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INVENTIONS PATENTED.

No. 1901. CHARLES LEVEY, Toronto, Ont., 18th December, 1872, for 5 years: "Improvement in Steam Engines" (Perfectionnement dans

in Steam Engines." (Perfectionnement dans les chaudières à vapeur.)

Consis sof ageneral simplification of the steam engine by placing the working parts in the most tavorable position to resist the strain, thereby reducing the weight of material used and diminishing the labor and cost of fitting, sio.

Claim.—1st. Widening the bed or frame of a horizontal engine at one end as shown at b. fig. 2, so that an entire cylinder can be dropped down to the contre of its diameter without otherwise increasing the width of the bed; 2nd. Casting the cylinder and bed in one piece so that the centre of cylinder is in the plane of the top of the bed; This is illustrated by fig. 18, if the flanges e, e, are removed, 3rd. The firm or design of bed as shown with enlargement at fig. 2, b, to facilitate the removal of cylinder cover; 4th. Forming the shaft bearing in the bed or frame and adjusting the same as shown in figs. 1, 4, 5, 6 and 7, and 5th. Dividing the steam-picket and casting one half with the bed and the other half with the steam-valve or steam chest and inserting an entire cylinder or sleeve between the steam chest and inserting an entire cylinder or sleeve between the balves as shown in figs. 8, 9, 10, 11 and 12.

No. 1902. Louis Smith, Sherbrooke, Que., 18th December, 1872, for 5 years: "Process of treating Wood for the Manufacture of Paper." (Procédé de traitement du bois pour la fabrication du papier.)

Relates to a method of preserving the fibre of the wood whilst being reduced into pulp, by arresting the process at a certain stage

of the operation.

(laim.—1st. The application to the apparatus or boiler of a tester or regulator n, h, n. for testing materials during the process of reduction from wood or other kindred substance to a fibrous pulp; and 2nd. The application of a safety valve l, to a rotary apparatus or boiler.

No. 1903. EDMUND A. DAY, Oberlin, Ohio, U.S., 18th December, 1872, for 5 years: "A Hose Valve." (Une valve de tuyau élastique.)

An adjustable elastic nozzle attached to a metallic tube.

Claim.—1st. The lever handles C, Cl. cross bars E, and El, and springs E, in combination with the harrel A, hose B, and adjustable clastic nozzle B1: 2nd. In combination with the cross-bars E, and El, the two separate elastic bands or springs H and I.

o. 1904. Nelson W. Goodrich, Vergennes, Vt., U.S., 18th December, 1872, for 5 years: "A Horse Shoe Nail Machine." (Machine à clou à cheval.)

CIOU & CHEVAL.)

For smoothing, pointing, and shearing horse shee nails after they have been formed in an ordinary machine.

Claim.—1st. The concentric cylinders A, B, to adapt them for carrying and holding the nails, while being operated upon hy the dies and punches: and 2nd. The combination of the dies C. I, punches D, G. H. sliding-plate E, and endless screw O, with the concentric cylinders A, B, and with the operating gearing.

No. 1905. FRANCIS W. MALLETT, New Haven, Conn., U. S. 18th December 1872, for 10 years: "A Needle Machine." (Machine à aiguilles.)

Relates to a mechanism which receiving the blanks in length for two needles transfers them from one device to another thereby forming the eyes in the centre and pointing the two ends.

two needles transfers them from one device to another thereby forming the eyes in the centre and pointing the two ends.

Ulaim.—Ist. In a hopper, the two checks Bi, Bi, which form the throat a, of the hopper, one of which checks is made adjustable so that the said throat may be made of greater or less width; 2nd In combination with a hopper for supplying the blank wares, the revolving shaft Bi, with its came ai, arranged in the relative position to the throat a; 3rd. In combination with a hopper for delivering the blank wires, the slide C, having a longitudinal reciprocating movement and constructed with a slot Cs, and provided with a pivoted bar C3, by means of which the said reciprocating movement may be arrested without stopping the other parts of the machine; 4th. In the parallel slides D, having an up-and-down and longitudinal reciprocating movement, combined with the jaws e, e, to receive and translate the blanks for successive operations, 5th. In the longitudinal screws L, constructed with the hook L at their ends arranged to receive the blanks within the grasp of the said hooks, and combined with the mills V, and G. Gi, over which the blank is carried by the said revolving screws L, the slide L2 and bed H, the said slide L3, having a reciprocating movement. The In the longitudinal revolving screws L, the slide L2 and the bed H, the said slide L3, and the revolving screws L. having each a longitudinal reciprocating movement independent of the other. Sth. In the arranement of the springs p, above the flexible strips m, in the slide L2; 9th In the arrangement of the mill V, and slotted plate W, when to both is imparted a traverse vibratory or reciprocating movement: 10th. In combination with the mills G. Gi, the bais P, and their pressure-spring R1; 11th In combination with the mills G. Gi, the bais P, and their pressure-spring R1; 11th In combination with the mills G. Gi, the bass P, and their pressure-spring R1; 11th In combination with the mills G. Gi, the bass P, and their pressure-spring R1; 11th In c

No. 1906. ALEXANDER A. MURPHY, Montreal, Que., 18th December, 1872, for 5 years: "A Store Stool." (Siège de magasin.)

A revolving and adjustable seat capable of being acted upon by foot-pressure.

Claim.—The standard a, of any pattern or design, in combination with the reversible socket c.

No. 1907. George Bolton, Amprior, Ont., 18th December, 1872, for 5 years: "A Hot Air Drum." (Un poêle sourd à air chaud.)

Claim.—1st. The combination of the damper and ventilator A, with key B. connected with the main portion of the drum by a double flanced collar, 2nd. The combination with the hot air-drum C, and cone bettom of drum D, with smoke-channel E, E, B, and F, and G, air-pipe entrance and discharge.

No. 1908. GILBERT R. WILLETT, Annapolis, N. S., 18th December 1872, for 5 years: "A Washing Machine." (Machine à laver.)

Consists of a fluted roller pressed down by springs bearing upon its centre and attached to a base-piece.

Claim.—Ist. The combination of the fluted roller a, with the smooth rollers c, c, c: 2nd. The springs d. d. so connected to the base f, that they may be readily detached therefrom . 3rd. The springs d, d. connected to the shaft b. by caps g, g, by means of which the pressure of the springs upon the shaft may be increased, and 4th. The combination of the base f, with the buttons h, and i.