

des balanciers H, H₁ montes sur l'axe D, et des leviers K, K₁, tel que ci-dessus décrit et pour les fins indiquées. 2o. Dans un appareil moteur pour les chaloupes, la combinaison des bras A, A₁, discs C, C₁, axe D, balanciers H, H₁, axe F, coussinets E, E₁, G, G₁, et chassis ou cadre M, le tout tel que décrit ou pour les fins indiquées.

No. 31,283. Feed Box. (*Grèche.*)

John W. Jacobs, Fremont, Ohio, U.S., 7th May, 1889; 5 years.

Claim.—As a new article of manufacture, the combination, with a feed box A having a concave bottom C, of a self-adjusting follower or cover B of corresponding concavity, said follower or cover having a central aperture O, and regulating bars d, d, d, and guide rod R, all substantially as and for the purpose hereinbefore set forth.

No. 31,284. Life Saving Garment.

(*Vêtement de sauvetage.*)

George A. Hiler, Grand Haven, Mich., U.S., 7th May, 1889; 5 years.

Claim.—A life-saving garment consisting of the body portion made of rubber or like impervious material, and having legs, arms and neck-band formed integral therewith, and a gathering cord for said neck-band, in combination with the head-part or protector having the transparent plate D, the perforated plate, the apron E located back of said perforated plate having its lower edge only attached to said protector, and the gathering-cord c located at the lower end of said protector, whereby the lower end of the protector is bound to the upper end of the body, substantially as and for the purposes specified.

No. 31,285. Artificial Tooth. (*Dent artificielle.*)

Edward A. Floyd, Paola, Kan., U.S., 7th May, 1889; 5 years.

Claim.—The combination, with the dental plate, of an artificial tooth A having a transverse groove B extending across its inner end, so that the ends or prongs of the grooved portions of the tooth will fit snugly against the opposite sides of the ridge of the plate, the sides of said tooth being open and the flat-headed pin C secured to the tooth in the bottom of the groove, and projecting upward a suitable distance beyond the groove so as to act as a stop for the tooth, and to form a space between the tooth and the model into which the soft hot rubber is swaged, substantially as shown and described.

No. 31,286. Wheel. (*Roue.*)

Alexander Gillies, West Toronto Junction, Ont., 7th May, 1889; 5 years.

Claim.—As a new article of manufacture, a wheel composed of metal tubular frame A and tubular spokes B, the latter being screwed into the hub C, and connected at their opposite ends to the rim A by means of the clips D, substantially as and for the purpose specified.

No. 31,287. Addition Register for Pencils, etc. (*Régistre d'addition pour crayons, etc.*)

Henry C. Rose, Leadville, Col., U.S., 7th May, 1889; 5 years.

Claim.—The combination, with the case A having communicating tube A₁ slotted at its outer end, of the toothed disk B having axial stem with index-hand, the friction spring c arranged between the disk and the side of the case, the spring-seated pencil-holder A₂ with lugs e and spring-pawl E arranged in tube A, and collar D arranged to hold the pencil-holder against the tension of its spring, substantially as shown and described.

No. 31,288. Mouth-Piece for Pipes, etc.

(*Bout de tuyau pour les pipes, etc.*)

Henry C. Rose, Leadville, Col., U.S., 7th May, 1889; 5 years.

Claim.—1st. A mouth-piece having two oppositely-faced cups spaced a short distance from each other to form an annular outlet, as described. 2nd. A mouth-piece attachment consisting of a hollow stem with two hemispherical cups attached thereto and facing each other, and spaced a short distance apart to leave an annular opening for spreading and diffusing the smoke in a sheet, substantially as described.

No. 31,289. Combined Truck and Bag-Holder. (*Camion accroche-sac.*)

John Wilson, Ailsa Craig, Ont., 7th May, 1889; 5 years.

Claim.—1st. In a combined truck and bag-holder, the sliding rack c, the ends of which are received in grooves F of uprights A, and controlled by coil springs G, substantially as shown and specified. 2nd. In combination, with the sliding rack c, the guides I and projecting arms H notched as shown to hold the bags in the process of pulling, substantially as shown and specified. 3rd. In combination with the coil springs G, the rubber or cork cushions K contained in grooves F, substantially as shown and specified.

No. 31,290. Fire-Place, Engine, Stove, etc. (*Foyer, machine, poêle, etc.*)

Johann Bielenberg, Chemnitz, Germany, 7th May, 1889; 5 years.

Claim.—In a stove or furnace, the improved feeding and air supplying arrangements, substantially as described.

No. 31,291. Box for Delivering Matches, Cigarettes and other Articles. (*Boîte pour livrer les allumettes, cigarettes et autres objets.*)

Frederick W. Cannon, London, Eng., 7th May, 1889; 5 years.

Claim.—1st. A box for delivering matches and other articles, comprising a hopper (for containing the articles to be delivered) provided with a pivoted bottom, a shoot extending from the said hopper, a

shelf onto which the articles passing through the said shoot fall, and a pusher for pushing the articles one at a time from the said shelf, the said parts being arranged and operating substantially in the manner and for the purpose described. 2nd. In a box for delivering matches and other articles, a shelf or support onto which the articles to be delivered fall, and from which they are pushed to effect the delivery, substantially as described. 3rd. In a machine for delivering matches, the hopper which is provided with an oscillating bottom d, e, forming a valve between them to relieve the matches which have dropped to the delivery mechanism from the weight of the bulk of the matches in the hopper, substantially as described.

No. 31,292. Machine for Casting Photographic Dry Plates. (*Machine à couler les plaques sèches photographiques.*)

Marcus Kattentidt, Hameln, Germany, 7th May, 1889; 5 years.

Claim.—1st. A casting machine for photographic dry plates, in which there is a double band conveying system, such as the chain bands b, b₂, the rollers h, h, i, i, o, o, and q, q, q, which are actuated from the fly wheel s, provided with crank handle by means of tooth wheels t, t, the pulleys or tooth wheels u, u and w, w, with open and crossed straps or belts, whereby the slantingly pivoted revolving brush c for cleaning the plates before casting or pouring is revolved from the shaft of one of the band rollers h, by means of the pulleys n₁, n₂, and the bevelled wheels r₁, r₁, whilst the plates n, n, are brought along under the revolving brush c to the casting vessel e and over the gelatine removing rollers f, f, and, when cleaned, arrive at the second band conveyor system, where the plates n, n, lying on the double band b₂, b₂ arrive between the heating or drying plate k and the cooling vessel l, and are so completely dried and cooled when they reach the delivery table that an uninterrupted and continuous manufacture is rendered possible, substantially as described. 2nd. In a casting or pouring machine, as firstly claimed, the arrangement of the casting vessel which is pivotally connected to and mounted on the warming vessel which is supplied with hot water, for the purpose of keeping the casting vessel always warm, in such manner that the casting operation may be interrupted by elevating the casting vessel on its pivot whenever desired, substantially as described. 3rd. In a casting vessel, as secondly claimed, the arrangement of the curved hopper x with an air cock z, having suitable passages in order to effect the regulation of the entry of the air into the casting vessel, and upon the gelatine, and consequently to make the gelatine come out slower or faster, as desired, substantially as described. 4th. In a casting vessel as secondly claimed, the application of the plate l, which is adjustable by means of screws and fly nuts i, i, and rendered tight above by means of a packing cord k₁, and of the linen strip g, which, being turned over and secured by the screws and leather under strip g₁ is held in tension by means of the wire p, hooks o, o, and elastic cord q on the side lugs p₁, p₁, in such manner that it presses on the plates n, n conveyed thereunder, and distributes the gelatine evenly thereon, substantially as described. 5th. In a casting machine, operating as herein described, the half round conveyor bands b, b, b₂, b₂, with their peculiar construction of chains m₁, m₁, upon which the flat sides of the bands rest, and to which they are fastened, substantially as described. 6th. In a casting machine operating as herein described, the arrangement of a cooling vessel l, with three or more compartments with overflow and inclined bottom for the gradual cooling of the plates n, n, and for preventing the steam when condensing under the inclined bottom from dropping onto the plates in the form of drops of water and again moistening the same, substantially as described.

No. 31,293. Detachable Fastening for Suspenders. (*Agrafe mobile pour bretelles.*)

Edward F. Paramore, Oconto, Wis., U.S., 7th May, 1889; 5 years.

Claim.—A detachable fastening for suspenders, consisting of hook 1 constructed of a single piece of wire, and formed with the rearwardly-projecting hooks 3, having pointed ends i, and the laterally swinging fastening plate 2 pivoted to the back of hook 1, and having recesses b, with which the points 4 are adapted to engage, substantially as shown and described.

No. 31,294. Means for Closing and Locking or Unlocking Railway Carriage Doors. (*Moyens pour fermer et ouvrir les portes des voitures de chemin de fer.*)

Roderick N. Montgomery, Melbourne, Victoria, 7th May, 1889; 5 years.

Claim.—1st. In improvements in and relating to means for closing and locking or unlocking railway carriage doors, the combination, with a main cord, such as A or its equivalent, running longitudinally from end to end of the train, of a number of branch-connecting cords, such as a, a, substantially as and for the purpose specified and as illustrated in the accompanying drawing. 2nd. The combination, with a cord, such as A or its equivalent, running longitudinally from end to end of the train, of a pair of connecting links or governor, such as E, substantially as and for the purpose specified. 3rd. The combination, with a cord, such as A or its equivalent, running from end to end of a railway train, and connected by branch cords to the doors of said train, of a number of electric bells arranged either to be worked automatically or otherwise, substantially as and for the purpose described.

No. 31,295. Process for Obtaining by the Aid of Light Paintings on Canvas, Wood and other Materials. (*Procédé pour produire, au moyen de la lumière, des peintures sur toile, bois et autres objets.*)

Jean B. G. Bonnard, London, Eng., 7th May, 1889; 5 years.

Claim.—1st. The process of obtaining by the aid of light paintings