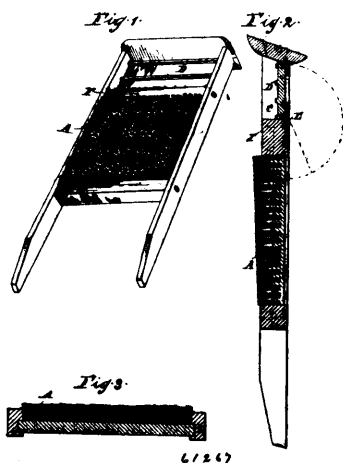


being extended in thickness and grooved concentrically of the vertical perforation therethrough, a boss formed upon the lower side of said swinging plate, said boss and the face of the base plate being correspondingly grooved to form a runway concentric of the said vertical perforation, for a series of balls, a circular cap of circumference equal to the circumference of the upper end of the hub, and grooved correspondingly in order to form with the groove in the upper end of said hub, a runway for a series of balls, a headed screw-threaded bolt adapted to take downwardly through a perforation in said cap and into the vertical screw threaded perforation in the trunion, a bracket formed upon the opposite end of said swinging plate and horizontally perforated in line with said trolley pole, a T-shaped section having its vertical arm screw threaded and adapted to take through said perforations in said brackets, a pair of jam nuts taking upon said screw-threaded arm and located one at each side of said bracket, the cross arms of said T-section being extended in a horizontal plane and having their ends hooked, a curved cross piece formed upon said trolley-pole section and having its ends hooked, and a pair of retractile spiral springs each connected at one end to one of the hooks of the T-shaped section and at its other end to one of the hooks of the trolley-pole section, and a buffer consisting of a hollow cylindrical section, having one end closed, connected rigidly to said swinging plate adjacent to said trolley-pole section, a second hollow cylindrical section, having one end closed, adapted to slide within said first mentioned cylindrical section, a spiral spring carried within said inner cylindrical section and adapted to bear between the inner side of the closed ends of said cylindrical sections, and a bolt connected to the closed end of the inner cylindrical section and extending through a perforation in the closed end of the outer cylindrical section and having a nut screwed thereon, all substantially as and for the purpose set forth.

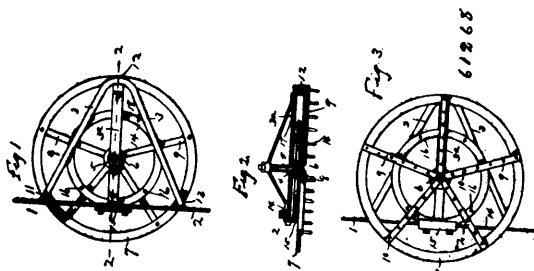
No. 61,267. Washing Board. (Planche à laver.)



Herbert Thomas Hamilton, 29 Chatham street, Prahran near Melbourne, Victoria, Australia, 26th September, 1898; 6 years. (Filed 2nd September, 1898.)

Claim.—The herein described washing board in which the rubber or washing surface is composed of brushware, substantially as and for the purposes herein described and explained.

No. 61,268. Harrow. (Herse.)

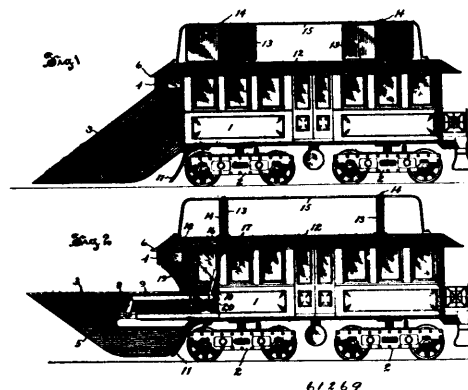


Joseph Carol Sturges, Aurora, Illinois, U.S.A., 26th September, 1898; 6 years. (Filed 31st August, 1898.)

Claim.—In a harrow the combination with a triangular frame provided with a central frame for a circular tooth frame provided

with a hub and with radiating tooth-carrying arms and a concentric circular track provided with a series of apertures, a stud carried by the rotary tooth-frame and extending through the central frame-bar, and antifriction-rollers intermediate of the relatively-movable parts and means for securing them in their adjustable position, substantially as specified.

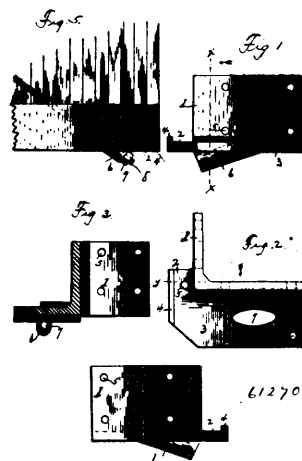
No. 61,269. Air Resistance Device for Railway Vehicles. (Appareil de résistance de l'air pour voitures de chemin de fer.)



George Joseph Capewell, Hartford, Connecticut, U.S.A., 26th September, 1893; 6 years. (Filed 6th September, 1898.)

Claim.—1st. A railway vehicle having a resistance part movably connected with and arranged to deflect air from its end when in motion, and mechanism for moving the resistance part from a position in which it deflects air from the end of the vehicle to a position in which the end of the vehicle is exposed to the air when moving, substantially as specified. 2nd. A railway vehicle having a deflector for air movably connected with its front end, mechanism for moving the deflector from a position which will minimize the air resistance to a position which will increase the air resistance to the vehicle, and means for moving the wings from positions of little resistance to positions of great resistance to the air, substantially as specified. 3rd. A railway vehicle having resistance wings pivotally supported by its top, and mechanisms for oscillating the resistance wings from positions of no resistance to positions of great resistance, substantially as specified. 4th. A railway vehicle having a wedge-shaped deflector with horizontally movable walls connected with its front end, and mechanisms for opening the front edges of the deflector walls from and closing them against each other, substantially as specified. 5th. A railway vehicle having a vertically arranged wedge-shaped deflector with movable side walls connected with its front end, mechanisms for moving the side walls, wings horizontally mounted upon the roof of the vehicle, and connections between the wings and the walls of the deflector whereby they are moved simultaneously, substantially as specified.

No. 61,270. Truss Rod and Corner Brace for Cars. (Tirant et ferrement d'encoignure pour chars.)



Frederick Heidelberg, Marshall, Texas, U.S.A., 26th September 1898; 6 years. (Filed 3rd September, 1898.)

Claim.—1st. In a device of the character described, a bracket, side and end flange formed therewith, a lip formed on the end of