

champer or the sole of the awl A, and edge-bender I, under the arrangement described, so that the awl shall first penetrate the sole from the inner channel to the proper depth and the edge-bender shall then bend over the point of the awl that portion of the sole between the said point and the edge of the sole, 6th. In combination with the needle A, awl A, and edge-bender I, operating together as described, the yielding last support B, having an up and down movement and locked rigidly in place at proper intervals; 7th. The combination with the sliding stock C, which carries the rotary needle A, of the means herein described or their substantial equivalent for varying the length of movement of said stock in order to obtain loops of different sizes as required for light or heavy work; 8th. The combination of the awl A, edge-bender I, and channel-guide W, all supported in and moving with a laterally sliding reciprocating head K, arranged in the frame of the machine above the needle stock, said parts being actuated and operating together as set forth; 9th. In the combination with the reciprocating sliding head K, which carries the awl A, and edge-bender I, of the means described, or their substantial equivalents for varying the length of movement of said head and consequently regulating the feed; 10th. The combination, in a machine for sewing boots and shoes, with awl A, and edge-bender I, operating together, to bend the edge over the point of the awl, of an opener or separator B, arranged to operate in connection with said parts and between the sole and the last whether said combination be used in connection with a straight or curved needle.

No. 2131. BRADLEY S. BRYANT, Hanson, Mass., U. S., 7th March, 1873, for 5 years: "Mode of Finishing the soles of Boots and Shoes." (Manière de finir les semelles de chaussures.)

Claim.—A boot or shoe-sole having its outer or treading surface either in whole or in part covered or coated with a flock or disintegrated material as described.

No. 2132. DAVID G. CONGER, Chicago, Ill., U. S., 7th March, 1873, for 5 years: "A Roofing Compound." (Une composition de toiture.)

Claim.—A roofing compound made of the following materials: reduced or paving coal, tar or asphaltum, resin, Akron or Newark cement, sand and field-plaster, or gypsum, the whole mixed together in the proportions described.

No. 2133. A. HUNTER & EGBERT H. OSBORNE, Quincey, Ill., U. S., 8th March, 1873, (Extension of Patent No. 2082) for 5 years: "A Grain Cleaner." (Un nettoyeur à grain.)

No. 2134. ALONZO HITCHCOCK, New York, U. S., 10th March, 1873, for 5 years: "Process for Covering or Incorporating any Vegetable Substance with Graphite." (Procédé pour enduire ou incorporer les substances végétales avec de la plombagine.)

Consists in incorporating earth and metals, but more especially graphite with parchment during the transformation of vegetable fibre into the material known as parchment, or analogous substance.

Claim.—1st. Any vegetable material incorporated or covered with graphite by means substantially as set forth in the specification; 2nd. The process described for combining graphite or suitable materials with vegetable fibre or matter, the same consisting in treatment with acids or chemicals so as to form a gelatinous substance and applying the graphite or other material thereto as set forth.

No. 2135. WILLIAM P. SCOTT, Chatham, Ont., 10th March, 1873, for 5 years: "A Car-Coupler." (Un attache-char.)

A self-coupler, which is actuated by the pressure of the cars when they come together.

Claim.—1st. An improved slide C, actuated either by the front of the car or by a sleeved buffer when said improved slide passes under the guide or guide-tube F, and has a slot in it for the purposes described; 2nd. The altered guide-tube F; 3rd. A spiral spring or springs, whenever said form of spring is used for supporting or keeping any pivoted link E, in a horizontal position each separately or combined for the purposes specified.

No. 2136. FREDERICK G. FORD, Bridgeton, N. J., U. S., 10th March, 1873, for 5 years: "A Furniture Castor." (Une roulette de meuble.)

Claim.—The annular flange or ferrule A, provided with pins or teeth i, on its upper edge, and formed on the upper side of the plate D, of the castor described to fit in a corresponding groove b, on the end of the leg and the pins or teeth to penetrate into the wood.

No. 2137. WILLIAM H. RUDDEN, Toronto, Ont., 10th March, 1873, for 5 years: "A Metallic Blind." (Une persienne en métal.)

The shutter is so constructed as to possess the properties of a Venetian blind or sun shade and to be ordinarily fire and burglar proof.

Claim.—1st. A shutter composed of an angle iron or steel frame A, eccentric movable metallic slats B, B lugged at the ends to form bearings d, d, and pivoted there to the frame A, on shouldered rivets and wired at one edge to connect them with the upright or transverse working rod or bar C; 2nd. Combination with the movable slats B, B, and working bar or rod C, the stat lock or fastener composed of the screw G, and worm wheel H, with its crank-pin g, and the cross-bar or brace E, which carries the lock.

No. 2138. RUSSELL HAWKES & HENRY J. PAINE, Providence, R. I., U. S., 10th March, 1873, for 15 years: "A Spark and Smoke Consumer for Locomotives." (Un appareil fumeur pour les locomotives.)

Claim.—1st. The combination of the pipes or conductors K, I, with the outer and inner shells c, c, and one or more guides e; 2nd. The combination of the conductors K, and spark return tubes I, with the outer and inner shells c, c, and deflecting cone G, and the flanges e, and d, and guides e; 3rd. The combination with the fire-box and boiler in a locomotive of one or more air and spark pipes or conductors I, and deflecting arch J, M; 4th. The combination with the interior of the boiler and smoke-stack in a locomotive of one or more pipes I, and one or more spark conductors K, so arranged in relation to each other that the sparks will descend or pass down through the spark conductor or conductors and be returned through the pipe or pipes, flue or flues passing through the boiler, on a line or nearly so with the pipe or pipes admitting air from the front of the engine; 5th. The combination with the smoke-chamber and boiler of a locomotive of a draft passage open and extending from front to rear of the engine and a spark conductor for directing or conducting the sparks down through the inside of the smoke-stack so that they will be impinged upon and be mixed with and pass back to the fire-box with the air received at the front of the boiler as it is forced back by the forward movement of the locomotive; 6th. The combination with the smoke-stack of a locomotive boiler of one or more spark conductors, the lower open end or ends of which intersect a draft passage or passages leading from the front of the smoke-chamber back to the fire-box.

No. 2139. THOMAS J. O'SULLIVAN, Hamilton, Ont., 10th March, 1873, for 5 years: "A Nutmeg Grater." (Une râpe à muscade.)

Claim.—1st. The stationary bed or bottom K, in combination with the sliding grater A, A; 2nd. The sliding grater consisting of the plates A, A, sliding in the grooved bed K, and provided with the handle B; 3rd. In combination with the bed K, and sliding grater A, A, the tube or feed E, and spring H; 4th. In the arrangement of the hole F, in the bed K, to receive the nutmeg; 5th. The arrangement of the socket e, marker D, rod e, in combination with the bed K, grater A, A, tube F.

No. 2140. JOHN D. FITCH, Ancaster, Ont., 10th March, 1873, for 5 years: "A Truss." (Un bandage herniaire.)

Claim.—1st. A wide belt truss A, constructed as shown, with movable pads B, elastic gussets c, c, d, d, perineal straps d, d, in combination with the straps g, and buckles f; 2nd. In the movable pads B, in combination with the belt A.

No. 2041. PITT W. STRONG, Farmersville, & JAMES MANUAL, Morton, Ont., 10th March, 1873, for 5 years: "A Cheese Box." (Une boîte à fromage.)

Claim.—1st. A cheese-box composed of sections A, telescoping together to receive two or more cheeses for transportation; 2nd. The slats B, and cord C, applied as set forth for holding the sections A, together in the manner described.

No. 2142. ROBERT W. PARK, Philadelphia, Pa., U. S., 10th March, 1873, for 5 years: "A Vapour Burner." (Un bec à gaz.)

Relates to the effective vaporizing of the hydro-carbon from which the ignitable gas is generated.

Claim.—1st. The combination, in a burner of the tip D, the opening d, through which issues a supplemental jet of gas, and a plate heated by the said jet, and having a tongue, extending into the supply-pipe; 2nd. The combination of a hood or shield K, with the heating-plate or wing H; 3d. The combination of the ring and tongue H, h, heated by a supplemental flame, the shield K, and the sleeve K', encircling the supply pipe; 4th. The combination of the hood K, heating-plate H, sleeve K', tube or passage G, and tail-piece K', projecting from the said sleeve.