

Vol. I.—No. 12.

MARCH, 1874.

Price in Canada \$1.50 per An United States - \$2.00

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INVENTIONS PATENTED.

o. 3119 WILLIAM M. MIXER, New York, U. S., 20th February, 1874, for 5 years: "Improvements in Refrigerator Buildings." (Perfectionnements dans les glacières.)

Claim.—The combination of the metal or wooden grate E, caps D, and gutters C, over the ontire surface of the refrigerator in such a manner as to expose the entire under surface of the ice to the upper surface of the air contained in the refrigerator.

No 3120. SAMUEL R. WILMOT, Bridgeport, Ct., U. S., 20th February, 1874, for 5 years: "Improvement on Sheet Metal Tubing." (Perfectionnement dans les tuyaux métalliques.)

Claim.—An improved manufacture, in lock seamed, drawn, sheet metal tubing, with joint or seam consolidated, and metal condensed, hardened, stiffened, and smoothed as described, as results from drawing through a die or dies that impinge against, compress, corsolidate and draw upon all the exposed surfaces of the joint or tube.

No 3121. SAMUEL R. WILMOT, Bridgeport, Ct., U.S., 20th February, 1874, for 5 years: "Improvements on the Manufacture of Metal Tubing." (Perfectionnements dans la fabrication des tuyaux métalliques.)

cation des tuyaux métalliques.)

Claim.—Ist An improvement in the art of manufacturing tubing of sheet metal strips or skelps with interlocked joint or seam, the method of condensing and consolidating the joint or seam and also the metal of the tube proper, by drawing the same through a die or dies that impings against, compress, consolidate and draw i normall the exposed suinces of the joint or seam and of the tube irrelf. 2nd. An improved machine constructed as described of formers, guides and dies, organized so that a strip of metal is drawn therethrough or between the same to bend said strip into a tubular form, to turn its edges trinterlock one with mother, to close the seam thus produced, and to die draw such locked-seam tube by pressure applied in every direction both to the seam and body of the tube circunferentially inside and out, 3rd. The combination with the male former E, and its overhanging plate or portion d, with the female former E, and the taporing circular closing die H, with its inspering erroover, rl, arranged to converge in a forward direction: 5th. The grooved longuen, wing ic, and jog u, in combination with the grooved core or extension of particular closing die H.: 6th. The combination with the elements recited in the last preceding clause of claim of the drawing die I, and its grooved core K; 7th. The sectionally constructed core or core extension composed of detechable sections f, g, h, s, and k, arranged in relation with each other and with the dies H, I. Sith. The detechable male former E, with its autached core or forward extension in combination with a stop e, arranged to resist the draft on said former E, relatively to the tapering die H.

No. 3122. James A. Whelpley, Dartmouth, N. S., 20th February, 1874, for 5 years: "Improvements on Skates." (Perfectionnements

aux patins.)

Claim.—1st. The skate runner having horns or projections K, in advance of the sole and heel plates for attaching the front heel and toe clamps independently of the sole and heel plates; 2nd. The toe clamps and endemonently of the sole and heel plates; 3nd. The toe clamps adjustable clamps for skate attached directly to the runner independently of the sole and heel plates; 3nd. The toe clamps adjustable along the skate is 4th. The adjustable clamps for fastening the skate to the shoe fitted on the skate to be held or bound in any position by cramping thereon by the pressure of the shoe against them without any special fastening; 5th. A hand nut L. placed on the lower end of the adjustable clamp and arranged to fasten them were firmly against the runner; 6th. The semi-circular brace N, held in a slot 0, in the runner; 6th. The semi-circular brace N, held in a slot 0, in the runner and made fast to the sole or heel plate; 7th. The sole and heel plates fastened detachably to the runner by springing into connection with the nuches M. slots C, projections P, and the braces N, 8th. A vibrating heel place II, clamped by means of a pendant shank and a cam lever; 9th. A lever Q, having a slot and projecting point in combination with the shank of the heel clamp; lith. The arrangement of the heel clamp; lith. The arrangement of the heel clamp; lith. The arrangement of the heel clamp; the standard P, for recurring the beel plate is utilized for the pivot of the lever Q, whereby said heel clamp is fastened.

No. 3123. J. J. Thomas, and E. G. Thomas, Hamilton, Ont., 20th February, 1874, for 5 years: "A Railway Switch." (Une aiguille

de chemins de fer.)

Claim.—1st. The application of springs B. B., operated by suitable mechanism for springing the switch rails A, A. fr an assiding to a main line; 2nd. The arrangement of the rod H. pivoted lever F. rod O, handle E, and signal rod Q, in combination with the movemble switch rails A, A; 3rd. The arrangement and combination of the rod L. bell crank P. rod M. crank N. rod O, and lever C, operated on by the wheel of a locomotive or car for releasing the handle E, to close the movemble switch rails A, A, 4th The arrangement of the lever catches D, and K, for locking the handle E, as specified.

No. 3124. JAMES MILLS, Keeseville, N.Y., U.S., 20th Rehrmany 1874 for 5 years: "Improve-

20th February, 1874, for 5 years: "Improvements on Horse Shoe Nail Machines." (Perfectionnements aux machines à clou à cheval.)

Claim - The combination in a horse shee nail machine of a revolving roller hammer A, intermittingly revolving anvil D, and striking hammer J, constructed and arranged to operate as de-Ecribed.

No 3125. Thomas Rose, Georgetown, Ont, 20th February, 1874, for 5 years: "Machine for Cleaning Lamp Glasses." (Machine à nettoyer les verres de lampes.)

Claim. - The combination of the spring handle A, and the slide B, and form of the open and C. as set forth.

No. 3126. L. M. TOCKTON, and D. STOCKTON, Yarmouth, Ont., 20th February, 1874, for 5 years: "Composition for Tanning Hides." (Composition pour le tannage des peaux.)

Claim. - The process of tanning cow or other hides by mixing water, alum. salt and tartar emetic with the composition of terra japonica, boiling water, cream of tartar and sods in the proportions set forth.