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INVENTIONS PATENTED.

NOTE-Patents are granted for 15 years. The term of years for which the fee has been paid, is given after the date of the patent.

No. 29,784. Sewing Machine.

(Machine à coudre.)

Edward C. Bean, Herbert W. Reynold and Charles L. Reynold, Portsmouth, Eng., 1st September, 1888; 5 years.

Claim .- 1st. The combination of the adjustable second shuttle ar-Claim.—1st. The combination of the adjustable second shuttle arrangement placed horizontally and at right angles with the usual shuttle arrangement, and means for driving the second shuttle carrier from usual shuttle driving shaft, substantially as hereinbefore described and illustrated in the accompanying drawings. 2nd. The combination, with the shaft E. of the bevel wheels F and G, short spindle G:, suitably held and attached to carrier D:, as and for the purposes described. 3rd. The combination, with a movable shuttle arrangement, of the adjustable bevel wheel F, shaft E, wheel G and spindle G:, suitably held as described. 4th. The combination, with a needle bar provided with a right angle extension J:, of the needle holder J2, suitably secured to, and adjustable on the extension J:, as described.

No. 29,785. Trunk. (Coffre.)

John F. Zimmerman, Jersey, N. Y., U. S., 1st September, 1888; 5

years.

Claim.—1st. The combination, in a trunk having a hinged lid of greater depth than its body, a series of trays hold above each other and connected by arms or levers with each other, and with the body and lid of the trunk, substantially as shown and described. 2nd. The combination, in a trunk having a hinged lid of greater depth than the body or bottom part thereof, a series of trays connected together and to the body of the trunk by pivoted arms, and to the lids thereof by two arms at each end, substantially as shown and described. 3rd. The combination, in a trunk, of a hinged lid, a series of trays held above each other and connected together, and with the trunk and its lid, by arms pivotally attached to plates, or ears fixed to the trays and to the trunk, and its lid, substantially as shown and described. 4th. The combination, in a trunk, of a hinged lid of greater depth than the body of the trunk, a series of trays, pivoted arms connecting the trays together and to the body and lid, and a hinged front flap on the body adapted to fit in the front of the lid, substantially as shown and described 5th. In combination, the trunk A, the lid li, the trays and the pivoted arms connecting them together and to the body A, and the arm K. arranged as shown and slotted at 0, substantially as and for the purpose described. 6th. In a trunk having a series of trays adapted to be extended from the body of the trunk, and separated from each other by a system of arms or levers connecting said trays, and the body and lid, pivot plates or ears M for attaching the lover arms to the trays and body part of the trunk, as and for the purpose described. described.

No. 29,786. Sash Lock. (Arrêle-croîsée.)

John Jackson, Clinton, Iowa, U.S., 1st September, 1888; 5 years.

Claim -1st. The combination, with the upper and lower meeting-Claim—1st. The combination, with the upper and lower meeting-rails of a sash, of a sash-lock mounted on the former, the same consisting of a lock-case having a pivoted swinging lock adapted to take over the lower meeting rail, and a projecting lug arranged to be struck thereby and formed with a shoulder at its opposite end, and a pawl adapted to take against the shoulder when the sa-h is closed, and to be operated thereby when opened, substantially as specified. 2nd. The combination of the meeting-rail 1, the casing 4, provided with the securing flanges 41 and 5, the lock 8 mounted on the shaft 7 in said casing and formed with the locking-face 9, and the shoulders 10, 12 and 16, and the pawl 13 mounted in the rear of the lock and formed with the opposite shoulders 15 and 17, of the recessed rail 2 having the trip 3, all combined and arranged to be operated as specified.

No. 29,787. Harrow Attachme Ploughs. (Herse-charrue.) Attachment for

William Smith, Ottawa, Ont., 1st Soptember, 1868; 5 years.

William Smith, Ottawa, Ont., 1st Soptember, 1883; 5 years.

Claim.—1st. A harrow attachment for ploughs, constructed substantially as herein shown and described, and consisting of an angularly bent and twisted frame carrying harrow-teeth to be attached to any plough. 2nd. L. a harrow attachment for ploughs, the combination, with any plough, of the angularly bent and twisted frame A. Fig. 1, having the bent part Bi B2 carrying the teeth B.B.B.B.and attached to the plough handle or the mould-board and plough handle, or other available part of the plough, by means of pivots, bolts or sockets, or in any suitable manner, substantially as set forth. 3rd. In a harrow attachment for ploughs, the combination, of the frame A. Fig. 1, carrying the teeth B.B.B.B attached to a plough at such an angle to the line of direction of the plough as that the teeth B.B.B.B. Balait thoroughly pulverize the soil just turned over by the plough and shall thoroughly pulverize the soil just turned over by the plough and at the same operation as that of ploughing, as set forth.

No. 28,788. Wind Mill. (Moulin à rent.)

James Kievell, Hamilton, Oat., 1st September, 1888; 5 years.

James kievell, framitol. U.R., ist September, 1838; 5 years.

Claim.—1st. The combination, with the upright shaft D, of the projecting arms K provided with perpendicular V-shaped blades J, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the shaft D, arms K and blade J, of the guard G, doors and guides E and El, rudder F, rotary table H, wheels I and platform A, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the shaft D, arms K, blades J, foot bearing C, braces N, and the wheel O, substantially as and for the purpose hereinbefore set forth.

No. 29,789. Deck Pipe. (Ecubier de pont.)

Frank S. Manton, Providence, R. I., U. S., 1st September, 1888; 15

years.

Claim.—1st. A cast iron windlass bitt provided with a deck pipe interral therewith, substantially as described. 2nd. A cast iron windlass bitt having a laterally projecting flange, and a deck pipe rising from said flange and integral therewith, substantially as described. 3rd. The cast iron windlass bitt A provided with the flange a, the deck pipe F rising from said flange, and the web Ez unting the deck pipe and the bitt, substantially as described. 4th. The combination, with the deck of a vessel having the hole F, of a cast iron windlass bit provided with a deck pipe integral therewith and expired in the hole F, the under surface of the bitt and deck pipe being planed smooth and coated with eement, substantially as declined and substantially as declined. being planed smooth and coated with cement, substantially as described.

No. 29,790. Target. (Cible.)

Thomas B. Ralston, Bothwell, Scotland, 1st September, 1888; 5

Claim.—1st. In a target for rifle practice, the combination, with the frame carrying the target and pivoted to a standard, of a lever mounted on the standard, and rolections, substantially as described, on the frame adapted to be engage 1. said lever, for maintaining the said frame in elevated or lowered put ition, as set forth. 2nd. In a target for rifle practice, the combination, with the swinning frame mounted on a standard and having projections and, of a lever fulcrumed on the standard for engaging said projections, and a counterpoise mounted on the frame for controlling its movement, substantially in the manner set forth. 3rd. In a target for each expectice, the combination, with the two frames swinging across the line of fire and each mounted on a shaft supported on a standar of sear wheels secured on said shafts and intermeshing, whereby shad frames are made to move simultaneously, as and for the purpose set forth, 4th. In a target for rifle practice, the signalling frame I, furnished with two swinging indicating boards or dises L. M. Is ing normally at right angles to the frame and capable of being turned and held parallel with it, the said frame being also provided with a counterpoise K. which, when the frame is released from its lowered position, swings it partially upward, substantially as described. 5th. In a target for rifle practice, the combination, of a target frame, and a signalling frame pivoted on a standard and connected together to operate reciprocally at the Claim.-1st. In a target for rifle practice, the combination, with