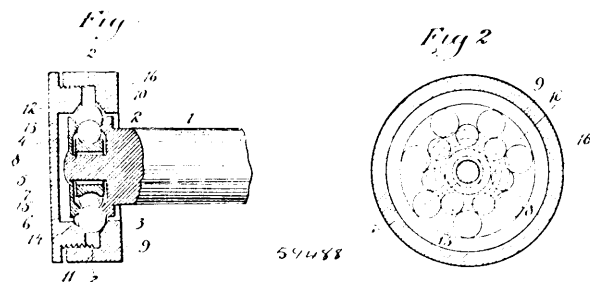


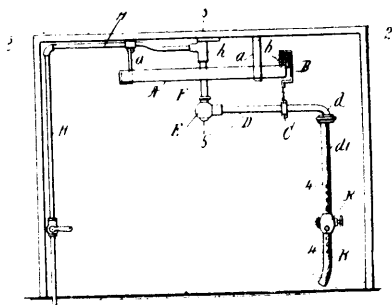
the first named anti-friction devices, and a casing bearing on the last named anti-friction devices, substantially as specified. 3rd. An



anti-friction bearing comprising a shaft, an annulus surrounding a portion of said shaft, but not engaging therewith, said annulus being formed of one piece or pieces adjustably threaded together longitudinally of the shaft which it surrounds, balls engaging on said annulus, an outer series of balls engaging with the inner balls, a ring surrounding the shaft and having a bearing for the outer balls, and a cap connected to said ring and also having a bearing for the outer balls, substantially as specified. 4th. An anti-friction bearing comprising a shaft, an outwardly extending flange on said shaft having exterior and interior bearing surfaces for balls, a disc supported on the shaft, and having bearing surfaces corresponding to those of the flange for said balls, an annulus surrounding the shaft between the flange and disc, balls engaging with and supported by said annulus and the interior bearing surfaces of the flange and disc, outer balls engaging with the first named balls and with the exterior bearing surfaces of the flange and disc, and a casing engaging with said outer balls, substantially as specified. 5th. An anti-friction bearing comprising a shaft or axle, an outwardly extending flange on said shaft or axle, a disc on the portion of the shaft or axle, there being a space between the flange and disc, a grooved annulus in said space but free from the shaft or axle, balls engaging in the grooves of the annulus, the balls being within the space mentioned, an outer series of balls engaging with the first named series and with the peripheries of the flange and disc, a ring surrounding the shaft or axle, but free therefrom, the said ring having a raceway or bearing surface for the outer balls, and a cap adjustable relatively to the ring, said cap also having a raceway or bearing for the outer balls, substantially as specified.

No. 59,489. Carriage Washer.

(Appareil à laver les voitures.)



59489

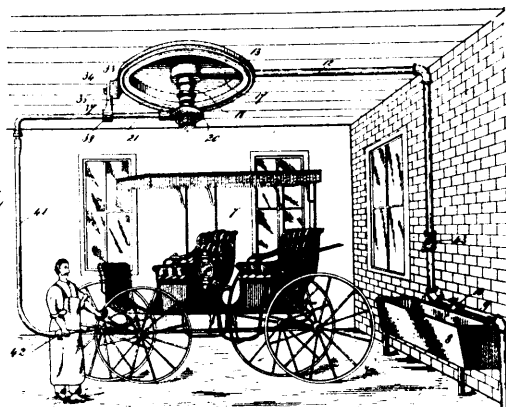
Edwin Ferris, Mont Clair, New Jersey, assignee of Henry Nicholsburg, New York, all in the U.S.A., 2nd April, 1898; 6 years. (Filed 5th March, 1898.)

Claim.—1st. In a water supply apparatus, the combination with a ring suitably suspended, of a carriage adapted to travel thereon, a water supply pipe suspended through said ring, a revolvable hollow head mounted on the said pipe in communication therewith, and a pipe connected with said head, and supported by said carriage, and a flexible tube connected with said last named pipe, and provided with a water supply regulator or cock, consisting of a casing having an enlarged central portion provided with a partition, having a central port or opening, a spring operated valve adapted to close said opening, and a plunger extending through the side of the casing adapted to operate said valve, said casing being also provided with a spring operated plunger at right angles to the valve plunger by which the latter is held in the position in which the valve is open, substantially as shown and described. 2nd. In a water supply apparatus, the combination therewith, of a water supply regulator or cock, comprising a casing having a partition therein, part of which is arranged longitudinally thereof, and provided with a central opening, a spring operated valve on one side of said opening, a

plunger connected therewith or adapted to operate thereon, on the opposite side and extending through the casing, and another spring operated plunger extending through said casing, at right angles to the valve plunger, and adapted to hold the valve open, said valve plunger being provided with an annular groove or recess, and the plunger at right angles thereto with a shank adapted to enter the same, substantially as shown and described.

No. 59,490. Carriage Washer.

(Appareil à laver les voitures.)



59490

Edwin Ferris, Mont Clair, New Jersey, assignee of Henry Nicholsburg, New York, all in the U.S.A., 2nd April, 1898; 6 years. (Filed 5th March, 1898.)

Claim.—1st. In an apparatus for the purpose herein described, a circular casing which is adapted to be secured to a ceiling or other support, said casing being provided at the lower edge thereof with an annular outwardly directed flange, a revolvable ring mounted on said flange, a pipe suspended about the centre of said casing, a water-pipe which passes into said casing and is in communication with said suspended pipe, a casing mounted on the lower end of said suspended pipe and in communication therewith, and adapted to turn thereon, and a pipe connected with said casing and with a hanger suspended from said revolvable ring, substantially as shown and described. 2nd. In an apparatus for the purpose herein described, a circular casing which is adapted to be secured to a ceiling or other support, said casing being provided at the lower edge thereof with an annular outwardly directed flange, a revolvable ring mounted on said flange, a pipe suspended from the centre of said casing, a water-pipe which passes into said casing and is in communication with said suspended pipe, a casing mounted on the lower end of said suspended pipe and in communication therewith, and adapted to turn thereon, a pipe connected with said casing and with a hanger suspended from said revolvable ring, said revolvable ring being held in position by a bearing ring which is placed thereon, and ball-bearings placed between said revolvable ring and said bearing, and the flange on which said revolvable ring is placed, substantially as shown and described. 3rd. In an apparatus for the purpose herein described, a cylindrical casing as 13, which is adapted to be secured to a ceiling or other support, said casing being provided at its lower edge with an outwardly directed annular flange, a pipe suspended from the centre of said casing, a water-pipe which passes into said casing and which is in communication with said suspended pipe, a revolvable ring mounted on said annular flange, a casing mounted on the lower end of said suspended pipe and in communication therewith, a pipe in communication with said last named casing and passing through a support connected with said revolvable ring, and a flexible tube which is adapted to be connected with said last named pipe, substantially as shown and described.

No. 59,491. Velocipede. (Vélocipède.)

Isaac P. Patton and James Arthur Seybold, both of Ottawa, Ontario, Canada, 2nd April, 1898; 6 years. (Filed 26th February, 1898.)

Claim.—1st. In a velocipede gear, the combination with a driving shaft or axle of the rear fork and forked frame bars formed into hubs adapted to carry bearings for the axle, bearings formed with said axle and in said hubs, a sprocket wheel rigidly mounted upon said axles, a circular disc or eccentric secured rigidly and adjustably to the outside of each hub eccentrically to the axle so that its longest axis is forward of said axle and approximately at a right angle to the downward movement of the treadle action of the foot of the rider, an eccentric strap adapted to rotate upon said disc or eccentric and provided with an arm adapted to carry a pedal, a crank mounted and secured upon each outer end of the axle and a link connecting said crank arm with the pedal arm, substantially as