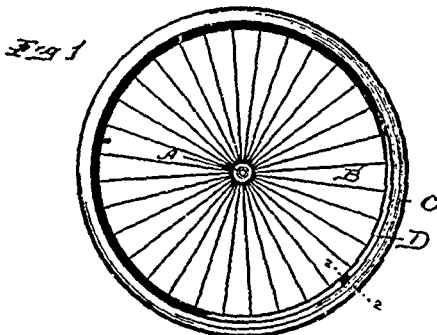


working that the ashes fall through openings in the upper grate on to the lower grate from which they are then removed by means of scrapers, so as to fall into the ash chamber, as set forth. 2nd. The combination substantially as hereinbefore described of an upper and a lower rotatable grate with openings therein through which ashes may fall, and stationary scrapers between said grates which cause the ashes on the lower grate to fall into the ash chamber, as set forth. 3rd. The combination substantially as hereinbefore described of an upper and lower rotatable grate rigidly connected with each other and provided with one or more large openings in each through which ashes may fall, the openings in the lower grate being located, relatively, to those in the upper grate in alternate quadrants, and stationary scrapers between said grates to cause the ashes on the lower grate to fall into the ash chamber, as set forth. 4th. The combination substantially as hereinbefore described of an upper and a lower rotatable grate rigidly connected with each other and provided with one or more large openings through which ashes may fall, the openings in the lower grate being located relatively to those in the upper grate in alternate quadrants, a scraper fixed on the upper grate near the periphery thereof, and in front of the opening or openings in the upper grate, and stationary scrapers between said grates to cause the ashes on the lower grate to fall into the ash chamber, as set forth. 5th. The combination substantially as hereinbefore described of an upper and a lower grate and scrapers so arranged and working that the ashes fall through openings in the upper grate on to the lower grate from which they are removed by means of scrapers so as to fall into the ash chamber, as set forth, and of a screw in the ash chamber for removing the ashes therefrom as explained. 6th. The combination substantially as hereinbefore described of an upper and a lower rotatable grate and scrapers so arranged and working that the ashes fall through openings in the upper grate on to the lower grate from which they are removed by means of scrapers so as to fall into the ash chamber, of a screw in the ash chamber for removing the ashes, and a scraper attached to the lower rotatable grate to feed ashes to the screw, as set forth. 7th. The combination substantially as hereinbefore described of an automatic feeding fuel reservoir, of an upper and a lower grate and scrapers so arranged and working that the ashes fall through openings in the upper grate on to the lower grate from which they are then removed by means of scrapers, as set forth. 8th. The combination substantially as hereinbefore described of an upper and lower grate and scrapers so arranged and working that the ashes fall through openings in the upper grate on to the lower grate from which they are then removed by means of scrapers, and of a suitably arranged and centrally located air pipe through which air may be forced to the bottom of the fuel and a cone placed above the centre of the upper grate, as set forth. 9th. In a gas generating furnace or gas producer of the kind hereinbefore referred to, a water jacket constructed substantially as hereinbefore described so that the water is caused to circulate and become heated therein, as set forth. 10th. In a gas generating furnace or gas producer of the kind hereinbefore referred to, a water jacket in combination with a feed water tank for purifying and heating the water and provided with inlet and outlet pipes, as set forth. 11th. In a gas generating furnace or gas producer, a water jacket surrounding the furnace in combination with concentric cylindrical diaphragm, as set forth. 12th. In a gas generating furnace or gas producer of the kind hereinbefore referred to, an automatic feeding fuel reservoir made in telescopic sections so that the lower section can be raised and lowered, as set forth. 13th. The combination substantially as hereinbefore described, of an upper rotatable grate with one or more large openings formed therein through which ashes may fall, of curved scrapers shaped as shown and so connected with the lower surface of the upper grate as to partake of its motion, and of a lower stationary grate from which the ashes are removed by means of said curved scrapers into the ash chamber, as set forth.

No. 45,910. Wooden Rim Bicycle Wheel. (*Jante de bois pour roues de bicyclette.*)

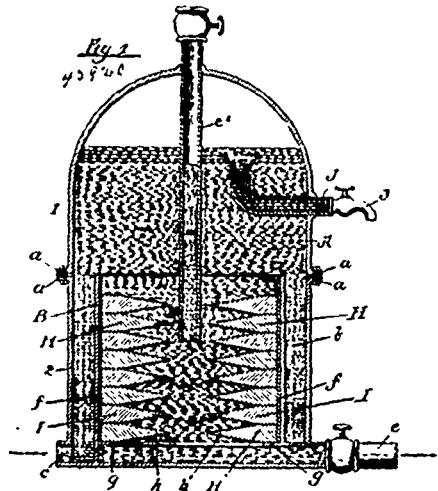


The Indiana Novelty Manufacturing Company, assignee of George W. Marble, all of Plymouth, Indiana, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. A bicycle wheel having a wooden rim provided at its meeting ends with interlocking tongues and grooves extending lon-

gitudinally or in the direction of the rim, the tongued and grooved meeting ends of the rim abutting together, whereby the full strength of the circular arch is preserved in the joint, and the tension or strain of the wheel upon the arch prevented from tending to weaken or loosen the joint, substantially as specified. 2nd. A bicycle wheel having a wooden rim provided at its meeting ends with a series of parallel sided, square ended interlocking tongues and grooves extending longitudinally or in the direction of the rim, the meeting ends of the rim abutting square together, whereby the strength and rigidity of the circular arch maintained at the joint thus formed is preserved and the tension or strain of the wheel upon the arch is prevented from tending to weaken or loosen the joint, substantially as specified.

No. 45,920. Feed Water Purifier. (*Épurateur d'eau d'alimentation.*)



John W. Hill, Chicago, Illinois, assignee of Charles E. Whitmore, Boston, Massachusetts, assignee of Samuel G. Cabell, Washington, Columbia, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The combination of a voltaic pile arranged in a gland in the feed-water passage to a boiler, and having a passage through it and means arranged in said gland for collecting and separating oil and grease contained in said feed-water, substantially as described. 2nd. The combination of a voltaic pile having a longitudinal passage through it, means for passing feed water through the elements of said pile to a boiler and means for collecting oil and grease, the same comprising a water and collecting chamber above said pile, and a blow off pipe leading from about the water level of said chamber through the wall of the latter, substantially as described. 3rd. In a feed-water purifier and oil extractor, the combination of a main vessel, an inlet port near the bottom thereof, an outlet port leading from near the bottom, an annular partition extending from the bottom, a galvanic pile having a passage through it within the partition, a dome or chamber above the main vessel and a blow-off leading from the dome. 4th. In a feed-water purifier, the combination of a vessel for receiving the feed-water, a galvanic battery cup located within said vessel with a water space between the two, a series of galvanic plates in said vessel in contact with each other, and having a water passage through them, an inlet port opening into the space between the vessel and cup, and an outlet port from the battery cup through the outer vessel, the said inlet and outlet ports communicating with each other through the battery cup and plates, substantially as described. 5th. In a feed-water purifier, the combination of a shell or gland, and a galvanic pile arranged within said gland consisting of layers of positive and negative elements, each element comprising a ring portion and teeth or fingers projecting inwardly from said portion, the ring portions of said elements being in direct contact with each other, substantially as described. 6th. In a feed-water purifier, the combination of a shell or gland, and a galvanic pile located within said gland, consisting of layers of positive and negative elements, so constructed and arranged that each layer shall be at some point in electrical connection with the next succeeding layer or layers, and the water passing through the gland shall come in contact alternately with the positive and negative elements, substantially as described.

No. 45,921. Driving and Steering Actions for Cycles. (*Mécanisme d'impulsion et appareil de manœuvre de cycles*)

William H. Ford and John Mooney, both of Shelton, Connecticut, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The combination with a shaft, having driving wheels fixed thereto and provided with clutch members, and a