wires c c and the double wire d having perforations e that receive a cord, the points of said wires c d interlapping. 2nd. The plate B provided with fixed wires c and removable wires d, and base A provided with screw a and nut b combined for use.

No. 12,238. Improvements on Skates. (Perfectionnements aux patins.)

Percival Everitt, London, Eng., 19th January, 1881; for 5 years.

Claim.—lst. In combination with the tread plate or plates of a skate, a toe strap or gaiter which extends below such tread plate or plates and is attached to a roller or rollers mounted in bearings below the tread plate and capable of being rotated so as to tighten up the toe strap or gaiter. 2nd. In combination with a toe strap or gaiter which is capable of being drawn In combination with a toe strap or gater which is capane of being drawn to tension by a roller, of equivalent device mounted below the tread plate, an adjustable heel piece for gripping with the aid of a fixed jaw the heel of the skater's boot, such gripping device being actuated by a screw spindle the thread of which gears into notches cut in the upper edge of the skate iron.

No. 12,239. Improvements on Sad Iron Heaters. (Perfectionnements aux chauffe-fers à repasser.)

John F. Curtice, Fort Wayne, Ind., U. S., 19th January, 1881; for 5 years.

Claim...1st. An air-tight sad iron heater having no bottom and divided into separate compartments, each of which is adapted to receive both the iron and the handle.

No. 12,240. Improvements on Metallic Boxes. (Perfectionnements aux boites métalliques.)

George F. Griffin, London, Eng., 19th January, 1881; for 5 years.

Claim.-1st. In a tin or metal box or vessel, the combination with the Claim.—lst. In a tin or metal box or vessel, the combination with the body or with the lid thereof, of a rib or ribs, projection or projections whereby the opening of the box or vessel may be effected. 2nd. A tin or metal box or vessel whether having a rib or ribs, projection or projections for opening the same or not, the soldering of the cover or lid to the body in such a manner that a space is left between the top edge of the body of the box or vessel, and the inside of the top of the cover or lid to permit the descent of this latter into or over the said rib or ribs, projection or projections, or simply upon the body when struck free from the solder. 3rd. A tin or metal box or vessel having a rib or ribs, projection or projections for opening the lid or cover, strengthening the body and lid so that the tin or other metal may not yield or bend in the operation of opening the box or vessel.

No. 12,241. Improvements in Thill Couplings. (Perfectionnements aux armons des limonières.)

Thomas Henry, Rockport, Ohio, U. S., 19th January, 1881; for 5 years.

Claim,—1st. The spring E in combination with the thill iron C, provided with the grooves cc. 2nd. The spring E, having the bends ef, in combination with the tie bar B, and thill iron C provided with the grooves cc. 3rd. The clip G, in combination with the spring E baving lug g, and the tie bar B of the clip A. 4th. The spring E, having curved end a, the bends c and f, and the bend b in combination with the clip A, tie bar B and thill iron C, when said spring is secured by means of the nut of clip

No. 12,242. Improvements in Baling Presses. (Perfectionnements aux presses d'empaquetage.)

Peter K. Dederick, Albany, N. Y., U. S., 19th January, 1881; for 5 years.

Claim .- 1st. The combination of the traverser I with the slide or staff J. 2nd. The combination of rine traverser I will the side or staff J. 3nd. The combination of pitman K with the slide or staff J. 3nd. The oblong gears G H, for operating the traverser of a baling press. 4th. The combination of the gears G H with the pitman and traverser, in a baling press. 5th. The top connection L, in combination with the crank L and gear H. 6th. The combination of the standards E E with rods P P. 7th. gear H. 6th. The combination of the standards E E with rods P P. 7th.

The combination of the rods S S, with the power shaft or horse lever. 8th.

The combination of the staff J, and connecting timber D. 9th. The comin the combination of the start J, and connecting timber D. 9th. The combination of the connecting timber D, with the press box A, and power frame E. 10th. In a traverser, the top composed of one or more leaves or springs made adjustable. 11th. In combination with the frame of a baling press the bent axles P secured to the same. 12th. In a baling press traverser, the spring top formed of one or more leaves secured together at their rear ends. 13th. The table R, in combination with the connecting timber D. 14th. That class of baling presses in which the hay or other loose fibrous material is pressed in sections by a reciprocating traverser with power connections under the horse lever or circuit of the horse, the press and power ends thereof connected over the sweep or borse lever, and through or by means of the horse lever or power shaft. 15th. The combination of a double and a single cam gear wheel whereby the velocity is doubled and the power in

No. 12,243. Improvements on Basket Machines. (Perfectionnements aux machines à paniers.)

John Cross, Oakville, Ont., 19th January, 1881; for 5 years.

Claim.—1st. In connection with the former D, employed in basket making, the plates F, hinged or pivoted upon the table E. 2nd. The plates F, hinged or pivoted to the table E, in combination with suitable mechanism hinged or pivoted to the table E, in combination with suitable mechanism for raising them from a horizontal to a vertical position. 3rd. In a machine for basket making, the side plates F, hinged to the table E and operated by suitable mechanism to cause them to assume simultaneously a vertical position, in combination with the end plates G, also hinged to the table E, and provided with the hinged support H. 4th. The bars J, hinged to the spindle L and set to operate the side plates F, in combination with the layers J.

No. 12,244. Improvements on Buckboards. (Perfectionnements aux planches voitures.)

Edouard Joubert and James H. White, Glen's Falls, N. Y., U. S., 19th January, 1881; for 5 years.

Claim .- 1st. In combination with the boards or slats C C and body H,

the central cross bar D above, and the cross bars G G below the boards, and the springs passing over the ends of the top cross bar, and their ends held in keepers a a on the ends of the under bars.

No. 12,245. Improvements in Washing Machines. (Perfectionnements aux machines à laver.)

John Kingleyside, Hamilton, Ont., 19th January, 1881; for 5 years.

Claim.-1st. The combination of the elastic rolls B, with closed diagonal corrugations with the longitudinally corrugated roll A, in combination with the bush F and spindle D, with the operating gear and spring pressure. 2nd. The frames C and the rods D, in combination with the rolls B, the bush F and spindle D. bush F and spindle D.

No. 12,246. Mechanism for Ornamenting Buttons. (Machine à orner les boutons.)

Jacob Y. Shantz, Berlin, Ont., (Assignee of Robert H. Isbell, New Milford Ct., U. S.,) 20th January, 1881; (Extension of Patent No. 5,650.)

No. 12,247. Improvements in Pulleys. fectionnements dans les poulics.)

Henry Turner, Montreal, Que., 20th January, 1981; for 5 years.

Claim-The combination of the cupped washer A having neck C, with the cupped washer D having opening E to agree with said neck C, the two united.

No. 12,248. Improvements in Smut-Mills. (Perfectionnements aux cylindres-émotteurs.)

William Lauhoff, Detroit, Mich., U. S., 20th January, 1881; for 5 years.

Claim.—The combination with an upper horizontal stone provided with a radial slot having closed longitudinal walls, of a slide which fits in the slot, and a set screw which engages with the upper edge of the slide.

No. 12,249. Improvements on Cigarette Machines. (Perfectionnements aux machines à cigarettes.

Léon J. Bejottes and Joaquin del Calvo, New York, U. S., 20th January, 1880; for 5 years.

Claim.—1st. The combination of the rolling apron and check plate with wrapper box and pasting device. 2nd. The combination of the paste box and stripping plate with the apron and reciprocating table. 3rd. The combination of the paste box, the stripping plate and wrapper box. 4th. The combination of the paste box. stripping plate and hooks H_I, with the cross bead and cams on the main shaft. 5th. The combination with the slides E, or a folding finger or fluorer S. of a folding finger or fingers Z.

No. 12,250. Improvements on Stove Pipe Drums. (Perfectionnements aux poelessourds.)

William H. Packbam and Edmund H. Wells, Dresden, Ont., 20th January 1881; for 5 years.

Claim.—The pipe F provided with damper G, terminating within the drum A having air ducts D, passing through the closed ends of the drum.

No. 12,251. Improvements on Paper Shovels.

(Perfectionnements aux pelles en papier.)

William H. Murphy and Alfred A. Howlett, Syracuse, N. Y., U. S., 20th January, 1881; for 5 years.

Claim.—1st. A shovel blade manufactured of compressed paper, as a new article of manufacture. 2nd. A paper shovel blade combined with a handle and plates or straps for securing the same.

No. 12,252. Machine for Rounding and Straightening Rods. (Machine à arrondir et redresser les tiges.)

Francis S. Malloch, Brockville, Ont., (Assignee of Joseph S. Seaman, Pittsburg, Pa., U. S.,) 20th January, 1881; (Extension of Patent No. 5.637) 5.637.)

and No. 12,253. Machine for Rounding Straightening Rods. (Machine arrondir et redresser les tiges.)

Francis S. Malloch. Brockville, Ont., (Assignee of Joseph S. Seaman, Pitts burg, Pa., U. S.,) 21st January, 1881; (Extension of Patent No. 5,637.)

No. 12,254. Machine for Jointing and Dressing Circular Saws. (Machine à affutet et redresser les scies rondes.)

Andrew J. Thayer and John E. Andrus, Leyden, (Assignees of William Potter, Boonville,) N. Y., U.S., 22nd January, 1881; (Extenson of Patent No. 5,671.)

No. 5,671.) No. 12,255. Improvements on Stump Extractors. (Perfectionnements aux arrache-

John S. Norcott, Fingal, Ont., (Assignee of Jasper A. Woodworth, Howard City, Mich., U.S.,) 22nd January, 1881; for 5 years.

Claim.—1st. The wheel A, with racks B and pawl C, adjustable brace D, frame E and anchor chain F. 2nd. The combination of the above named parts with the vertical roller G H, the pivoted lever I and runners J. The combination with wheel A having shaft B, of rope E, lever I and chains N Ni N. chains N N1 N2.