

filaments for incandescent electric lighting, the same consisting in impregnating and depositing on a vegetable thread aluminum in solution, substantially as described. 3rd. The method of producing filaments for incandescent electric lighting, the same consisting in impregnating and depositing on a vegetable thread aluminum in solution, then carbonizing said thread and finally submitting the carbonized thread, in vacuo, to the passage therethrough of an electric current of high tension, and to the vapours arising from aluminum in solution, substantially as described.

No. 40,542. Lawn Sprinkler.

(*Machine à arroser le gazon.*)

Daniel Cook Wilges, Los Angeles, California, U.S.A., 3rd October, 1892; 6 years.

Claim.—1st. A lawn sprinkler provided with a circular vortex chamber having a centrally arranged discharge orifice in its top, two induct passages, each arranged to communicate with a water supply and to discharge a stream of water into the vortex chamber and on opposite sides of the centre thereof in reverse directions, tangential to the periphery of the vortex chamber, and suitable means for attachment to the water supply. 2nd. A sprinkler provided with a circular vortex chamber and a centrally arranged discharge orifice in its top, a water supply chamber beneath such vortex chamber and arranged for attachment to the supply pipe, two induct passages leading from the supply chamber to the vortex chamber and arranged in reverse directions upon opposite sides of such chamber tangential to its periphery. 3rd. A lawn sprinkler provided with a circular vortex chamber and a centrally arranged discharge orifice in its top, a water supply chamber beneath such vortex chamber and arranged for attachment to the supply pipe, two induct passages leading from the supply chamber to the vortex chamber and arranged to discharge into such vortex chamber in reverse directions and upon opposite sides of such chamber tangential to its periphery, and the jet passage arranged in line with the axis of the vortex chamber and leading from the supply chamber to the vortex chamber.

No. 40,543. Cultivator. (*Cultivateur.*)

Clarence B. Bennet, Lansing, Michigan, U.S.A., 3rd October, 1892; 6 years.

Claim.—The combination, with a cultivator having a central bar and two side bars hinged to it, of a toothed rack fast to the central bar, a saddle sliding on said bar, a spring lever hinged to said rack and linked to the said saddle, and a system of three links, one of which is hinged to said rack, one of which is hinged to said saddle, and one of which is hinged to the side bar of the cultivator, and all meeting at a common point, substantially as and for the purpose described.

No. 40,544. Musical Toy. (*Jouet à musique.*)

William Alfred Gay, Corry, Pennsylvania, U.S.A., 3rd October, 1892; 6 years.

Claim.—1st. In a musical toy, a series of vibratory rods cast in a metal base from which they project, and means for causing the rods to vibrate, substantially as and for the purposes described. 2nd. In a musical toy, the combination of a series of vibratory rods secured to a metal ring and projecting therefrom transversely, and means for striking said rods and causing the same to vibrate, substantially as and for the purposes described. 3rd. In a musical toy, the combination of a metal ring, vibrating rods projecting transversely, a central shaft, and a clapper hung on the shaft, substantially as and for the purposes described. 4th. In a musical toy, the combination of a rotary barrel, a ring or base fixed in the barrel and having transversely projecting vibratory rods, and means for striking and vibrating said rods, substantially as and for the purposes described. 5th. In a musical toy, the combination of a rotary barrel, a ring or base fixed in the barrel and having a series of vibratory rods projecting transversely therefrom, and a clapper suspended from a central shaft in the barrel, substantially as and for the purposes described. 6th. In a musical toy, the combination of a series of vibratory rods secured to a base from which they project transversely, a handle or support to which the base is fixed, a casing, and a striker set within the rods and adapted to strike the same when the toy is shaken or rotated, substantially as and for the purposes described.

No. 40,545. Machine for Advertising.

(*Appareil pour annoncer.*)

Edward Harmer, Ottawa, Ontario, Canada, 3rd October, 1892; 6 years.

Claim.—1st. An advertising device consisting of a moving web K, having the catches k, acted upon by the lip l, of the weight I, suspending ends M, wound upon the pulleys D, of the roller C, when rotated and in falling when released, moving the web a positive distance to display an advertisement before the aperture B, of the frame A, substantially as set forth. 2nd. In an advertising device, the roller C, having the mortise a, and tension e, the cords M, loose put legs H, and the weight I, and the web K, all combined

and arranged, substantially as set forth. 3rd. In an advertising device, the web K, having catches k, weight I, and rollers J, L, with recesses m, n, and roller C, combined to form an operating mechanism.

No. 40,546. Tufting Device for Knitting Machines.

(*Appareil à moutonner pour machines à tricoter.*)

Joseph D. Partello, Rochester, and John F. Jackson, Detroit, Michigan, both in the U.S.A., 3rd October, 1892; 6 years.

Claim.—1st. The combination, with the needle cylinder, and cam cylinder, and the knitting needles of a knitting machine, of an upper needle cylinder and cam cylinder and upper needle cams in the upper cam cylinder, for imparting vertical movement to the upper needles, and a cam for imparting a swinging movement to the said upper needles, substantially as described. 2nd. The shaft H, held by the arm K, in combination, with the cylinder L, needles N, cam cylinder G, provided with cam plate R, having relieving portions r¹, spider J, column F, and cylinder G, of the knitting machine, substantially as described. 3rd. The combination, with the cylinder L, and needle N held thereby, of the cam cylinder G, and plate R, provided with relieving portion r¹, for forcing the said needles inward, substantially as described. 4th. The needles N, formed with the hook b, knife b¹, and projections b², b³, substantially as and for the purposes set forth. 5th. The upper cylinders G, L, and upper needles N, and the lower needle and cam cylinders and knitting needles, in combination, with the presser foot X, and operating screw, substantially as and for the purposes set forth. 6th. The combination, with the upper cylinders G, L, and the upper needles N, of the springs f arranged to press against the needles, substantially as described. 7th. The combination, with the upper cylinders G, L, and needles N, of the springs f arranged to press against the needles, and the cam R, provided with relieving portion r¹, arranged to move the said needles inward, substantially as described. 8th. The ring V¹ slotted at V², and having the guide V, in combination with the gear or ring D, having stud W¹ projecting through the slot V², and provided with the guide W, substantially as described.

No. 40,547. Apparatus for Destroying Insects.

(*Appareil pour détruire les insectes.*)

Henry, Count of Puckler, Ober-Weistritz, Silesia, Germany, 3rd October, 1892; 6 years.

Claim. 1st. A device for destroying insects, consisting of a metallic net adapted to be isolated from the ground, and an electric battery for heating the same to a glowing condition, substantially as set forth. 2nd. A device for destroying insects, consisting of a frame, metallic wires crossing, but at a distance from each other, electric wires connected with the frame and with a battery and means for supporting the device in an isolated position above the ground, substantially as set forth.

No. 40,548. Step Ladder. (*Echelle de vitrier.*)

Gavin Struthers, Bailies Causeway, Hamilton, assignee of Andrew Barr, Bothwell, Lanark, both in Scotland, 3rd October, 1892; 6 years.

Claim.—1st. A convertible step-ladder consisting of two parts 1, 2 which are hinged together at their upper ends, the part 1 having recesses 9, 10 at its upper end whilst the part 2 has a rung 13 capable of movement in slots therein, the said rung being inserted in the recesses 9, 10 when the step-ladder is extended, substantially as hereinbefore described with reference to the drawings annexed. 2nd. The combination with the hinged parts 1, 2 of the step-ladder of the platform 19 which is hinged to the part 1 and has a recess on its under side which grips on one of the rungs of the part 2, substantially as hereinbefore set forth. 3rd. The combination with the extendible part of the convertible step-ladder, of a movable rung formed of an iron core 14 and an inclosing wood cylinder 13 substantially as hereinbefore set forth.

No. 40,549. Process of and Apparatus for Degreasing Leather. (*Procédé et appareil pour dégraisser le cuir.*)

Frederick Nicholson Turney, Nottingham, County of Nottingham, England, 3rd October, 1892, 6 years.

Claim.—1st. The process of degreasing leather herein described which consists in suspending the leather within a closed tank, drenching it with a solvent, passing a current comprising heated air and a vapor of the solvent over the leather, condensing the vapor of the solvent out of the current of heated air and vapor, and passing air practically from the vapor, over the leather, substantially as described. 2nd. The process of degreasing leather herein described which consists in suspending the leather within a closed tank, drenching it with a solvent, passing a current comprising heated air and a vapor of the solvent over the leather, and recovering the solvent for re-use by condensing the vapor of the solvent out of the current of heated air and vapor, substantially as described. 3rd. In an apparatus for degreasing leather the combination with a storing tank for the solvent and a degreasing tank of means for suspending