

crank case end of the low pressure cylinder, and provided with a sleeve or casing inclosing the trunk of its piston, substantially as set forth. 3rd. In a single acting engine, a cylinder having a closed internal cushion chamber on the side of its piston, opposite to that which receives steam pressure, substantially as set forth. 4th. In a single acting engine, the combination of a cylinder and a piston working therein, and having a trunk on its side opposite that which receives steam pressure, said trunk passing through a head in the adjacent end of the cylinder, and forming with the piston a closed cushion chamber therein, substantially as set forth. 5th. In a single acting engine, the combination of a cylinder, a piston working therein and having a trunk on its side opposite that which receives steam pressure, said trunk passing through a head in the adjacent end of the cylinder, and forming with the piston a closed cushion chamber therein, and a check or relief valve controlling a passage leading out of said cushion chamber, substantially as set forth.

No. 25,352. Steam Engine Governor.

(Gouverneur de Machine à Vapeur.)

Francois M. Rites, Pittsburgh, Penn., U. S., 13th November, 1886; 5 years.

Claim.—1st. The combination of a weighted eccentric mounted adjustably upon a driving shaft, a distribution valve coupled to and actuated by said eccentric, and a pressure device, whereby the action of gravity and inertia, or either, upon the valve mechanism, is neutralized by an equivalent opposing force, substantially as set forth. 2nd. The combination of a weighted eccentric mounted adjustably upon a driving shaft, and a distribution valve coupled to and actuated by said eccentric, said valve being unbalanced as to pressure in the direction opposed to the action of its gravity and that of its operating mechanism, substantially as set forth. 3rd. The combination of a weighted eccentric mounted adjustably upon a driving shaft, a distribution valve coupled to and actuated by said eccentric, and an auxiliary piston working in a chamber adapted to be supplied with steam or other expansive fluid, substantially as set forth. 4th. The combination of a weighted eccentric mounted adjustably upon a driving shaft, a distribution valve coupled to and actuated by said eccentric, said valve being unbalanced as to pressure in the direction opposed to the action of its gravity and that of its operating mechanism, and an auxiliary piston working in a chamber adapted to be supplied with steam, or other expansive fluid, substantially as set forth. 5th. The combination of a weighted eccentric mounted adjustably upon a driving shaft, a distribution valve coupled to and actuated by said eccentric, an auxiliary piston working in a chamber adapted to be supplied with steam or other expansive fluid, and a differential check valve governing a passage leading out of the piston chamber, said valve carrying a piston of smaller diameter, and a pipe or passage leading from the valve chest to the face of said smaller piston, substantially as set forth. 6th. The combination of an eccentric mounted adjustably upon a driving shaft, a distribution valve coupled to and actuated by the eccentric, a governor, consisting of a single weight pivoted on said shaft and connected to the eccentric, and a centrifugally acting spring connected to the weight and a pressure device for counteracting the gravity of the valve and connected operating mechanism by an equivalent opposing pressure of steam, or other expansive fluid, substantially as set forth. 7th. The combination, with an automatic cut-off mechanism, of a pressure device acting to alternately resist and assist the movement of the reciprocating parts, and thereby to counteract the inertia thereof at each terminal of the traverse of the valve, substantially as set forth.

No. 25,353. Machine for Nailing on the Heels of Boots and Shoes. (*Machine à Clouer les Talons des Chaussures.*)

Louis Coté, St. Hyacinthe, Que., 13th November, 1886; 5 years.

Claim.—1st. The combination, in a sole and heel nailing machine, of the standard D, provided with plunger E, having projections L and the rod F, head G, having nail-receiving holes H, said holes also receiving and guiding said projections L, as shown and described, follower-block A, slide bar A', toggle-joint II, I, and a device for actuating the said toggle-joint by means of a treadle B₁, and counter-balance weight G₂, with said treadle B₂, and counter-balance weight G₂, as described, the whole constructed and arranged, substantially as shown and described. 2nd. The combination, in a sole and heel nailing machine, of the standard D, provided with plunger E, having projections L and the rod F, head G, having nail-receiving holes H, said holes also receiving and guiding said projections L, as described, follower-block A, slide bar A', toggle-joint II, I, and M₁, M₂, connecting rod P₁ and treadle B₂, the whole constructed and arranged substantially as shown and described. 3rd. The combination, in a sole and heel nailing machine, of the standard D, provided with plunger E, having projections L and the rod F, head G, having nail-receiving holes H, said holes also receiving and guiding said projections L, as shown and described, follower-block A, toggle-joint II, I, and M₁, M₂, connecting rod P₁, treadle B₂ and counter-balance weight G₂, the whole constructed and arranged substantially as described and shown. 4th. The combination, in a sole and heel nailing machine, of the standard D, provided with plunger E, having projections L and the rod F, head G, having nail-receiving holes H, said holes also receiving and guiding said projections L, as shown and described, follower-block A, toggle-joint II, I, having adjustable eye G₁, the whole constructed, arranged and operated substantially as described and shown.

No. 25,354. Steam Engine. (*Machine à Vapeur.*)

Henry H. Westinghouse, Pittsburgh, Penn., U. S., 13th November, 1886; 5 years.

Claim.—The combination, in a compound engine, of a cylinder or cylinders having piston spaces of differential volumes, a main or steam distribution valve adapted to effect successively the admission of boiler steam to the smaller piston space, the exhaust of steam therefrom into the larger piston space, and the exhaust from the

larger piston space, an eccentric mounted on the crank-shaft with the capacity of movement transversely to the crank line, and having its strap coupled to the stem of the distribution valve, and a governor fixed upon the crank-shaft and coupled to said eccentric, substantially as set forth.

No. 25,355. Washing Machine.

(*Machine à Laver.*)

Alfred Grenier, Boucherville, Que., 13th November, 1886; 5 years.

Résumé.—Dans une machine à laver de forme polygone, les baguettes mobiles prismatiques et les cadres polygonaux D, en combinaison avec le brasseur F, G, H, M, le réservoir A, B, E, N, et le support à torsion L, le tout tel que ci-dessus décrit et pour les fins sus-mentionnées.

No. 25,356. Steam Engine Governor.

(Gouverneur de Machine à Vapeur.)

Francois M. Rites, Pittsburgh, Penn., U. S., 13th November, 1886; 5 years.

Claim.—1st. The combination, of an eccentric or crank pin pivoted upon a crank shaft, a distribution valve adapted to reciprocate in a substantially vertical plane, and coupled to said eccentric, and a governor weight pivoted upon the crank-shaft and coupled to the eccentric so as to move in opposite direction thereto, substantially as set forth. 2nd. The combination of a crank arm, an eccentric pivoted thereto on one side of the axis of the crank shaft, a governor weight pivoted thereto on the opposite side of the axis of the crank-shaft, a link connecting the governor weight and eccentric on the side of the crank shaft farthest from the free end of the weight, and a spring bearing against the crank arm and the governor weight, substantially as set forth. 3rd. The combination of a crank arm, an eccentric and a governor weight, each pivoted thereto and coupled by an intermediate connection, so as to move in opposite directions upon their pivots, a pin coupled to the governor weight and passing freely through the crank arm, and a spring bearing against an abutment on the crank arm and against a stop on said pin, substantially as set forth.

No. 25,357. Latch Operating Device.

(Appareil pour faire Mouvoir les Clenches.)

Orvellas H. Gilbert, Newark, N.J., 13th November, 1886; 5 years.

Claim.—1st. In latch operating devices, the combination of a rose plate having a shank perforation therein, a latch-actuating lever pivoted to said rose-plate, above the said shank perforation and extending down below the latter, and having an end or finger, which, when the rose-plate is secured to the door, projects into the lock or latch case and engages with the latch, and a lever-actuating plate connected with and operated by a rotating knob, and which engages with the latch-actuating lever, causing the same to draw the latch whether the knob is turned to the right or to the left, substantially as and for the purposes set forth. 2nd. In latch-operating devices, the combination, with a lever pivoted within, a rose above the shank perforation and extending down below the said shank perforation, and having a bent end adapted to engage with and actuate a latch of a reversible plate, adapted to engage with either side of said pivoted lever, and mechanism, by means of which said reversible plate is caused to engage with and operate, said lever, for the purposes set forth. 3rd. In latch-operating devices, in combination, a rose-plate, a lever pivoted within said rose-plate above the shank perforation therein, and extending down below said perforation, having a bent end adapted to engage with and actuate a latch, a reversible plate, having posts d, d', thereon, which engage with said lever, and a knob handle with which said reversible plate is connected, and by which it is operated, for the purposes set forth. 4th. In latch-operating devices, in combination, a rose-plate, an outer fixed shank, a knob composed of two portions h, g, the portion h being provided with an inner shank k, having a recess K therein, a bolt j, the head of which rests in the recess K, a reversible plate secured to the inner end of the bolt, provided with posts d, d', and a lever pivoted to the rose, above the shank perforation, all said parts being arranged and adapted to operate substantially as and for the purposes set forth.

No. 25,358. Heel Counter Machine.

(*Machine à Contreforts de Chaussures.*)

Louis Coté, St. Hyacinthe, Que., 13th November, 1886; 5 years.

Claim.—In a machine for shaping material into heel-counters, the combination of the frame A, shaft C, former D and mould E being set eccentrically the one to the other, as described, so as to have the space F between the said former and mould narrower at one side than the other, substantially as described.

No. 25,359. Umbrella Holder.

(*Porte-Parapluie.*)

Charles W. Rodgers (assignee of Charles G. Ulings), Boston, Mass., U.S., 16th November, 1886; 5 years.

Claim.—1st. An umbrella holder, consisting of one or more brackets, each of which is formed with a ring, a stem and a screw, one end of the stem being cast around the head of the screw, and the other end formed with a ring, the whole forming one rigid piece, whereby the bracket may be screwed to the wall or other support without the use of other tools, substantially as described. 2nd. An umbrella holder, consisting of a ring bracket composed of a wire ring, a stem of cast metal and a screw, the stem being cast around the head of the screw and around the side of the ring, so that the three parts are rigidly united, and the bracket may be screwed to a suitable support without the aid of other tools, substantially as described. 3rd. The umbrella holder, composed of brackets, each of which is formed with a stem of cast metal, one end of which is cast around the head of a screw, and the other end formed with a ring, the whole