

No. 26,016. Extension Step for Passenger Coaches. (*Marchepied Pliant pour Voitures à Passagers.*)

Milton E. Campney and Elbridge G. Rote, Muskegon, Mich., U. S., 16th February, 1887; 5 years.

Claim.—The combination, with a rigid set of steps for a railway passenger-coach, of rods sliding in bearings upon the rear side of the said steps, and having horizontally-bent lower ends, a step secured to the said horizontal ends, and having pins projecting from its ends near the rear edge, a crank-shaft journaled upon the rear side of the rigid steps, and having a double crank at its middle and a crank or handle at its end, a bulged spring upon the side of the steps engaging the said handle, a pitman pivoted to the double crank and with a cross-head at its lower end to the rear edge of the extensible step, and rectangularly bent arms pivoted at their bent ends upon the forward lower corners of the side pieces of the rigid steps, and having the pins of the extensible step sliding in the slots in the outer ends, as and for the purpose shown and set forth.

No. 26,017. Draft Reducer for Vehicles.

(*Réducteur de traction pour voitures.*)

Charles W. Pearsall and William Burnskirk, Syracuse, N. Y., U. S., 16th February, 1887; 5 years.

Claim.—1st. In combination with the frame of a vehicle, a main wheel having bearings to admit vertical play in said frame, and a draft wheel resting on the tread of said main wheel, and having its bearings under the frame to support the load, substantially as described. 2nd. The combination, with the frames of a vehicle, of a main wheel having bearings to permit vertical movement in said frame, a draft wheel resting on the tread of the main wheel and supporting the frame on its bearings, and relieving springs interposed between the bearings and the frame, substantially as described. 3rd. The combination, with the frame A having the box frame 4, of the main wheels 8 having axle bearings 5 guided to vertical movement in said box frame, draft wheels 11 resting on the tread of the main wheels perpendicularly above their centres, and having their bearings in the frame at each side of a perpendicular extension of the main wheel, and spring 12 above the movable bearings of the wheels, all substantially as described.

No. 26,018. Automatic Gas Extinguisher.

(*Eteignoir automatique du gaz.*)

Joseph Héroux, Yamachiche, and George Davelmy, Montreal, Que., 16th February, 1887; 5 years.

Claim.—The frame I secured to an ordinary gas bracket A, and on which are fixed the expansion metallic rods D, E, F, arranged on levers H and G directly above the gas burners, so as to be heated by the gas flame and thereby expanded to work the bell crank I and vertical rod O, the whole combined with bracket A, stoppers L and Y, spring M, and arm N, as above described and for the purposes set forth.

No. 26,019. Machine for Bottling Aerated Liquids. (*Machine à mettre en bouteilles les eaux gazeuses.*)

Thomas Ferguson, Albert Park, and Evan Rowlands, Melbourne, Victoria, Australia, 16th February, 1887; 5 years.

Claim.—1st. In machines for bottling aerated liquids, a bottle-supporting means adapted to retain the bottle at such an angle that when the said bottle is sufficiently full the liquid will overflow through a passage in the bottle charging cone, substantially as and for the purpose described. 2nd. A machine for bottling aerated liquids, embodying in its construction a holder for bringing the bottle into the filling position, a filling device, a corking device, and a discharging device, the said devices being operated by the successive partial rotation of a handle, substantially as herein described and explained. 3rd. The construction of the cone, with an overflow passage such as B⁵⁰, substantially as and for the purposes herein described and explained. 4th. In machines for bottling aerated liquids, a charging cone B, recessed buffer C, bell mouth B¹, washer B₂, in combination with a cork trough B₃, ram D, syrup supply passage B₄, check valve B₇, aerated water supply passage B₆, stud E₁, and ratchet disc E₂, substantially as and for the purpose described. 5th. In machines for bottling aerated liquids, the combination of a charging cone B, passage B₆ provided with a check valve, a relief passage B₃, regulating thumb valve B₅, vent B₁₀, regulating valve B₁₁, and foot bracket B₁₂, substantially as and for the purpose described. 6th. In machines for bottling aerated liquids, the combination, with the shaft G, of the buffer C, recessed piece C₁, stem C₂, cross-head C₃, guide bracket C₄, rod C₅, guide bracket C₆, friction roller C₇, cam C₈, friction roller C₉, and weighted lever C₁₀, substantially as and for the purposes set forth. 7th. In machines for bottling aerated liquids, the combination, with the shaft G and the cork ram D, the guide bracket D₁, sliding block D₂, bracket D₃, rod D₄, crank pin D₅, and ratchet disc E₁, substantially as and for the purpose described. 8th. In a machine for bottling aerated liquids, the combination, with a syrup pump J and shaft G, of the pump piston actuated by a lever J₁, a friction roller J₂, cam J₄, valve box J₅, spring J₆, and bracket J₇, arranged and adapted to operate substantially as described. 9th. The combination, with a machine for bottling aerated liquids, constructed and operating substantially as described, of a cork-feeding device, arranged and operating substantially as described.

No. 26,020. Telephone Transmitter.

(*Transmetteur Téléphonique.*)

The Bell Telephone Company, Montreal, Que., (assignee of Emile Berliner, Washington, D. C., U. S., 16th February, 1887; 5 years.

Claim.—1st. The combination, in a telephonic transmitter, of a

diaphragm forming one electrode, a mass of finely divided conductor material resting thereon, and one or more carbon pendants projecting into the said conducting material forming the complementary electrode. 2nd. The combination, in a telephone transmitter, of a carbon diaphragm forming one electrode, a mass of finely-divided carbon particles resting thereon, and one or more carbon pendants projecting into the carbon particles forming the complementary electrode. 3rd. The combination, in a telephonic transmitter, of a vibratory diaphragm having a series of perforations near its centre forming one electrode, a mass of finely-divided conducting material resting thereon and a complementary electrode in electrical contact therewith. 4th. In a telephonic transmitter, the combination of a diaphragm, a cell containing finely divided conducting material having a ring of flexible insulating material fixed thereto upon the edge adjacent to the diaphragm with which it makes contact serving to confine the divided conducting material, and forming a damper for the diaphragm. 5th. The combination, in a telephonic transmitter, of a vibrating diaphragm, a cell confining a mass of finely divided conducting material, and a damper for the diaphragm consisting of a projection of flexible or elastic material fixed to the said cell, and making contact with the diaphragm near its centre. 6th. In a telephonic transmitter, the combination of a diaphragm, a cell containing finely divided conducting material having a ring of flexible insulating material fixed thereto upon the edge adjacent to the diaphragm and in contact therewith, and a projection of flexible or elastic material fixed to the cell and in contact with the diaphragm near its centre. 7th. The combination, with a telephone, of a tube or mouth-piece, the interior wall of which is of a soft or yielding nature. 8th. The combination, with a telephone, of a tube or mouth-piece, of soft rubber in the form of a cone the axis of which is a curved line. 9th. In a telephonic transmitter, a diaphragm having a series of perforations at or near its centre, a mass of finely divided conducting material resting thereon, and a confining cell arranged substantially as described. 10th. The combination, in a telephonic transmitter, of a diaphragm forming one electrode, a mass of finely divided conducting material forming the current varying medium, and one or more carbon projections more or less immersed in the said conducting material forming the complementary electrode.

No. 26,021. Ball Joint for Connecting a Brush to its Handle, etc. (*Joint sphérique pour manches de brosses, etc.*)

George J. Cline and William B. Lehman, Goshen, Ind., U. S., 16th February, 1887; 5 years.

Claim.—1st. A ball joint consisting of the divided shank 5, 5, having spherical recesses near one end, and conjointly a tapering screw at the other end entering a screw-threaded socket handle 9 or member to be connected, a ball 3 seated in the spherical recesses and attached by suitable means to a brush body 1 or other member to be connected, whereby the divided shank will have an equatorial and an axial movement about the ball, as set forth.

No. 26,022. Method of and Means for Justifying Matrices, Types and Dies when assembled or composed in Lines. (*Mode et moyens de justification des matrices, types et étampes assemblés ou composés en lignes.*)

Ottmar Mergenthaler, Baltimore, Ind., U. S., 17th February, 1887; 5 years.

Claim.—1st. The method of justification, substantially as herein described, for female dies or matrices, consisting in introducing and operating simultaneously compound wedges adapted to close the face of the co-operating mould. 2nd. The justifying device consisting of two oppositely-tapered portions, one arranged to slide upon the other, and one provided with shoulders or retaining devices. 3rd. In a machine for casting type bars, the combination of the mould, means for supplying the mould with molten metal, a series of matrices, clamps to confine the matrices and spacing devices, substantially as herein described, each consisting of two tapered portions arranged to slide one upon the other, and adapted to close the mould tightly between the matrices. 4th. In combination with a line of matrices or dies, a series of expansible spacing devices, such as shown, and mechanism for operating said devices automatically to cause their expansion. 5th. The combination of a series of matrices or types, clamps to determine the expansion of the line of matrices, the two part expansible spacing devices, substantially as herein described, and means for operating said devices simultaneously. 6th. In combination with a series of matrices, and a mould to co-operate therewith, a spacing device, substantially as described, adapted to fill the space between two matrices, and also close the mould at that point to prevent the escape of the metal between the matrices. 7th. In a machine for casting type bars, etc., the combination of matrices or type expansible spacing devices, substantially as shown, and rails or guides adapted to sustain both the matrices and spacing devices, and permit the expansion of the latter in a manner substantially such as described and shown. 8th. In combination with a series of matrices or female type, and a series of compound spaces, each having one member or wedge longer than the matrices sustaining rails, adapted and arranged to permit the adjustment of said elongated member endwise between the matrices.

No. 26,023. Artificial Ear Drum.

(*Tympan d'oreille artificiel.*)

Henry A. Wales, Bridgeport, Conn., U. S., 17th February, 1887; 5 years.

Claim.—An artificial ear drum consisting solely of a thin flexible disk of rubber, provided with a device made integral therewith for example a flexible loop, whereby it may be inserted or removed.