No. 18,891. Felly and Tire for Wheels.

(Jante et Bandage de Roue.)

Patrick W. McGuire, Lucon, Ill., U. S., 15th March, 1884; 5 years.

Claim.—The combination, with the felly A, having the curved rib B, of the counter-sunken portion G, adapted to form a continuation of the rib, as described, and the tire D provided with a groove adapted to receive the rib B of the felly.

No. 18,892. Art of Filtration. (Mode de Filtration.)

No. 18,892. Art of Filtration.

(Mode de Filtration.)

John W. Hyatt, Newark, N. J., U. S., 15th March, 1884; 5 years.

Claim.—1st. In the art of filtration, the method hereinbefore described, of coagulating and arresting the impurities, and of preventing any of the coagulating agents in solution passing off with the filtered water, which method consists, first, in introducing into the water prior to, or at its entrance into the apparatus, a substance which will produce oagulation, then a substance which will operate to precipitate the excess of the coagulant and prevent any of the same in solution from passing off with the water, and finally allowing the water to pass through a bed of filtering material. 2nd. In the art of filtration, the method hereinbefore described, of coagulating and arresting the inpurities, and of preventing any of the coagulating material from passing off in solution with the filtered water, which method consists in introducing into and lime into the apparatus and then allowing the water to pass through a bed of filtering material. 3rd. In the art of filtration, the method hereinbefore described, of coagulating and arresting the impurities, and of preventing any of the coagulating anterial from passing off in solution with the filtering water, which method consists in introducing an alkali, an alkaline earth, or a base into the water, and passing the same through a filter bed composed of iron in commitued form, or iron and sand, or equivalent material. 4th. Iron and lime as a coagulant and precipitant for use in the art of filtration, metallic iron and lime in the form of a paste. 6th. A filter bed consisting of metallic iron and sand, or analogous material, thoroughly intermingled, substantially as and for the purposes set forth. 7th. In cleaning granular filter beds, the method of removing the impurities therefrom, by transferring the filtering substance under water from one compartment to another, in such manner that the particles of which the bed is on the provided with the interior

No. 18,893. Stop-Valve. (Soupape d'arrêt.)

Charles F. Murdock, Detroit, Mich., U.S., 15th March, 1884; 5 years.

Charles F. Murdock, Detroit, Mich., U.S., 15th March, 1884; 5 years. Claim.—1st. In a stop-valve, an adjustable valve gate with inclined faces made in two parts which are disconnected from, but abut against, and support each other upon their rear zonical surfaces which, in one part, forms spherical segment with a stemway formed therein, and in the other, a corresponding socket, substantially as and for the purpose described. 2nd. In a stop-valve, an adjustable valve gate made in two disconnected parts, the abutting faces of which form a ball and socket joint, wherein the bearing faces are constructed to prevent the resisting force from bearing against the axial centre of the joint, and brings the resisting force at a point or points between the said central axis and the periphery of the two disconnected parts, substantially as and for the purposes specified. 3rd. In a stop-valve, an adjustable valve gate, the two parts of which have segmental ball-and-socket abutments upon their backs or meeting faces, central passage-way I and corresponding grooves K upon each part, in combination with the winged nut L, all combined and constructed, substantially as and for the purposes described. 4th. In a stop-valve, an adjustable valve gate made in two disconnected part, the abutting faces of which form a ball-and-socket joint, the centre bearing portion of which is cut away, substantially as set forth. 5th. In a stop-valve, an adjustable valve gate made in two parts, the abutting faces of which form a ball-and-socket bearing through the spherical segment of which bearing is a semi-spherical slotted stemway, in combination with the winged nut provided with means for connecting it to the gate, the parts being constructed to operate, substantially as and for the purposes described. 6th. In a stop-valve, a gate consisting of two valve disks provided with a spherical joint, and forming a wedge-shaped gate when closed, in combination with a nut through which the stem is threaded, the body of said nut being outside the body of

the valve gate, said nut being provided with wings or flanged at the lower end thereof, which engage with the grooves in the valve digks near the top thereof, said grooves being larger than the entering wings so that, in operating the gate, the valve disks are adapted to draw apart upon their lower ends when the gate is raised, and adjust themselves to the valve seats when closed, substantially as and for the purposes set forth. the purposes set forth.

No. 18,894. Washing Machine.

(Machine à Laver.)

Charles K. Jones and William F. Jones, London, Ont., 15th March, 1884; 5 years.

Claim.—The combination of cylinder C provided with orifices G, G, perforations H, H and steam-tight door F, with boiler A, substantially as shown and described and for the purpose specified.

No. 18,895. Fire-Arm. (Arme à Feu.)

Martin V. Kacer and William J. Kriz., St. Louis, Mo., U.S., 15th March, 1884; 5 years

Martin V. Kacer and William J. Kriz., St. Louis, Mo., U.S., 18th March, 1884; 5 years.

Claim.—1st. A compound gun barrel made in one piece of metal with a broad web b, and rifle-burrels located within the web between the shot barrels, substantially as described. 2nd. In a breech-loading fire-arm, the combination of shot barrels d. d. and rifle burrels ing fire-arm, the combination of shot barrels d. d. and rifle barrels in fire growth of the should be shoul

No. 18,896. Perpetual Calendar and Business Indicata Indicator. (Calendrier Perpétuel et Indicator.)

Claim.—The construction, in a perpetual calendar, of the rotte with nerforation n. the year disk N, with years thereon, the rotte disk M with numbers, names of stations and places, the indicator with horary numbers, apertures j and aperture l, the indicator with the apertures h. hi. flu, flu, flu, the date disk H with months with bers thereon, the quadrant G with diurnal signs, the plate wide apertures e and c, the month disk E and weekly disk D, the combined and arranged as described for the purposes set forth.

No. 18.807

No. 18,897. Extension Table. (Table à Rallonge) George W. Brenn, Philadelphia, Penn., U. S., 15th March, 1884; 5 years.

years.

Claim.—1st. The combination, with the top of a table, of the first bolsters secured thereto and provided with screw-threaded apertures of the hinged bolsters attached to said fixed bolsters and provided with screw-threaded apertures and the threaded legs, the said legs being with light threaded apertures and the threaded legs, the said legs being the said