

tionnements au mouvement des soupapes pour les marteaux à vapeur.)

Claim.—1st. The combination of the slotted link L, with the blocks H, and I, and arm V; 2nd. The general arrangement and combination of the levers A, and B, quadrant E, shafts C and D, arms F, and G, rods J, and K, blocks H, and I, arms M, shaft N, and link I, with the tappet block S, arm O, rod Q, and valve spindle P, as described.

No. 3380. DANIEL JUDD, Insdale, N. Y., U. S., 30th April, 1874, for 5 years: "Machine for Excavating Earth." (Machine à creuser la terre.)

Claim.—1st. The combination of the excavator scoops S, with the bars A, truss T, strain-rod R, and tension board d, constructed and arranged in the manner described; 2nd. The combination of the suspending chains C, arms M, and scoop S, as described; 3rd. The combination of the scoop S, arms M, chains C, and A, and the windlass mechanism consisting of the shaft r, provided with the pulley grooves v, v, and spur wheel W, pinion q, lever y, pawl u, and crank c, as described; 4th. The brackets K, K, constructed to serve as stops to the scoop in its rotation, in combination with the lever-latch i, stop p, and spring i, as described.

No. 3381. JOSEPH S. GARNER, Galena, Ill., U. S., 30th April, 1874, for 5 years: "Improvements in Washboards." (Perfectionnements aux planches à savonner.)

Claim.—The rollers H, H, with axles i, i, in combination with form A, bearings j, j, and cross bars b, and c, top piece d, and back-board e, as set forth.

No. 3382. JAMES SANDERSON, JR., Lindsay, Ont., 30th April, 1874, for 5 years: "Improvements on Washing Machines." (Perfectionnements aux machines à laver.)

Claim.—The arrangement of the perforated ribs F, and G, radially and segmentally secured to the revolving rubber-board E, in combination with a fixed board A, having radial graduated ribs as described.

No. 3383. THOMAS FETHERSTON, Fitzroy, Ont., 30th April, 1874, for 5 years: "Improvements on Window Blinds." (Perfectionnements aux jalousies.)

Claim.—1st. The slats A, held suspended together by the buttons C, entering holes in the flexible band B, in the manner set forth; 2nd. Suspending the blind by double or triple grooved pulleys F, F, and cords E, arranged as described, and collecting the pulleys F, F, by a cord G, passing over pulleys H, H, and operating the same by the cord J, passing over one of the grooves of the pulley in the manner set forth; 3rd. The staples L, applied to the ends of the slats to receive cords K, passing over pulleys M, N, both cords uniting and operating both ends of the slats simultaneously, for lifting the blind as set forth.

No. 3384. WILLIAM GOWEN, Wausau, Wis., U. S., 30th April, 1874, for 5 years: "Improvements on Table Castors." (Perfectionnements des porte-huiliers.)

Claim.—A table castor or cruet frame, having an enlarged annular plate D, attached to or forming an integral part of the rotary plate C, for receiving plates, bowls and other table appurtenances as set forth.

No. 3385. JAMES OLIVER, South Bend, Ind., U. S., 30th April 1874, for 5 years: "Chilled Plough." (Charrue coulée en coquille.)

Claim.—The standard B, extended forward as shown at a, the mould-board and land side extending forward even with the standard forming a uniform curve which forms a seat for the coulter L, the part C being supported by the standard as set forth.

No. 3386. JOHN WOOD, and ROBERT WOOD, Leith, Scot., 30th April, 1874, for 5 years: "Apparatus for Straining Pulp." (Appareil à épurer la pâte à papier.)

Claim.—The novel combination of the strainer casing 6, with the internal perforated tube 16, having in connection with it the pump 7, and its actuating gear as described.

No. 3387. HENRY M. BAKER, WILLIAM F. STONE and JAMES H. VERMILYA, Washington, D. C., U. S., 30th April, 1874, (Extension of Patent No. 3054), for 5 years: "Sewing Machine." (Machine à coudre.)

Claim.—1st. The combination in a sewing machine of a bent driving shaft, or its equivalent, and a vibrating arm attached

thereto as a means of operating the shuttle carrier; 2nd. The combination of the cam upon the driving shaft and the levers I, and J, constructed and operating conjointly as described as a means of operating the feed of a sewing machine; 3rd. The adjustable fulcrum L, or its equivalent by means of which the length and the rise of the feed can be regulated simultaneously; 4th. In combination with a straight driving shaft in a sewing machine, an angularly bored cylindrical sleeve or its equivalent; 5th. The combination of the needle-bar, a slotted cam, attached thereto and a cam guide, the whole being arranged as described, so that the needle bar may be operated near to that side of the needle head which is next to the operator; 6th. The combination of the needle bar and the driving shaft of a sewing machine by means of a cam formed and arranged as described so that the power of the driving shaft will be thrown directly upon the needle-bar at the time when the needle is entering the goods.

No. 3388. DAVID F. JONES, Gananoque, Ont., (Assignee of John L. Shaw), 30th April, 1874, for 5 years: "Improvement on Shovel Handles." (Perfectionnement des manches de pelles.)

Claim.—A combined shovel handle and tamping bar constructed by attaching to an ordinary wooden shovel handle, the metallic hand piece or cylinder C, when constructed and operating as set forth.

No. 3389. JOHN A. KLEY, Chicago, Ill., U. S., 30th April, 1874, for 15 years: "Improvements on Chemical Fire Extinguishers." (Perfectionnements aux extincteurs chimiques d'incendie.)

Claim.—1st. The cylinder h, in combination with the stopper i, and spring K; 2nd. The combination of the plate D, with the collar E, and cap F, for suspending the bottle and compressing the packing; 3rd. The combination of the collar a, and pin or stop b, with the stem c, for preventing irregular discharges of the extinguisher; 4th. The combination of the bottle e, provided with an indentation q, with the arms B, pivoted plate K, and screw stem c; 5th. The combination and arrangement of the case A, collar s, plate D, cap F, and collar a, and pin b, with the stem c, and acid bottle C, as specified.

No. 3390. PETER MALLABY, Weston, Ont., 30th April, 1874, for 5 years: "Improvements in Cultivators." (Perfectionnements aux cultivateurs.)

Claim.—1st. A cultivator consisting of three or more detachable hinge sections A, A', A'', constructed and arranged as described. 2nd. The peculiarly shaped bulls D, in combination with the chisel pointed teeth E, arranged as described; 3rd. Attaching the handles F, to the sections A, A'', as described.

No. 3391. PETER K. DEDERICK, Albany, N. Y., U. S., 1st May, 1874, for 5 years: "Improvements on Hay Presses." (Perfectionnements aux presses à foin.)

Claim.—The method of double gearing the follower by the wheels H, on independent shafts and the pin I, passing through said wheels and the connecting rod in the manner described, in the driving pulleys connected to the driving shaft by friction devices; in a feeder W, working on a rock-lever X, in combination with a continuously operating press as described, the method of operating the feed, by a tappet on the connecting rod C, a connecting rod a, and a stud b, on said rod d, as specified; the feeder W, as air chamber or conduit in combination with the pressing chamber and screen bottom as described; the perforated or screen bottom j, in combination with the press chamber as specified; the combination of the adjusting mechanism with the sides K, of the press box arranged to be adjusted toward or from each other as specified, in the contracting hopper e, as described.

No. 3392. ALFRED SWINGLE and FRANK A. HUNTINGTON, San Francisco, Cal., U. S., 1st May, 1874, for 5 years: "Improvement on Fire Arms." (Perfectionnement des armes à feu.)

Claim.—1st. The breech piece B, with its U shaped extension or bed piece D, having the grooves or ways a, a, in combination with the barrel A, with its lug b, and projections or guides d; 2nd. The sliding barrel A, having its re-enforce, or enlargement I, bevelled at Z, in combination with the guard and guard plate lever F, F', with its recess H, having an inclined edge Z'; 3rd. The sliding barrel A, with its hollow case or cap E, in combination with the locking guard, and guard plate lever F, F', when the two provide a joint at j, by which the initiatory and final closing movement of the barrel against the breech is accomplished in the manner specified; 4th. In combination with the sliding barrel A, with its lug b, the vibrating lever j, with its saddle or semi-circular clasp ring K, or equivalent device as described; 5th. The annular groove W, around the breech pin, in combination with the annular flange upon the extremity of the barrel for the purpose specified; 6th.