

### No. 21,843. Cutting Apparatus for Mowers and Reapers. (*Lames de Faucheuses Moissonneuses.*)

Henry T. Sanford, Albany, (Assignee of Erasmus J. Sanford, Lawrence.) N.Y., U.S., 9th June, 1885; 5 years.

**Claim.**—1st. In a cutting apparatus for mowers and reapers, the finger guard bar A formed by the combination of the bar *a*, guard fingers *a*<sup>1</sup>, provided each with a horizontal slot *a*<sup>2</sup> having its lower side *x* above the plane of the upper side surface of bar *a*, and the shoulders *s* at the front edge of said bar, keepers *d*, *d*<sup>1</sup> provided with shoulders or lips *e*<sup>1</sup> and shoulders *e*<sup>2</sup>, and plate D fixed to the heel end of said bar, and provided with locking tongue *a*<sup>4</sup>, substantially as and for the purposes set forth. 2nd. In a cutting apparatus for mowers and reapers, the combination, with finger guard bar A having bar *a*, guard fingers *a*<sup>1</sup>, provided with horizontal slot surfaces *x* and shoulders *s*, and keepers *d* provided with shoulder lips *e*<sup>1</sup> and shoulders *e*<sup>2</sup>, and plate D having locking tongue *a*<sup>4</sup>, the removable stationary cutter bar B formed by bar *b* provided with holding notch *b*<sup>2</sup>, adapted to engage with said holding tongue *a*<sup>4</sup>, and the V shaped knives *b*<sup>1</sup> screwed to bar *b*, substantially as and for the purposes set forth. 3rd. In a cutting apparatus for mowers or reapers, the combination of the fingers guard bar A, constructed in its several parts as above described, removable stationary cutter bar B, constructed in its parts as above described, of the reciprocating bar C above described, all arranged substantially as set forth for the purposes specified.

### No. 21,844. Weather Strip. (*Bourellet de Porte.*)

William J. Devers, Providence, Pa., U.S., 9th June, 1885; 5 years.

**Claim.**—The combination of the hinged door A, having the strip E<sup>1</sup> at the hinged edge formed with a tongue *e* projecting in a plane parallel with the plane of the door, and strip D secured to the opposite edge of the door, and having a groove *d* in a plane at right angles to the tongue *e* and the plane of the door, with the grooved and tongued strips D<sup>1</sup>, d<sup>1</sup>, E<sup>1</sup>, e<sup>1</sup> on the door casing, for engaging respectively the tongue *e*<sup>1</sup> and the groove *d*, as herein shown and described.

### No. 21,845. Button Hole Attachment for Sewing Machine. (*Machine à Coudre faisant les Boutonnieres.*)

John K. Harris, Springfield, Ohio, U.S., 9th June, 1885; 5 years.

**Claim.**—1st. In a button-hole attachment for sewing machines, the combination, with the feed bar and the cloth clamp, of a continuous rack having rounded end, an intermittingly rotated pinion and a guide for retaining the latter in gear with said rack, substantially as hereinbefore set forth. 2nd. In a button-hole attachment for sewing machines, the combination, with a cloth clamp, of a feed plate or bar therefore, provided with a continuous adjustable or extensible rack having semi-circular or rounded ends, an intermittingly rotating pinion, and an adjustable or extensible guide for retaining the latter in gear with the said rack, substantially as hereinbefore set forth. 3rd. In a button-hole attachment for sewing machines, the combination, with an oscillating and longitudinally movable feed bar carrying a cloth clamp at its forward end, and provided at its rear end with a continuous adjustable or extensible rack having rounded ends, an intermittingly rotated pinion and an adjustable or extensible guide for the pinion stud, whereby fabrics may be automatically moved to entirely work different sized button-holes, without turning the goods or cloth clamp bodily around the vertically line in which the needle reciprocates, substantially as hereinbefore set forth.

### No. 21,846. Brick Machine. (*Machine à Brique.*)

Joel Tiffany, Hinsdale, Ill., U.S., 9th June, 1885; 5 years.

**Claim.**—1st. In a brick-machine, the combination, with the mould, of horizontally-reciprocating plungers constituting the sides thereof, a main pressure lever for operating both of said plungers, connecting rods and an intermediate lever connecting said main lever with said plungers, and a cam for operating said main lever, substantially as described. 2nd. In a brick-machine, the combination, with the mould, of horizontally-reciprocating plungers constituting the sides thereof, a vertically-reciprocating plunger constituting the bottom thereof, and a sliding plate constituting the top thereof, substantially as set forth. 3rd. In a brick-machine, the combination, with the mould, of horizontally-reciprocating plungers constituting the sides thereof, a main pressure-lever for operating both of said plungers, connecting-rods and an intermediate lever connecting said main lever with said plungers, a cam for operating said main lever, and an adjustable stop for regulating the drop of the main lever, substantially as described. 4th. In a brick-machine, the combination, with the mould, of horizontally-reciprocating plungers constituting the sides thereof, a sliding top frame provided with two openings respectively for the feeding of the clay and discharge of the brick, and with an intermediate plate between said openings, which constitutes the top of the mould, and cams for reciprocating said frame intermediately to bring the feed-opening, the plate and the discharge-opening successively into position over the mould, substantially as set forth. 5th. In a brick-machine, the combination of the side plates covering the ends of the mould and constituting a part of the supporting-frame, angle-bars connecting said plates provided with attaching webs at their ends, and bolts uniting said plates and webs, substantially as described. 6th. In a brick-machine, the combination of the side plates constituting the ends of the mould, the angle-bars connecting said side plates, said bars being each composed of a transverse horizontal and a transverse vertical web connected at their ends by vertically-reciprocating plungers sliding on said horizontal transverse webs, the vertical webs, and a reciprocating top frame, substantially as described. 7th. In a brick machine, the combination, with the mould, of the horizontally-reciprocating plungers C, C<sup>1</sup>, the lever K, the connecting-rod L connecting said lever with the plunger C<sup>1</sup>, the up-

right lever N, the connecting-rod M, connecting plunger C with said lever N, and the lever O connecting said lever N with said lever K, substantially as described. 8th. In a brick-machine, the combination of the side plates A, A, the sliding top frame E, the plates *d*, *d*<sup>1</sup>, the horizontally-reciprocating plungers C, C<sup>1</sup>, the lever K, the connecting-rod L connecting said lever with the plunger C<sup>1</sup>, the upright lever N, the connecting-rod M connecting said plunger C with said lever N, and the rod O connecting said lever N with said lever K, substantially as described. 9th. In a brick-machine, the combination of the side plates A, A, the sliding top frame E, the plates *d*, *d*<sup>1</sup>, the horizontally-reciprocating plungers C, C<sup>1</sup>, the lever K, the connecting-rod L connecting said lever with the plunger C<sup>1</sup>, the upright lever N, the connecting-rod M connecting plunger C with said lever N, the rod O connecting with lever N with said lever K, the vertically-reciprocating plunger D, the lever P and the cams for actuating said lever, substantially as described. 10th. In a brick-machine, the combination, with the mould, of the horizontally-reciprocating plungers C, C<sup>1</sup>, the lever K, the connecting-rod L connecting said lever with the plunger C<sup>1</sup>, the upright lever N, the connecting-rod M connecting plunger C with said lever N, the lever O connecting said lever N with said lever K, and the adjustable stop S for regulating the drop of lever K, substantially as described. 11th. In a brick-machine, the combination, with the mould, of the sliding top frame E provided with openings *h*, *i*, and having horizontal arms E<sup>1</sup>, vertical arms E<sup>2</sup>, E<sup>3</sup>, dependent from said horizontal arms, and a horizontal arm E<sup>4</sup> having a dependent lug E<sup>5</sup>, a shaft and disks on said shaft provided with pins, which engage said dependent arms and lugs, substantially as described. 12th. In a brick-machine, the combination, with the mould, of the horizontally-reciprocating plungers C, C<sup>1</sup>, the vertically-reciprocating plunger D, the main lever K, the connecting-rods and intermediate lever connecting said horizontally-reciprocating plungers with said main lever, the sliding top frame provided with arms E<sup>1</sup>, E<sup>2</sup>, E<sup>3</sup>, E<sup>4</sup> and lug E<sup>5</sup>, the lever P, the driving shaft G and cam disks on said driving-shaft, for actuating both levers K, P, and said top frame, substantially as described.

### No. 21,847. School Slate. (*Ardoise d'Ecole.*)

Thomas A. M. Moore, Chatham, Ont., 10th June, 1885; 5 years.

**Claim.**—1st. In combination with a school slate, the hinged covers D, D, for the prevention of obliteration of exercised in writing or figures, which it is desirable to preserve upon the slate, substantially as described. 2nd. In combination with a school slate, the hinged covers D, D, provided with printed, written, stamped, or engraved exercises in writing, arithmetic, tables, or other suitable subjects for the study and education of the pupil, substantially as set forth. 3rd. The combination, in a school slate, of the slate A, the frames B, B, B<sup>1</sup>, B<sup>2</sup>, the hinge pin C, the cover or covers D, D, provided with hinges E, substantially as and for the purposes hereinbefore set forth.

### No. 21,848. Explosive Compound.

(*Composition Explosible.*)

Touissant Pkey and Oscar Fallentein, Daron, Germany, (Assignees of Herman Lisch, Fünfkirchen, Austria,) 10th June, 1885; 10 years.

**Claim.**—1st. The process of making explosive compounds, which consists in mixing the other substances of the said compound with a solution of gun-cotton in nitro-compound of the aromatic group of coal-tar derivatives, substantially as hereinbefore described. 2nd. The explosive compound composed of chlorate or chlorates and sulphur, sulphide or sulphides, admixed with a solution of gun-cotton in nitro-compound of the aromatic group of coal-tar derivatives, in the proportions substantially as herein set forth. 3rd. The explosive compound composed of chlorate or chlorates, nitrate or nitrates, and sulphur, sulphide or sulphides admixed with a solution of gun-cotton in nitro-compound of the aromatic group of coal-tar derivatives, in the proportions, substantially as herein mentioned.

### No. 21,849. Sole Sewing Machine.

(*Machine à Coudre les Semelles.*)

The Goodyear Shoe Sewing Machine Association, (Assignee of Zachary T. French,) Boston, Mass., U.S., 10th June, 1885; 5 years.

**Claim.**—1st. The needle segment, its attached curved needle and the needle guide provided with a pin 6 and a toe or projection 5, combined with the block *b* and with the independently movable guide moving lever to operate the needle guide, substantially as described. 2nd. The link *g*<sub>2</sub>, the needle segment with which it is connected, the stud to support the said segment, and the needle guide mounted loosely on the said stud and provided with a pin 6, combined with the guide moving lever *g*<sub>1</sub> and spring connected with the guide moving lever, to operate substantially as described. 3rd. The needle segment, needle, needle guide and link *g*<sub>2</sub>, combined with the lever *e*<sub>2</sub>, with which the said link is adjustably connected, to alter the length of the loop drawn by the needle, substantially as described. 4th. In a sole sewing machine, the welt guide and the welt guide slide, combined with means, substantially as described, to operate the said slide positively in both directions. 5th. The welt guide slide provided with the screw nut *d*<sub>2</sub>, the lever *d*<sub>1</sub>, slotted link *d*<sub>3</sub> and the adjustable block to vary the extent of the positive throw of the said welt guide slide and its attached welt guide, substantially as described. 6th. In a sole sewing machine, the sticker bar provided with teeth and offset, as described, combined with the gear *h*<sup>1</sup> and the rock shaft *d*<sub>4</sub>, and means to move it, substantially as described.

### No. 21,850. Sole Sewing Machine.

(*Machine à Coudre les Semelles.*)

The Goodyear Shoe Sewing Machine Association, (Assignee of Zachary T. French,) Boston, Mass., U.S., 10th June, 1885; 5 years.

**Claim.**—1st. The table or work support and its connected slide provided with teeth, combined with a lever and a pawl to engage the