

slit and having its end attached to one side of the double wristband between the button-holes *c*, *e* and *ct*, *cr*, and provided with an opening *D* in the outside lap of the slit, arranged at such a distance from the point of attachment of the sleeve with the wristband, that when the wristband is folded upon the outside of the sleeve, the button-holes in the wing of the wristband folded against the sleeve will coincide with the opening *D*.

No. 31,221. Tailor's Button Hole Cutter.
(*Ciseaux à boutonnières.*)

Elizabeth Barry, Hamilton, Ont., (assignee of John B. Barry, Jr., Chicago, Ill., U.S.), 1st May, 1889; 5 years.

Claim.—1st. In a tailor's button hole cutter, the combination with the handles *A*, *B*, of the cutter *d*, and the punch *E*, substantially as and for the purpose specified. 2nd. The combination, of the cutter *d*, and punch *E* constructed to revolve on the outer end *e* of the upper jaw, and tightened by a thumb screw *F*, substantially as and for the purpose specified. 3rd. The combination, of the cutter *d*, punch *E*, thumb screw *F*, barrel *e*, and handles *A*, *B*, substantially as and for the purpose specified. 4th. The combination of the cutter *d*, punch *E*, handles *A*, *B*, *e*, adjusting screw *k*, spring *G*, substantially as and for the purpose specified.

No. 31,222. Fruit Jar. (*Jarre à fruits.*)

George C. Sawyer, Canton, N.Y., U.S., and Robert M. Stocking, Québec, Qué., 1st May, 1889; 5 years.

Claim.—1st. The jar having the overhanging lip *E*, provided with the apertures *F*, *F* through the same, in combination with the cover arranged in the mouth of the jar, and provided on its upper side with the post *J*, and the double semi-annular inclines *H*, *H*, and the revolving locking arm *U* adapted to a lateral movement around said post, and to engage at its extremities under the said overhanging lip, and the bail *Z* mounted at its ends upon the upper side of said locking arm, substantially as and for the purposes specified. 2nd. The combination, with the jar having the lips *E*, of the cover having the double inclines *H*, *H*, the post *J*, and the locking arm *U* having the bail *Z*, and the centre hole *V* mounted around the post *J*, and adapted to engage at its ends under the lips *E*, substantially as and for the purposes specified. 3rd. The jar having interior overhanging lip at its upper edge, provided with the apertures *F*, *F*, in combination with the cover arranged in the mouth of the jar, and provided upon its upper side with a double inclined ring or flange *N*, and the post *J* in the centre, and the locking arm provided with the bail *Z* adapted to engage around the post *J*, and bearing on the inclined ring or flange *N*, and engaging under the overhanging lip, and capable of a lateral vertical motion, whereby the locking arm moves laterally and vertically as it slides upon the inclined ring or flange, substantially as and for the purpose hereinbefore set forth.

No. 31,223. Tree Transplanting Waggon.
(*Efourceau pour transplanter les arbres.*)

William A. Estes, Vassalboro', Me., U.S., and Frederick W. Watson Toronto, Ont., 1st May, 1889; 5 years.

Claim.—1st. In a tree transplanting waggon, the combination, with the front truck, and a platform connected thereto, of the rear truck having a vertical gate capable of being adjusted, and carrying a rearwardly extending lever, substantially as and for the purpose specified. 2nd. The combination, with the rear truck and its axle, of a gate or tree support capable of being adjusted vertically with relation to said axle, of a lever having saddles or supports thereon for the tree trunk, said lever being rigidly connected to said adjustable gate and adapted to move therewith, substantially as and for the purpose specified. 3rd. The combination, with the rear truck, and gate *D* connected thereto, of the saddle *F*, lever *E* having saddle *E*, and rigid connections between said lever and said gate, substantially as specified. 4th. The combination, with the axle of the rear truck, and with the adjustable gate *D*, of the springs *cs*, for the purpose specified. 5th. The combination, with the rear truck having frame *k* connected thereto, of the winding drums *K*, *K*, chains *G*, *G*, and platform *B*, substantially as and for the purpose set forth. 6th. The combination, with the front truck *A*, and its axle, of the fifth-wheel *Ar*, straps *bx*, *bx*, platform *B* and bolts therefor, arranged as specified.

No. 31,224. Air Injecting Device for Boiler Furnaces. (*Injecteur d'air pour les fourneaux des chaudières.*)

The Natural Gas Fuel Company (assignee of Elijah B. Cornell), Philadelphia, Penn., U.S., 1st May, 1889; 5 years.

Claim.—1st. In combination with a boiler furnace, or fire box *A*, a gas generator *C*, the inlet and outlet ports *e*, *c*, a pipe connection between the boiler and gas generator, and an air injector *E* and restricted pipe connection *d*, substantially as shown and for the purposes set forth. 2nd. In combination with a boiler furnace, or fire box, a gas generator *C* located therein, and provided with a restriction *b*, a pipe connection having out off *bx* between boiler and gas generator, and an air injector *E* having restricted pipe *d* with outlet ports of the gas generator, substantially as set forth. 3rd. In combination with a boiler, a furnace, a gas generator, a pipe connection *B*, an air injector *E* and a pipe connection *d*, as described and set forth. 4th. The combination of a boiler furnace *A*, a steam pipe, a gas generator *C* connected with said pipe and with the ash-pit *H*, by restricted pipe connection *D*, substantially as set forth and for the purposes herein described.

No. 31,225. Machine for the Manufacture of Rosettes and Similar Ornaments in Wood. (*Machine à fabriquer les rosettes et ornements semblables en bois.*)

James McElroy and William Stewart, Toronto, Ont., 1st May, 1889; 5 years.

Claim.—1st. The table *C* supported on the springs *E*, and having a hole *l* made in it immediately over the revolving cutter head *A*, in combination with a vertical spindle *J* fitting in bearings formed on the standard *K*, and operated by the pivoted weighted lever *L*, substantially as and for the purpose specified. 2nd. The table *C* supported by the springs *E*, and having a hole *l* in *vs* in it immediately over the revolving cutter-head *A*, the adjustable clamps *H*, placed one on each side of the hole *l*, the adjustable stops *G* located below the table *C*, in combination with the vertical spindle *J* fitting in bearings formed on the standards *K*, and operated by the pivoted weighted lever *L*, substantially as and for the purpose specified.

No. 31,226. Plough Clevis. (*Volée de charrue.*)

The Cookshutt Plough Co., L.D. (assignee of John Challen), Brantford, Ont., 1st May, 1889; 5 years.

Claim.—A reversible plough clevis *D*, having the butments *E*, made solid with the clevis, the jaws *B*, *B*, having oval raises on their faces, to which the butments *E*, *E* join, and are held there by the bolt *C* passing through the jaws *B*, *B*, the brace *F*, for the purpose of bracing the reversible plough clevis, all substantially as shown and for the purpose hereinbefore set forth.

No. 31,227. Car Coupling. (*Attelage de chars.*)

Benjamin G. Harris (assignee of Simon Fairman), Baltimore, Md., U.S., 1st May, 1889; 5 years.

Claim.—1st. A coupling head for cars, composed of a fixed part *A*, having a shoulder *a*, and a part *B* hinged thereto, having a cavity fitting over the fixed part, a shoulder corresponding to the shoulder *a*, and a rear weighted arm, all substantially as described. 2nd. A coupling head for cars, composed of a fixed part having a shoulder *a*, and a part *B* hinged thereto, having a cavity fitting over the fixed part, a shoulder corresponding to the shoulder *a*, and a rear weighted arm, in combination with a link having arrow-head shaped ends and the additional half-heads *e*, substantially as described.

No. 31,228. Harness Buckle.

(*Boucle de harnais.*)

George P. Cole, Johnstown, N.Y., U.S., 2nd May, 1889; 5 years.

Claim.—1st. The combination, with a buckle body *A*, provided with the slotted web *e*, of the slotted wedge *B* and the buckle tongue *C*, having the shank *j* inserted in the slots of the said wedge and web, substantially as shown and described. 2nd. The combination, with the buckle body *A*, having its ends curved in opposite directions, and provided with the slotted web *e*, substantially as described, of the slotted wedge *B*, provided with a stud *i*, and the buckle tongue *C* having the shank *j*, and furnished with the shoulder *l* and nut *k*, substantially as shown and described.

No. 31,229. Coffee or Tea Pot.

(*Cafetière ou théière.*)

Luther S. Wright, Groton, N.Y., U.S., 2nd May, 1889; 5 years.

Claim.—The combination with the pot *A* and lid *B* hinged thereto, of the handle *D* fastened at both ends to the pot, and provided with the slot *a*, and the lever *C*, rigidly secured to the lid passing through the aforesaid slot, and curved to correspond to the under side of the handle and lie in proximity thereto when the lid is closed.

No. 31,230. Cooking Utensil.

(*Ustensile de cuisine.*)

John H. Fredericks, Lock Haven, Penn., U. S., 2nd May, 1889; 5 years.

Claim.—1st. As a new article of manufacture, a culinary vessel, having a double bottom, and an interposed sheet of non-combustible material secured at its circumferential edge between the lower bottom and the vessel, substantially as described. 2nd. As a new article of manufacture, a culinary vessel provided with the double bottom and double lower sides, and having an interposed sheet of non-combustible material secured at its circumferential edge, between the double side and the vessel, and covering the bottom and part of the sides of the latter, substantially as described.

No. 31,231. Cutting, Grooving and Beveling Wood to form Board Staves and the like, and Machinery therefor. (*Taillage, cannelage et biseautage du bois pour faire des planches, des douves et des articles semblables et machinerie pour cet objet.*)

Gustave A. Oncken, Frankenthal, Germany, 2nd May, 1889; 5 years.

Claim.—1st. The mode of cutting a continuous board from a rotating block or log of wood, by setting a vertical knife, which is continually displaced towards the axis of rotation of the wood, and also the rotating wood itself in horizontal oscillations upon different centres, substantially as and for the purpose specified. 2nd. In a machine for cutting a continuous board from a rotating block or log of wood in the manner as claimed, before the combination of the eccentrics *k*, *kr*, the bearings *i*, *i* and the frame *f* supporting the knife, substantially as and for the purpose set forth. 3rd. In a machine for cutting a continuous board from a rotating block or log of wood, the combination of the knife *a* and the pressure strip *k* in such a manner that the upper edge of the latter, the cutting edge of the knife, and the axis of rotation of the wood are lying in one plane, and the rear surface of the knife to be ground concave after a cylindrical surface, the axis of which being placed in the same plane, as aforesaid. 4th. In combination, with the knife, of a machine for