

chamber receiving and returning the flow through the tubes, a steam space around said tubes and enclosed by the shell A, and inlet and outlet water compartments H, I, in which the tubes terminate, as set forth. 3rd. The outlet chamber or compartment I, having a box or cover M, enclosing the outlet, and provided with double valves O, P, to cause and direct and indirect passage through said compartment from the tubes to the outlet, as set forth, for the purpose described.

No. 34,858. Two Wheeled Vehicle.

(Voiture à deux roues.)

Jacob Laschinger, New Hamburg, Ont., 12th August, 1890; 5 years.

Claim.—1st. The thills A, having a joint forwardly of the draft bar, and connected by a spring plate I, bolted above the joint to the thills, and a stop attached to the thills below the joint to limit the tension of the spring, as set forth. 2nd. The combination, with the divided thill A, connected by a spring plate I, of the elbow stop b, and U-shaped stop c, bolted to the thill, and interposing one another, and the bolt L, connecting said stops, and provided with an elastic cushion L, to limit the tension of the spring, as set forth. 3rd. The combination of the thills A, the open bracket F, bolted to the rear extremity, the seat spring C, having elongated eyes, and the pin or bolt and roller supporting the spring, whereby it will freely elongate as set forth.

No. 34,859. Steam Boiler.

(Chaudière à vapeur.)

William M. Glasston, Socorro, New Mexico, U.S., 12th August, 1890; 5 years.

Claim.—1st. The combination, with the boiler and its tubes, of the water compartment surrounding the same and extending below the water-line, the upper row of tubes being extended through said water compartment, substantially as shown and described. 2nd. The combination, with the boiler, of the water compartment around said boiler, and secured thereto below the water-line, and the upper set of tubes extended through the ends of the boiler, and through the ends of the water compartment, and one inch from the horizontal portion thereof, substantially as shown and described. 3rd. The combination of the boiler, with its water compartment, of the tubes extended through the end of the boiler and through the ends of the water compartment, and the outer water jacket or compartment surrounding said boiler and the furnace, as shown and described. 4th. The combination of the boiler with its water compartment, of the tubes extended through the ends of the boiler and through the ends of the water compartment, and the outer water jacket or compartment surrounding said boiler and the furnace, as shown and described, and the blow-off pipe extending the full length of the boiler and one inch from the bottom of the same, with holes in bottom of said pipe to receive the sediment that may be lying on the bottom of the boiler and the boiler surrounded by water.

No. 34,860. Mouse Trap. (Souricière.)

Homer J. Barry, Fargo, Mich., U.S., 12th August, 1890; 5 years.

Claim.—1st. In an animal trap, the combination, with the case having an entrance opening, of perforated walls on each side of the said opening, and the bait receptacle on the inner side of the said trap, the combination, with bait-boxes on each side of the entrance opening, of perforated walls on each side of the said opening, forming an animal trap, the combination, with the case having cover D, of the two trap-doors placed below the cover, and the glass partition arranged in line with the meeting ends of the said doors, substantially as and for the purpose described. 4th. In an animal trap, the combination, with the case and the two trap-doors, of the sliding doors E and F, closing the space between the front ends of the case, and the front portions of the said trap-doors, substantially as and for the purpose described. 5th. In an animal trap, the combination, with a wall having an entrance, as k, and a guard projecting from the upper end of the said entrance, of the needles L pivotally supported and the stop M bent in a series of return folds, and adapted to limit the downward movement of the said needles, substantially as set forth. 6th. The herein specified trap, composed of the case having E and F, about on a level with the tops of the ends, and placed some distance below cover D, glass partition b, in line with the inner ends E and F, the perforated walls on each side of the entrance-opening, between them, the partition K, the guard and needles protecting the opening in partition K, and the glass door closing an opening in the end B' of the case, substantially as specified.

No. 34,861. Tug Attachment for Safety Connecting Trace and Hames. (Mancelle de collier.)

Marcel E. Lyburner and John E. Mathews, Montreal, Que., 12th August, 1890; 5 years.

Claim.—A metal tug attachment, with clip for affixing to hames, and provided with metal loops, under which trace is passed, and metal pin which passes through trace, substantially as shown and described.

No. 34,862. Automatic Button Turning Lathe. (Tour automatique à tourner les boutons.)

Dilman B. Shantz, Berlin, Ont., 13th August, 1890; 5 years.

Claim.—1st. In a machine for turning buttons and similar articles, the combination of cutting tools having means for revolving them, and for automatically and alternately bringing them forward and drawing them back, and grips provided with means for automatically opening and closing them for the purpose of receiving, holding and allowing the discharge of the material operated upon, and provided with means under the control of the operator for preventing the opening of the grips, substantially as described. 2nd. In a lathe for turning buttons and similar articles, the combination of cutting tools having means for revolving them and for automatically and alternately bringing them forward and drawing them back, and provided with means for changing simultaneously the position of the cutting tools, and connections to the right or left, as may be desired, substantially as described. 3rd. In a lathe for turning buttons and other similar articles, the combination of grips for holding the material operated upon, and provided with means for automatically opening and closing the same, and with means under the control of the operator for preventing the opening of the grips, when desired, substantially as described. 4th. In a lathe for turning buttons and similar articles, the combination of cutting tools having means for revolving them, and for automatically and alternately bringing them forward and drawing them back, and provided with means for changing the position of the cutting tools and connections simultaneously to the right or left, and grips, having means for automatically opening and closing them, and with means under the control of the operator for preventing the opening of the grips when desired, substantially as described. 5th. In an automatic lathe for turning buttons and similar articles, the combination of means to regulate and control the forward and backward movement of the cutting tools and connections to the right or left, and means for discharging the material operated upon, substantially as described. 6th. In a machine for turning buttons and similar articles, the combination with cutting tools, and means for operating the same, of grips consisting of a movable jaw and a stationary jaw, said movable jaw being operated through suitable connections by a cam on a driving shaft, substantially as described. 7th. In a lathe for turning buttons and similar articles, the combination, with cutters and means for operating the same, of a grip for holding the material to be operated upon, a cam for actuating said grips through suitable connections, and means for throwing said cam into and out of engagement with said connections, substantially as described. 8th. In a lathe for turning buttons and other similar articles, the combination, with revolving cutters and means for operating the same, of a grip for holding the material to be operated upon, consisting of a stationary jaw, and a movable jaw, connections between the movable jaw and operating lever, a cam for actuating said lever, mounted upon a driving shaft, a shaft, a rod in said driving shaft, a pin on said rod engaging in a notch in the cam, and means for reciprocating said rod, whereby the cam is engaged and disengaged from the driving shaft, substantially as set forth. 9th. In a lathe for turning buttons and similar articles, the combination, with revolving cutters and means for operating the same, of a grip for holding the material to be operated upon, consisting of a movable and a stationary jaw, connections between said movable jaw and an operating lever, a cam mounted on a hollow driving shaft for actuating said lever, a slidable rod fitting in said shaft, having a projecting pin extending through a slot in said shaft and engaging with a notch in the cam, a spring bearing against said rod, and a rod and lever for operating said sliding rod, substantially as described. 10th. In a lathe for turning buttons and similar articles, of revolving cutters, reciprocating slide rods, and mandrels connected with said cutters, levers connected with the slide rods, cams mounted on a driving shaft and actuating said levers, substantially as set forth. 11th. In a lathe for turning buttons and similar articles, the combination with the revolving cutters, mandrels and connected slide rods, of levers connected with said slide rods, cams mounted on a drive shaft for actuating said levers and connections, and means for shifting said levers, substantially as and for the purpose described. 12th. In a lathe for turning buttons and similar articles, the combination, with revolving cutters, reciprocating mandrels and slide rods, pivoted levers connected with said slide rods, cams mounted on a driving shaft for actuating said levers, and means for shifting the levers to change the positions of the cutters, of a grip, consisting of a movable and stationary jaw, connections between the movable jaw and an operating lever, and a cam for actuating said lever, substantially as described.

No. 34,863. Button Turning Lathe.

(Tour à tourner les boutons.)

Dilman B. Shantz, Berlin, Ont., 13th August, 1890; 5 years.

Claim.—1st. In a machine for automatically turning buttons and similar articles, the combination of revolving cutting tools, provided with means for alternately bringing them forward and drawing them back, grips, having means for receiving, holding and allowing the discharge of the articles operated upon, a hopper for holding blanks and automatic feeding device connecting with the hopper grips and cutting tools, by which a blank from the hopper is carried to the grips, and then held until the cutting tools have performed their operation, substantially as described. 2nd. In a button turning lathe, the combination, with the bed A, of two head stocks C, C, having sliding mandrels F, F, and slide rods G, G, for actuating the mandrels, a driving shaft H, a cross shaft I, geared with shaft H, and carrying cams I¹, I², levers J, J¹, rods K, K¹, and means for feeding and holding the blanks in position, substantially as described. 3rd. In a button turning lathe, the combination of the bed A, of two headstocks C, C, having sliding mandrels F, F, with pulleys F¹, F², and slide rods G, G, for actuating said mandrels, driving shaft H, a cross-shaft I, geared with shaft H, and carrying cams I¹, I², levers J, J¹, and rods K, K¹, substantially as described. 4th. The combi-