

frame *c* having a loop *f* on its under side, loop *g* at its ends, and a tongue *h* on its top side.

No. 12,694. Improvements on Heel Skate Fasteners. (*Perfectionnements aux attache-patins.*)

Uri G. Coon, Medina, (Assignee of Elijah S. Coon, Watertown, N.Y., U.S., 27th April, 1881; for 5 years.

Claim.—1st. As an improved article of manufacture, a skate fastener, constructed as described, consisting of a screw threaded hollow plug or thimble a dirt plate for covering the opening in the plug, and a spring for holding the dirt plate in place. 2nd. In heel skate fasteners, the plug B constructed, in circular form with a screw thread upon its exterior. 3rd. A spur or ice creeper G having a bar provided with a button I for holding it to the heel fastener.

No. 12,695. Improvements on Shoe Packs.

(*Perfectionnements aux mocassins.*)

Selby Lee, Ottawa, Ont., 27th April, 1881; for 5 years.

Claim.—As an improved article of manufacture, a shoe pack composed of the vamp A with tongue C, quarter B with sole D and heel E and front overlapping top F, with string G to bind the top against the ankle.

No. 12,696. Improvements on Electro-Magnetic Apparatus for Medical Use.

(*Perfectionnements aux appareils électro-magnétiques pour des fins médicales.*)

John Butler, New York, N.Y., U.S., 27th April, 1881; for 5 years.

Claim.—1st. An electro-magnetic apparatus for medical use having one electrode formed as a drawing roller and fitted in a handle for use as described. 2nd. In electro-magnetic apparatus for medical use, the permanent magnet A, manipulating roller B carried by the permanent magnet, and electro-magnet C fitted for rotation by the roller.

No. 12,697. Improvements on Boots and Shoes. (*Perfectionnements aux chaussures.*)

George Taylor, Lynn, Mass., U.S., 27th April, 1881; for 5 years.

Claim.—As an improved article of manufacture, a boot or shoe having an elastic gore *d* at the junction of the upper and sole, on one or both sides, and extending from the toe to shank.

No. 12,698. Improvements on Eyelets.

(*Perfectionnements aux œillets.*)

Franklin B. Bradley (Assignee of Adolph Delkescamp), Southington, Ct., U.S., 27th April, 1881; for 5 years.

Claim.—An eyelet having the edge of its outwardly extending flange turned over, beyond a position at right angles to the body of the eyelet and turned inward, or set preparatory to being inserted in the article to which it is to be applied.

No. 12,699. Improvements on Portfolios.

(*Perfectionnements aux portefeuilles.*)

Clark J. Brown, Randolph, N.Y., U.S., 27th April, 1881; for 5 years.

Claim.—1st. The portfolio A B C having pockets D E and diagonally ruled transverse flaps or strip F. 2nd. The combination, with the portfolio A B C having pockets D E, of a hinged copy slip holder G. 3rd. The combination, with a portfolio, of a pen-wiper stitched or otherwise secured to one of its covers. 4th. In a portfolio, a pen-wiper secured thereto in such a manner as to form a loop or pocket to receive the pen-holder. 5th. In a portfolio, the flap or strip F having diagonal guide lines. 6th. In a portfolio, the described strengthening strip *a*. 7th. The portfolio A B C having pockets D E.

No. 12,700. Improvements on Children's Carriages. (*Perfectionnements aux voitures d'enfants.*)

Charles Mattern, Jersey City Heights, N.J., U.S., 27th April, 1881; for 5 years.

Claim.—1st. The combination of the body of a child's carriage having an arc-shaped guide rod with separately sliding front and rear handles, and with devices by which the handles may be guided on and locked to the guide rod when drawn out. 2nd. The combination of the body of a child's carriage and of separately sliding and guiding front and rear handles, with an arc-shaped guide rod, to which the handles are connected by transverse brace rods and guide sleeves. 3rd. The combination, in a child's carriage, of the body A having an arc-shaped guide rod C with separately sliding and guiding front and rear handles B connected at their lower end by a transverse brace-rod b, the handle being locked in drawn out position by a slotted sleeve of the brace-rod and a spring catch *e* of the guide rod. 4th. The combination of the body of a child's carriage having bracket sleeves, with separately sliding front and rear handles connected by a transverse brace-rod at their lower ends, said rod fitting into recesses of the guide castings. 5th. The combination in a child's carriage, with the reach having a central supporting frame, of a storage-box basket, or other receptacle secured thereto.

No. 12,701. Improvements in Feed Water Heaters. (*Perfectionnements aux chauffeurs de l'eau d'alimentation.*)

Edward J. Hall, (Assignee of John W. Heylmun), Buffalo, N.Y., U.S., 27th April, 1881; for 5 years.

Claim.—1st. The combination with a feed water pipe A projecting into the steam space of a boiler or heater, in a downward direction, of a valve seat *c* formed in the lower end of the pipe, a valve D arranged below the mouth of the pipe C and mechanism whereby the valve is raised to its seat, when the pump ceases to eject water from the feed pipe. 2nd. The combination

with a feed water pipe A projecting into the steam space of a boiler or heater in a downward direction, of a valve seat *c* formed in the lower end of the pipe, a valve D arranged below the mouth of the pipe, and a guide ball E made wedge-shaped in cross section, whereby the spray is divided and deflected. 3rd. The combination with a feed pipe A, of the valve D having the lower portion of its wings *h* cut away to form an unbroken annular chamber *i* above the valve. 4th. The combination with a feed pipe A, of the valve D, provided with wings *h*, having bevelled or inclined faces K. 5th. The combination, with a feed pipe A opening into the steam space in a downward direction and provided with a valve seat *c*, of the valve D constructed with a flange *l* at the base of its conical face, whereby the water spray is deflected. 6th. The combination, with a feed pipe *a*, of the valve D provided with stem *e* and spring *g*, and the guide ball E made wedge-shape in cross section, and provided with lugs *n*, whereby the downward movement of the valve is limited. 7th. The combination, with a feed pipe *a* provided at its mouth with a valve seat C, of the valve D provided with wings *h* having their lower portions cut away to form an unbroken annular chamber *i* above the valve, and their upper portions constructed with inclined or bevelled faces K and a deflecting flange *l* arranged at the base of the conical face of the valve.

No. 12,702. Improvements on Machines for Covering Mouldings with Cloth.

(*Perfectionnements aux machines pour couvrir les moulures avec du drap.*)

John D. Ripson and Thomas Devens, Cambridge, Mass., U.S., 27th April, 1881; for 5 years.

Claim.—The glue receptacle B, in combination with a central curved strip *a* and a transverse roller *b* to hold the moulding against the strip, in combination with the frame D set diagonally to the plane of receptacle B and provided with rows of bristles *c d*, the ends of the bristles lapping. 2nd. The combination, with the reel E, guiding spool F and supporting wheels I K, of the spring guide G and grooved wheel H for applying the cloth to the upper surface of the moulding and pressing it down thereon. 3rd. The combination, with the mechanism for applying the cloth to the mouldings, and pressing it down thereon, of the supporting wheels I K having their edges grooved to prevent the removal of the glue from the under side of the moulding as it passes over the wheels. 4th. The combination, with the mechanism for applying the cloth to the moulding, and pressing it down to the lower edges thereof, of the yielding grooved wheels L N adapted to turn up the edges of the cloth on to and flatten them against the under side of the moulding. 5th. In combination with mechanism for applying the cloth and pressing it down to the lower edges of the moulding, the grooved wheels L N mounted on yielding spring sides M P and made removable therefrom. 6th. The combination with the mechanism for applying the cloth to the moulding, pressing it down thereon, and turning its edges up on to the under side thereof, of the spring pressure block R and supporting disk S for smoothing down and finishing the surface of the moulding. 7th. The described machine for covering moulding with cloth consisting essentially of the reel E, guiding spool F, spring guide G, grooved wheel H supporting wheels I K, yielding grooved wheels L N, pressure block R and supporting disk S, the whole combined to operate as described.

No. 12,703. Improvements on Machines for Mining Coal. (*Perfectionnements aux machines à miner la houille.*)

Francis M. Leehner and Joseph A. Jeffreys, Columbus, Ohio, U.S., 27th April, 1881; for 5 years.

Claim.—The combination of the following elements: A rotating cutter, a sliding carriage for said cutter, a screw-threaded shaft to advance the cutter carriage and also to rotate the cutter, and mechanism intermediate between said screw threaded shaft and the cutter, and arranged to transmit rotary motion from the screw threaded shaft to the cutter. 2nd. The combination of the following elements, viz.: a stationary bed frame, a cutter frame arranged to slide upon said bed frame, a rotating cutter mounted upon the sliding frame, an engine secured to the stationary frame, and mechanism operated by said stationary engine and arranged to advance the cutter frame and rotate the cutter. 3rd. The combination of the following elements, viz.: a stationary bed frame, a cutter frame arranged to slide upon said frame, a rotating cutter carried by said sliding frame, an engine cylinder situated in a horizontal axis, and an engine shaft mounted in rear of the sliding frame. 4th. The combination of the following elements, viz.: A stationary bed frame, a cutter frame which slides upon said bed frame, a rotating screw shaft, and a nut which engages with said shaft to advance the cutters, and which rotates in the same direction with the shaft. 5th. The combination of the following elements, viz.: A stationary frame, a sliding cutter frame, a cutter mounted upon said sliding frame mechanism arranged to rotate said cutter, a rotating screw shaft which advances the cutter frame and which is provided with a longitudinal slot, whereby it can engage with the cutter rotating mechanism. 6th. The combination of the following elements, viz.: a stationary bed frame, a sliding cutter frame, mechanism which withdraws the cutter frame, and a continuously rotating screw threaded shaft, arranged to alternately advance the cutter frame and to operate the withdrawing mechanism without being reversed. 7th. The combination of the following elements, viz.: a stationary bed frame, a sliding cutter frame, a screw-threaded shaft arranged to advance the cutter frame, and a second screw-threaded shaft arranged to withdraw the cutter frame and to be operated by the other said screw-threaded shaft. 8th. The combination, with the stationary frame, a sliding frame and a rotating screw-threaded shaft mounted upon the stationary frame, of the detachable nut sections F₁ F₂, the pivoted eccentrics E₁ E₂ and the straps F₃ F₄ respectively attached to the nut sections F₁ F₂. 9th. The combination, with a rotating bar, of diamonds arranged between the ends of same bar, to rotate in planes transverse to the axis of the bar. 10th. The combination, with rotating bar L, of the projection *l* extending from the face of the bar, and the diamonds *l* embedded within said projections between the ends of the bar. 11th. The combination of the following elements, viz.: The screw-threaded shaft G, the sliding cutter frame, the nut at K which engages with the thread of the shaft G to advance said sliding frame, a rotating cutter, the mechanism which rotates said cutter, and spur wheel P which operates the cutter, rotating mechanism and which is rotated by the shaft G and transverses said shaft longitudinally. 12th. The combination with the cutter, a sliding cutter frame, the shaft G and the nut at K, of