

deflecting ends attached thereto, the trip, drop-link, and prop, all constructed and arranged substantially as shown. 3rd. In a car-coupling of the class described, the combination of a vertical standard fixed to the draw-head, a bar having springs with spreading ends forming a rest, a hinged trip tapering upward from near the end to form a shoulder, as shown, a hinged drop-link out away on one of its under sides to form a catch, and a hinged prop, all arranged substantially as and for the purpose described. 4th. The combination, in a car-coupling of the class described, of the vertical standards, angularly-bent trip, springs, drop-link, prop and rubber spring block and wedge combined, all constructed substantially as shown and combined to co-operate substantially as set forth.

No. 37,107. Water Poise. (*Hydromètre.*)

Louis Menz and Paul Krebs, both of Berlin, Prussia, German Empire, 4th August, 1891; 5 years.

Claim.—1st. A straight edge of the kind herein referred to, provided near one end with a removable holder B, carrying two levelling tubes arranged at right angles to each other, or a single levelling tube having its end portions bent at right angles to each other, substantially as described and shown. 2nd. For a straight edge of the kind referred to, a holder B, constructed with two levelling tubes *d*, *d*, arranged at right angles to each other, or with a single levelling tube having its end portions bent at right angles to each other, substantially as described and shown.

No. 37,108. Art of Manufacturing Cast Iron Car Wheels. (*Procédé de fabrication des roues de chars en fonte.*)

Nathan Washburn, Boston, Massachusetts, U. S. A., 4th August, 1891; 5 years.

Claim.—1st. The herein described cast iron wheel having a non-laminated chilled thread, substantially as described. 2nd. The herein described process of manufacturing cast iron car wheels, which consists in pouring the molten cast iron into a mold chilling only the thread of the cast iron car wheel, and thereafter rolling or pressing the chilled thread to change its physical structure and make the chilled surface stronger and more durable, substantially as described.

No. 37,109. Apparatus for Stamping or Forming Metal Waists for Boots and Shoes. (*Appareil pour frapper ou former les déchets de métal pour chaussures.*)

Jones Syndicate, assignees of John Ward Jones and Edward Kynaston Bridges, all of London, England, 4th August, 1891; 5 years.

Claim.—1st. A machine or apparatus for the production of metal waists for boots and shoes having a male die such as *b*, with its two sides *bx*, *bx*, and its top surface curved or shaped to form the curve or shape required to be given to the metal waist, and this die *b*, acting in conjunction with a female die such as *c*, the latter corresponding in shape with the male die *b*, and having the movable spring centre piece *c'*, therein, substantially as and for the purposes hereinbefore described and illustrated in figures 1 to 4 of the drawings hereunto annexed. 2nd. The apparatus claimed in claim No. 1, in combination and acting in conjunction with the parts *b'*, *b''*, *b'''*, and *b''''*, for removing the metal sheet from the male die *b*, after the two edges of the metal sheet have been turned down, substantially in the manner hereinbefore described and illustrated in figures 1 to 4 of the drawings annexed. 3rd. A machine or apparatus for the production of metal waists for boots and shoes, having a die such as *e*, curved or shaped both on its top edge *e'*, and side face *e''*, according to the curve or shape required to be given to the finished metal waist, such die *e*, acting in combination and in conjunction with a die such as *g*, which latter is curved or shaped on its lower edge *g'*, and side face *g''*, to correspond with the curve or shape *e'*, *e''*, on the former, substantially as and for the purposes hereinbefore described and illustrated in the drawings hereunto annexed.

No. 37,110. Art of Manufacturing Crystallized Sulphate of Lime or Pearl. Hardening and of Bisulphites. (*Fabrication de sulfate de chaux cristallisé, etc.*)

James Beveridge, Gravesend, England, 5th August, 1891; 5 years.

Claim.—1st. The process hereinbefore described of manufacturing crystallized sulphate of lime or pearl, hardening and alkaline bisulphite, which consists in adding together in approximately the proportions hereinbefore specified, a purified aqueous solution of an alkaline sulphate and an aqueous solution of bisulphite of lime, and submitting the mixture to agitation, whereby crystallized sulphate of lime and a bisulphite of the alkali are produced by the double decomposition that takes place, substantially as set forth. 2nd. The process hereinbefore described of manufacturing crystallized sulphate of lime or pearl, hardening and bisulphite of soda, which consists in adding together in approximately the proportions hereinbefore specified a purified aqueous solution of sulphate of soda and an aqueous solution of bisulphite of lime, and submitting the mixture to agitation, whereby crystallized sulphate of lime and bisulphite of soda are produced by the double decomposition that takes place, substantially as set forth. 3rd. The process hereinbefore described of manufacturing crystallized sulphate of lime, which consists in first adding together in approximately the proportions hereinbefore specified a purified aqueous solution of an alkaline sulphate and an aqueous solution of bisulphite of lime, and sub-

mitting the mixture to agitation, secondly separating from the resulting liquor the crystallized sulphate of lime thereby produced, thirdly treating this crystallized sulphate of lime with a weak solution of a mineral acid, whereby normal sulphate of lime is removed, and fourthly, washing with water, all substantially as set forth.

No. 37,111. Locked Hook and Eye.

(*Fermeture de crochet et d'oeillet.*)

Thomas H. Smith and Sarah Jane Secord, both of Hamilton, Ontario, Canada, 6th August, 1891; 5 years.

Claim.—In a lock hook and eye, the eye 2 widened to form an opening 5, having a bent end 4 slightly curved, the hook 3 widened at its centre 7 with its widened end 6 slightly curved, both formed, combined and arranged substantially as described and for the purpose hereinbefore set forth.

No. 37,112. Thermo Electric Generator.

(*Générateur thermoélectrique.*)

Harry Barringer Cox, Hartford, Connecticut, U. S. A., 6th August, 1891; 5 years.

Claim.—1st. In thermo couples one or more conductors or radiators placed within the circuit of the same to produce a fall in thermic potential, substantially as described. 2nd. A thermo couple provided with one or more conductors or radiators connected between the hot and cold junctions of the couple and extending outwardly into the atmosphere. 3rd. A thermo-pile provided with one or more radiators or conductors connected between the hot and cold junctions of the pile, to produce a maximum fall in thermic potential, substantially as set forth. 4th. A thermo electric generator comprising a series of couples, each composed of two dissimilar elements cast together at their adjoining ends, and one or more conductors cast or connected with one of the elements within its length, for the purpose set forth. 5th. A thermo electric generator composed of alternate elements of unlike metals joined together at their opposite ends, every alternate element having a conductor connected to the element between its junctions with the adjoining elements, and extending in the direction of the junction to be kept cool, for the purpose set forth. 6th. A thermo electric pile formed in a single integral strip by casting, as set forth.

No. 37,113. Electric Belt. (*Céinture électrique.*)

Charles Andrew Bogardus, Syracuse, New York, U. S. A., 6th August, 1891; 5 years.

Claim.—1st. In an electric belt, the combination of a flat zinc folded over on one end, a covering of absorbent material, a wire wound around over the absorbent, then twisted at one end of the zinc and absorbent, then bent outwardly from the twist, then bent inwardly forming hooks, and bent to form forward projecting points. 2nd. In an electric belt, the combination of a flat zinc, folded over on one end, a covering of absorbent material, a wire wound around over the absorbent, and over a copper strip on the absorbent, then brought together and twisted close to the end of the zinc, then bent outwardly from the twist, then bent inwardly forming hooks and bent to form forward projecting points, said hooks being secured in the crimped fold of the adjoining zinc.

No. 37,114. Machine for Trimming and Branding Cigars. (*Machine pour dresser et marquer les cigares.*)

Wolf Garreston, New York, U. S. A., 6th August, 1891; 5 years.

Claim.—The combination, with a hand-lever mounted on a shaft, and bearing a knife adapted to trim cigars, of a rock-arm and shaft, the former bearing a brand, the knife mechanism, and the branding mechanism being intergearing or operatively connected so that in operating the knife the brand is thereby operated in the reverse direction, substantially as set forth.

No. 37,115. Pepsin and Process of its Manufacture. (*Pepsine et procédé pour sa fabrication.*)

Joseph LeRoy Webber, Detroit, Michigan, U.S.A., 6th August, 1891; 5 years.

Claim.—1st. In the manufacture of pepsin from macerated animals' stomachs in acidulated water, the process of clarifying the resultant solution, which consists in adding thereto sulphurous acid, substantially as and for the purpose set forth. 2nd. In the manufacture of pepsin from macerated animals' stomachs in acidulated water, the process of separating the pepsin from the peptone, which consists in clarifying the first solution, and then adding to the clarified solution, at a comparatively high temperature within the range specified, a sufficient quantity of sodium sulphate, thereby effecting precipitation of the pepsin without precipitating the peptone, substantially as described. 3rd. The process of manufacturing pepsin, which consists in macerating animals' stomachs in acidulated water, clarifying the resultant solution, adding to the clarified solution, at a comparatively high temperature within the range specified, a saturating quantity of sodium sulphate, thereby effecting precipitation of the pepsin without precipitating the peptone, and cooling the residuary solution, and thereby crystallizing out and separating from the peptone the sodium sulphate, substantially as and for the purpose set forth. 4th. The process of manufacturing pepsin, which consists in macerating animals' stomachs in acidulated water, adding to the resultant solution sulphurous acid and clarifying it by precipitation, drawing off the clarified liquid and saturating the same, at a suitable temperature, with sodium sulphate, thereby producing complete, or substantially complete, pre-