

the middle of such bow *k*; 3rd. The truss pad *b*, connected to a bar or spring at the end of the strap *p*, passing between the legs, in combination with a spring or bar also connected with said strap and the bar *a*, and waist belt *g*.

No. 1897. WILLIAM H. NICHOLS, Chatham, Ct., U. S., 13th December, 1872, for 5 years: "A Sleigh-Bell." (Clochette de traîneaux.)

Relates to a nearly spherical sleigh-bell made of sheet-metal in two parts and to a fastening for uniting same to the strap.
Claim. A sleigh-bell, composed of the two parts *a* and *b*, of sheet metal hardened as described, and united by flanges, *a'*, and *b'*, in combination with a sleigh-bell made in sections *a* and *b*, the former having the flat seat *a'*, provided with two slots, the staple or tie *c*, designed for use as described.

No. 1898. ELI B. RICE, Madison, Wis., U. S., 13th December, 1872, for 5 years: "A Grain Harvester." (Une moissonneuse à grain.)

Consists in the combination of endless rakes with elevating aprons, the two parts being formed of different widths, the narrowest part being placed at the front and operating at greater speed than the rear, and wider parts.

Claim.—1st. The combination of the endless rake-apron with the elevating apron of a harvester, each composed of two or more parts, moving parallel to each other. The front part of each moving at a greater rate of speed than the rear parts; 2nd. In combination with the grain platform and the compound rake-apron, the removable frame *W*; 3rd. In combination with the sickle, the double inclined angular projection *D*; 4th. The arrangement of the laterally swinging binders tables *I*, at each end of the concave *Y*, and the hinged platform *F*; 5th. The binders tables *I*, constructed as described and hung upon uprights *J*, at each end of the concave, by means of the socketed-studs *K*, and brace-rods *L*.

No. 1899. CHARLES BLACKTIN, St. Stephen, N. B., 13th December, 1872, for 10 years: "Method of Heating Buildings." (Méthode de chauffage des batiments.)

By a combination of ordinary stove-pipes and chimneys, one stove is made capable of heating several rooms.

Claim.—The dampers *a*, *a*, and *b*, *b*, in the chimney, and *c*, in the pipe and the passage of the pipe through the chimney, and the complete control of the heat thereby all combined, as shown in the drawing.

No. 1900. HENRY KUHLMANN, Glückstadt, Holstein, Germany, 13th December, 1872, for 5 years: "A Pegging Machine."

Claim.—1st. The machine for attaching the soles of boots and shoes to the uppers by means of pegs, and composed of slide *A*, and *B*, and its attachments, wood-guide *c*, vertical channel *D*, hammer *E*, with mechanism-guide *H*, slide *K*, shaft *m*, main-shaft *S*, with cam *cc*, upon it, shaft *Z*, the whole adjusted by levers *R*, and *Y*, moved by any suitable power, and constructed, arranged and operating together in combination with each other and other parts of the machine; 2nd. The peg-feeding mechanism consisting of a slide *C*, dove-tailed guide *H*, dove-tail *I*, slide *K*, pin *L*, box *n*, screw *P*, spring *P*, punch *P*, transporting-wheels *P*, and *P*, lever *P*, spring *P*, ratchet-wheel *P*, holder *P*, actuated by disc *K*, lever *K*, and slide *K*, all arranged and operating in combination with bands of hard wood *O*; 3rd. The peg-cutting mechanism consisting of joint *P*, knife *P*, lever *P*, pivoted to slide and levers *P*, and *P*; 4th. Theawl *B*, with cam *ll*, on main-shaft *S*, guiding-rod *B*, lever *B*, spring *B*, and catch *B*, all working together and in combination with other parts of the machine; 5th. The hammer *E*, and pin *G*, with cam *T*, guiding-rod *T*, lever-rod *T*, spring *T*, and catch *T*, in combination with channel *D*, and peg *E*; 6th. The lever *V*, with catch *K*, rod *W*, pin *V*, and rod *m*, all working in combination with the slide *c*; 7th. The disc *S*, on shaft *S*, with cam-groove on its periphery-lever *S*, slide *S*, crank-lever *M*, and rod *M*, all working in combination with slide *c*, and other parts of the machine; 8th. The combination of the cam *S*, levers *S*, and *S*, rods *M* and *M*, and pinners *X*, all arranged and working in combination with the slide *C*, and other parts of the machine; 9th. The combination of the support for boot or shoe *A*, slide *A*, plane *A*, and lever *V*, working in combination with other parts of the machine; 10th. The rod *Z*, connected to crank-pin on wheel-lever *Z*, shaft *Z*, cam-wheel *Z*, lever *Z*, ratchet and pawl *Z*, and spindle *Z*, working in combination with support *A*, and slide *A*; 11th. The toothed wheel *W*, toothed-wheel *W*, with cam-disco pivoted-lever *W*, slide *W*, head *W*, and roller *W*, all working together and with other parts of the machine.

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