

*Claim.*—In a waggon brake, the combination of a bent lever A, plate B, notched arc B<sup>1</sup> having the braces b<sup>1</sup>, b<sup>2</sup>, pawl C having extensions I I, i, link E, lever D, spring e, rod F, plate L and pivot bolts and nuts a, G, b, b<sup>1</sup> and d, adapted to enter holes b, d and G, all constructed and connected substantially as herein set forth.

**No. 22,081. Waterproof Covering for Roofs, etc.** (*Composition Imperméable pour les Toitures, etc.*)

Alfred Ford and Jacob A. Archer, London, Eng., 14th July 1885; 5 years.

*Claim.*—The manufacture of an improved material, applicable as a waterproof covering for roofs and other like purposes, by coating wire gauze, substantially in the manner and for the purposes, herein before described,

**No. 22,082. Telephone.** (*Téléphone.*)

James H. Rogers, New York, N.Y., U.S., 15th July, 1885; 5 years.

*Claim.*—1st. In combination with the horizontal diaphragm of the telephone transmitter, connected to a battery and forming one pole of an electric circuit, as described, the flattened plate or button lying loosely and simply by its own weight upon the diaphragm, and connected to a line wire and forming the opposite pole of said circuit, as set forth. 2nd. In a telephone transmitter, the combination of a horizontal diaphragm, forming one pole of an electric circuit, with a flattened plate or button, forming the opposite pole, and resting on the diaphragm adapted to receive sound vibrations therefrom, as described, the said plate having a quantity of mercury in its upper part, and a connection with a line wire consisting of a dipping needle, substantially as set forth. 3rd. In a telephone transmitter, the combination of a horizontal diaphragm, the enclosing case, trumpet mouth-piece, the flattened contact plate or button resting on the sensitive diaphragm, as described, the said plate or button being provided with a cavity in its top adapted to receive mercury, and the superimposed dome provided with a dipping needle and a regulating screw all substantially as and for the purposes set forth. 4th. In combination with the horizontal diaphragm, forming one pole of an electric circuit, and the contact plate or button provided with mercury in its upper portion, as described, the superimposed dome F, having a screw B, connected to a line wire, and having a needle N, as and for the purposes set forth.

**No. 22,083. Pump Valve.** (*Souape de Pompe.*)

William L. McKenzie and Thomas Kelly, Petrolia, Ont., 15th July, 1885; 5 years.

*Claim.*—The vulcanised rubber a, metal cylinder pistons B, B, in combination with the hollow spindles A, A, substantially as and for the purposes hereinbefore set forth.

**No. 22,084. Screw.** (*Via.*)

Mary A. Ihrig, Springfield, Ohio, U.S., 15th July, 1885; 5 years.

*Claim.*—1st. As a new article of manufacture, a screw, the head of which is of greater diameter than the screw threaded shank and has a series of upwardly projecting barbs or points, substantially as described. 2nd. As a new article of manufacture, a screw the head of which is square, and has two or more V-shaped grooves formed in the face thereof, to thereby form pyramidal points, substantially as described. 3rd. A screw the head of which is square and has two transverse V-shaped grooves cut in the face thereof, the length and greatest breadth of the grooves being equal, or nearly so, to the width of the screw head, to thereby form four pyramidal points one at each corner of the screw-head, substantially as and for the purpose described.

**No. 22,085. Ladder Section, Step Ladder and Staging Combined.** (*Section d'Echelle, Echelle à Queue et Echaffaudage Combinés.*)

Renben L. Hitchcock, Cornwall, Ont., 15th July, 1885; 5 years.

*Claim.*—1st. As a new article of manufacture, a ladder section, constructed of two converging sides having slots C at the ends and connected by bars D, the bar at top having round ends D<sup>1</sup> projecting from the sides, and provided with shoes B secured by bolts B<sup>1</sup> to protect the ends of the section, as set forth for the purpose described. 2nd. The combination, with the ladder sections, of the metallic bails G having hooks H, I, whereby the sections are prevented from spreading at the foot, and one of the bails G adapted to hold a pail suspendedly, as set forth.

**No. 22,086. Ferment.** (*Ferment.*)

Mrritz Polumenthal, Gruman Near Berlin, Germany, 15th July 1885; 15 years.

*Claim.*—An extract from runnet, consisting of chymosin which is free from pepsin and soluble clear and free from slims, in combination with an indifferent and preserving substance, salt sugar or the like, in a dry or dissolved form.

**No. 22,087. Paving Block or Brick.**

(*Bloc ou Brique de Pavé.*)

Thomas A. Huguenin, Charleston, S.C., U.S., 15th July, 1885; 5 years.

*Claim.*—1st. The herein described compound consisting of coal tar, bitumen, pine-gum and alum, combined in substantially the manner and proportions and for the purpose stated. 2nd. A brick or block cured by immersion in a mixture of coal tar bitumen pipe-gum and alum, substantially as described.

**No. 22,088. Metal Picket and Fence.**

(*Pieu et Clôture Métalliques.*)

Russel G. Olmsted, Hamilton, Ont., 15th July 1885; 5 years.

*Claim.*—1st. In a metal fence picket, the ornamental metal top B, constructed with the hole C, shoulder a and socket d, the metal bottom D, constructed with opening E shoulder b and socket c, in combination with the gas pipe A to which they are secured, substantially as specified. 2nd. In a metal fence, the combination of the metal picket A B D, constructed substantially as shown and described, with the top and bottom gas-pipe rails F, G.

**No. 22,089. Brush Making Machine.**

(*Machine à faire les Brosses.*)

Edward L. Fenuty, Halifax, N.S., 15th July 1885; 5 years.

*Claim.*—1st. In a brush making machine, substantially as described, the combination of the following instrumentalities and operative mechanism therefor, to wit: a pattern device for determining the location of the tuft holes in the blank, a device for moving the blank laterally in respect to the pattern boring and tufting devices, a boring device for boring the tuft holes, a feeding device for feeding the brestles hair or fibre to the tufting device, a tufting device for inserting the brestles hair of fibre in the tuft holes, a device for adjusting the black vertically in respect to the tufting device, a device for connecting the boring device and tufting device with the pattern device in such a manner that they may be conjointly operated, a device for adjusting the boring device, horizontally in respect to the pattern device, and a shipping device for automatically stopping the operations of the tufting and boring devices, substantially as set forth. 2nd. In a brush making machine, the combination, substantially as set forth, of the following instrumentalities, to wit: a pattern device for determining the location of the tuft holes in the blank, a device for moving the blank laterally in respect to the pattern boring and tufting devices, a boring device for boring the tuft-holes, a feeding device for feeding the brestles hair or fibre to the tufting device, a tufting device for inserting the bristles hair or fibre in the tuft holes, a feeding device for feeding the wire to the tufting device, a cutting device for cutting off the securing wire, a device for adjusting the blanks vertically in respect to the tufting device, a device for connecting the boring device and tufting device with the pattern device in such a manner that they may be conjointly operated, a device for adjusting the boring devices horizontally in respect to the pattern device, and a shipping device for automatically stopping the operation of the tufting and boring devices. 3rd. The combination, substantially as set forth, of feeding rolls one of which is provided with grooves and holes, whereby it is adapted to serve as a pattern device, means for adjusting the pressure of said rolls, means for operating said rolls means for moving said rolls laterally, and means for arresting the lateral movement of the rolls at the desired points. 4th. In a brush making machine, substantially as described, the pattern wheel D provided with the longitudinal grooves M, circumferential grooves N, holes a and blank side 56, substantially as set forth. 5th. The combination, substantially as set forth of feed rolls, means for adjusting the same vertically and laterally a boring device and a tufting device. 6th. The combination, substantially as set forth, of rolls one of which is provided with grooves and holes whereby it is adapted to serve as a pattern roll, means for moving said rolls laterally, means for arresting the lateral motion of said rolls in accordance with the pattern holes, a boring device and a tufting device. 7th. The combination, substantially as set forth, of a tufting socket, means for moving said socket vertically in respect to the bed of the machine, a plunger and means for operating the latter. 8th. The combination, substantially as set forth in a brush machine, of a feeding device, a pattern device a tufting socket, a plunger therefor and a wire feeding device, said plunges being provided with cutting edges adapted to sever the wire. 9th. The combination, substantially as set forth, of a pattern device, a boring device a tufting device and a bristle feeding device having a roller provided with teeth inclined reversely to the revolution, of the same. 10th. The combination, substantially as set forth, of a boring device, a tufting device and a feeding device for feeding the blanks to the boring, and tufting devices consisting of the rollers D, E, bed F, lever G and operative mechanism therefor. 11th. In a brush making machine, substantially as described, a pattern device for determining the location of the tufting holes in the blank, consisting of the roller D, bar K, levers G, L and operative mechanism therefor, combined and operating substantially as set forth. 12th. In a brush making machine, substantially as described, a device for moving the blank laterally in respect to the pattern, boring and tufting devices consisting of the bed F, bars O, P, racks Q, shaft S, pinions R, wheel T and operating mechanism therefor, said elements being combined and operating substantially as described. 13th. The combination, substantially as set forth, of a pattern device, a tufting device, an intermediate boring device, and means for horizontally adjusting said boring device relative to said pattern and tufting devices. 14th. In a brush making machine, substantially as described, a feeding device for feeding the brestles hair or fibres to the tufting device, consisting of the hopper A, roller i, rocking shafts j, fingers k, bars k, crank l, bar m, spring n, rod z, lever 3, bar 6, disks p and operative mechanism therefor, all combined and operating substantially as set forth. 15th. The combination, substantially as set forth, of a tufting tube, a clutch lever 8 for feeding wire to said tube, a lever 11 for actuating said clutch lever, a cam for moving the actuating lever and a spring for restoring said levers to their normal positions. 16th. The combination, substantially as set forth, of a tufting tube mechanism for feeding bristles to said tube, a wire-feeding mechanism, a die within said tube and a plunger for cutting off and inserting the wires. 17th. In a brush making machine, substantially as described, a tufting device for inserting the bristles hair or fibre in the tufting holes, consisting of the vertical tube or socket 17, plunger 16, cross-head 19, rods 20, cross-bar 5, pitmans z, disks p and operative mechanism therefor, all combined and operating substantially as set forth. 18th. In a brush making machine, substantially as described, a device for adjusting the blank vertically in reference to the tufting device, consisting of the slide U screws 22 nuts 23, slides P, bars O and bed F, the parts