, *m*, carrying the friction rolls *b*, *b*, *b*, *b*, and acting in connection with the peripherally flanged wheel *D*, set collar *c*, and connecting rod *d*, to impart motion to the lumber-carriage of a saw mill or to any other machinery; 3rd. The "Compound Friction Catch Wheel" composed of the wheel *E*, having a projecting central part *a*, in which are the recesses *n*, *m*, formed