

hardened face capable of receiving clearly-defined lines imparted to it by pen or type, and permitting the transmission of rays of light, substantially as described. 3rd. The process described of forming flexible wooden cards, the same consisting in cutting the card from the block, while the same is in a green state and across the grain of the latter, and subsequently placing the cut cards between absorbent material and subjecting them to pressure, substantially as described.

No. 26, 167. Wire Mat. (*Natte de fil de fer.*)

Franz C. Guilleaume, Mulheim-on the-Rhine, Germany, 7th March, 1887; 5 years.

Claim.—1st. A wire mat composed of spiral coils, arranged parallel to one another, the sides of each coil overlapping the sides of its laterally contiguous coils, and being locked thereto by means of a rod threading the loops formed by the overlapping portions, substantially as described. 2nd. A wire mat composed of spiral coils, each coil being locked to its neighbor by severally intertwining their convolutions, substantially as described. 3rd. A wire mat composed of spiral coils, connected as described, in combination with stiffening rods inserted in the coils, substantially as and for the purpose described.

No. 26,168. Harvesting Machine.

(*Moissonneuse.*)

Thomas S. Hodgson, Peterborough, Ont., 7th March, 1887; 5 years.

Claim.—1st. The combination of base or retaining board A, with pickets F, F, and top rail C of main frame, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the bottom part frame, of wings or sides B, to picket F and top rail, of wings or sides D, and shoe or runner D to frame B, also the union of wings to main frame by the bolts G, G, substantially as and for the purpose hereinbefore set forth.

No. 26,169. Brick Machine. (*Machine à briques.*)

Charles W. Raymond, Dayton, Ohio, U.S., 7th March, 1887; 5 years.

Claim.—1st. In a brick-pressing machine, the combination, with a carrier operated by toggle levers, of a compress-box carried upon said carrier, and provided with a movable bottom, and a platen arranged over said compress-box, substantially as described. 2nd. In a brick-pressing machine, the combination, with a carrier operated by toggle levers, of a compress-box carried upon said carrier, and provided with a movable bottom, and an adjustable platen arranged over said compress-box, substantially as described. 3rd. In a brick-pressing machine, the combination, with a vertically-moving carrier, and a compress-box supported on said carrier, of a movable bottom fitted in said compress-box, and provided with a rod or leg extending down through said carrier, and a stop with which said leg engages to cause the expulsion of the brick after the same has been pressed, substantially as described. 4th. In a brick-pressing machine, the combination, with a vertically-moving carrier operated by toggle levers, and a compress-box supported on said carrier, of a movable bottom fitted in said compress-box and provided with a rod or leg extending down through said carrier, and a stop with which said leg engages to cause the expulsion of the brick after the same has been pressed, substantially as described. 5th. In a brick-pressing machine, the combination, with a vertically-moving carrier supporting the compress-box, and operated by toggle levers, of spring buffers arranged to receive the downward stroke of said carrier and toggle levers, substantially as and for the purpose described. 6th. In a brick-pressing machine, the combination, with the compress-box provided with a movable bottom, of a vertically-movable carrier upon which said compress-box is supported, said carrier having a cut-out portion immediately under said movable bottom, substantially as and for the purpose described. 7th. The combination, with the vertically-guided carrier J, of the toggle levers E, F, tie-bar G, link H, and operating handle I, substantially as described. 8th. The combination, with the arch A, of the vertically-adjustable platen O, removable plate P, and operating screw R, substantially as and for the purpose described. 9th. The combination, with the compress-box L, of the movable bottom M, carrier J, leg N, set-screw F, and stop G, substantially as described. 10th. The combination, with the vertically-guided carrier J, toggle levers E, F, tie-bar G, link H, and operating handle I, of the vertically-adjustable platen G, removable plate P, and operating screw R, substantially as described.

No. 26,170. Sleigh. (*Traineau.*)

Andrew Ward, (assignee of Silas F. Hewitt), New York, N.Y., U.S., 7th March, 1887; 5 years.

Claim.—1st. The combination, with a sleigh body having the cross-beams E, the front cross-bar F and the raves e connected with the beams and cross-bar, of the runners G hinged at their front ends to said cross-bar, the knees L having a hinged connection with the cross-beams, the braces M also having a hinged connection with the cross-beams, and screws m and a for locking the knees and braces respectively in their unfolded position, substantially as described. 2nd. The combination, with the raves e, cross-beams E and front cross-bar F of a sleigh body, of the runners G hinged at their forward extremities to said front cross-bar, the knees L having a hinged connection with the cross-beams, and the braces M also having a hinged connection with the cross-beams, and fastening-devices for locking the knees and braces respectively in their unfolded position, substantially as described. 3rd. The combination, with the raves e and cross-beams E of a sleigh body, of the runners G hinged at their forward ends, the knees L having a hinged connection with the cross-beams and each provided with the box N outside its hinged point to receive the upper ends of the runner standards, and the braces M also having a hinged connection with the cross-beams, substantially as described. 4th. The combination, with a sleigh body having a folding back B and folding sides C, of a rearwardly-folding dash-board D adapted to fold down upon the forward ends of the sides, substantially as described. 5th. The combination, with a sleigh body

and runners, of a folding back folding-sides, a folding dash-board and braces hinged to the raves on their connecting cross-bar, and having a detachable connection with the folding dash-board, substantially as described. 6th. The combination of the cross-beams E, E, floor A having side strips a, a and cross-bar d, the folding back B, folding sides C, C, folding dash-board D, raves e, e, cross-bar F, hinged braces H, H, and a fastening for connecting said dash-board and braces, substantially as described. 7th. The combination of the strip K, hinged knee L, hinged brace M, and fastenings for securing said knee and brace in an unfolded position, substantially as described. 8th. The combination of the cross-beams E, E, folding knees L, L, hinged braces M, M, runners G, G, and fastenings for securing the knees and braces thereby securely supporting the runners in an unfolded position, substantially as described.

No. 26,171. Snap Hook, Halter Ring, etc.

(*Crochet à Ressort, Anneau de Cheèvre, etc.*)

Gustave Bernd, Macon, Ga., U.S., 7th March, 1887; 5 years.

Claim.—A snap hook, halter ring, or the like, provided with a straight shank, combined with a round swivel, a socket eccentric to the shank and adapted to receive the knot of the rope, as shown.

No. 26,172. Step Ladder. (*Echelle double.*)

Quintin Macnider, Belleville, Ont., 7th March, 1887; 5 years.

Claim.—1st. In a step-ladder, the combination of the steps s, B, the side bars A, A pivoted to the ends of the steps, near the front and rear edges, the legs D, provided with curved upper ends pivoted to the front sides, bars A, and the staples E attached to the rear bar A and receiving the curved ends of the legs, substantially as described. 2nd. The combination of the steps B, the side bars A, A pivoted to the steps near their front and rear edges, the legs D having curved and serrated ends, and the staples E attached to the rear bars A, and adapted to engage the serrations of the legs D, substantially as described.

No. 26,173. Machine for Sewing on Buttons.

(*Machine à coudre les boutons.*)

Joseph Mathison, Lynn, Mass., U.S., 7th March, 1887; 5 years.

Claim.—1st. The combination of the needle bar, the cast-off bar, means for moving said bar laterally, means substantially as described, whereby the cast-off bar is positively moved by and with the needle bar during parts of the vertical movements of the latter, the spring finger on the needle bar bearing on the cast-off bar, the shoulder, whereby the cast-off is supported above the work during a part of the operation, and afterwards allowed to be depressed by the spring finger, and the spring catch whereby the cast-off bar is briefly supported in a raised position, as set forth. 2nd. The combination of the presser foot, the loop-throwing device composed of the slotted arm c, the pressed foot in the presser foot and provided with the hook e, the spring-pressed hooked arms d, d pivoted to the arm c, and means substantially as described, for oscillating said loop-throwing device, as set forth. 3rd. In a button-sewing machine, the combination of a work-supporting arm, loop, or stitch-forming mechanism, substantially as described, and a gum cup located in said arm in close proximity to the loop or stitch-forming mechanism, whereby the gum is prevented from drying on the thread between the cup and the needle, as set forth. 4th. In a button-sewing machine, the combination of the loop-forming devices, including the oscillating loop-spreading devices and the oscillating thread-guide or take up, whereby the second loop is tightened after it has been thrown over the button-head by the loop-spreader, and the intermittently operating thread-clamp, whereby the thread is grasped and held while the thread-guide acting as a take-up is drawing in said loop, as set forth. 5th. In a button-sewing machine, the combination, with the button-supplying mechanism, the loop or stitch-forming mechanism, including the loop-spreading devices, of the presser-foot having the button-arresting elevations, whereby each button is supported while a loop is being thrown over its head, as set forth. 6th. The combination, with the needle and cast-off bars, and means substantially as described, for reciprocating them vertically, the carrier H supporting said bars and provided with the arm V, the pivoted lever W connected to said arm V and provided with the arm B, the connected arms C, D adapted to oscillate independently of the lever W, said arm D having an adjustable screw bearing against the arm B of the lever W, the cams J, K, and the spring G, whereby the lever W and C are pressed toward said cams, as set forth. 7th. The combination of the needle bars, its carrier means, substantially as described, for varying the throw of the carrier to regulate the initial positions of the needle, and the length of its feed movement, the oscillatory button raceway, and means, substantially as described, whereby the initial position of the raceway may be varied to correspond with the adjustment of the needle, as set forth. 8th. The combination, with the presser foot, of the loop-spreading arm having the V-shaped or triangular plate or hook e, and the needle-receiving slot d, and mechanism for oscillating said arm, as set forth. 9th. The combination, with the loop-throwing or spreading arm having the hook e, and mechanism for oscillating the same, of the plate i at the rear side of said arm, as and for the purpose specified. 10th. In a button-sewing machine, the combination of the button-supplying mechanism, the needle, the cast-off and their operating mechanism, the loop-spreading devices and their supporting and operating mechanism, the work-supporting arm, the oscillating thread-carrier located in said arm, and the tension spring also located in said arm below the work, and serving to keep the thread taut between the thread-carrier and the work, as set forth. 11th. The combination, with the presser foot, of the loop-spreading arm pivoted to the presser foot, and having the V-shaped triangular hook e rigidly attached to its swinging end, said hook being formed to enter and spread a loop, as described, and mechanism for oscillating said arm. 12th. The combination of the presser foot, the loop-spreading arm having a loop-engaging hook rigidly attached to its swinging end, means for oscillating said arm, and the spring-pressed