

m, operating substantially in the manner and for the purpose described. 2nd. In a shaft-packing, the metallic supporting-plate A, its articulating sliding clip B, pressure-springs m and projecting crescent-shaped articulating seat with tension-spring E, substantially operating in the manner and for the purposes described. 3rd. A car-axle-packing composed of two sections, each having a raised segmental projection to receive a spring and also to increase the bearing surface of the wiper, said segmental portion being less than a half circle, and having their meeting edges bevelled to lap to fit varying sized axles, said segments being adapted to slide in guides, for the purpose of yielding to the motion of the axle, substantially as described. 4th. The combination, in an axle packing, having wiper segments adapted to lap at their meeting edges, and held in contact with the axle by an elastic spring for up and down motion, a side spring for yielding laterally, in combination with an axle, being substantially as described.

No. 21,496. Process and Apparatus for the Manufacture of Cellulose, or Paper Pulp from Wood Fibre.

(*Procédé et Appareil pour la Fabrication de la Cellulose ou de la Pâte à Papier de Bois.*)

Eugene B. Ritter and Charles Kellner, Podgora, Austria, 22nd April 1885; 10 years.

Claim.—1st. In an apparatus for producing paper pulp, a boiler or digester, consisting essentially of an iron casing, and a lead lining, united together by means of an alloy, whose melting point is below their own, and which will become soft at or near the normal working heat to which said boiler or digester is subjected, substantially as described. 2nd. The combination, in a boiler or digester, of the iron casing A, the lead lining B, of the iron bands b, b, and the fastening bolts d, d, substantially as described. 3rd. The bolts d, with chamber d, substantially as described. 4th. The employment of silver for seats and cones of valves, to be used in apparatus working with said solutions, substantially as described. 5th. In the manufacture of cellulose, or paper pulp, from wood fibre, the process of disintegrating and bleaching the fibre in one continuous operation, consisting essentially in subjecting the fibre to the action of a double salt solution, wherein sulphurous acid is combined with a double base in the proportions of about three atoms of the acid to one atom of the base, in a closed vessel or boiler to which steam is admitted, substantially as described. 6th. In the manufacture of cellulose of paper pulp from wood fibre by one continuous operation, the process of disintegration and bleaching, which consists in first soaking the wood in a disintegrating solution in a closed vessel, then, prior to heating, forcing in sulphurous acid until a pressure of at least two atmospheres is created, then forcing in steam, or steam mixed with sulphurous acid, and maintaining the contents of the boiler at a temperature exceeding that of boiling water, and finally bringing the temperature to a point corresponding to a steam pressure of three to five atmospheres, substantially as described. 7th. In the manufacture of cellulose of paper pulp from wood fibre by the action of sulphite solutions, the method of facilitating the disintegration and bleaching operations, which consists in an alternation of the solution between two or more boilers or digesters containing the fibre under different conditions of treatment, whereby each charge of fresh wood is subjected to the action of a solution already used and next subjected to the action of fresh solution, substantially as described.

No. 21,497. Vehicle Wheel. (*Roue de Voiture.*)

Edward Huber, Marion, Ohio, U.S., 22nd April, 1885; 5 years.

Claim.—In a vehicle wheel, the combination of the wheel, having two hubs, a frame having vertically-slotted trunnions securing-plates fastened to the ends of the trunnions and projecting beyond their periphery, and axle sliding vertically in the slotted trunnions plates, having guide arms, and secured to the upper and lower side of the axle within the frame, the guide-arms of the lower plate sliding in slots in the lower end of the frame, and springs secured to the lower plate upon the axle, and to the lower end of the frame cushioning the axle, as and for the purpose shown and set forth.

No 21,498. Method of Registering and Checking Baggage. (*Méthode d'Enregistrer et Contre-Marquer le Bagage.*)

Lewis G. Reynolds, Dayton, Ohio, U.S., 22nd April, 1885; 5 years.

Claim.—The within-described method of securing safe transportation and delivery of baggage to rightful owners, consisting in registering a number or mark for the same, with the name and address of the owner, the permanently attaching to the article of baggage, such registration number, or mark, and furnishing the owner with a duplicate of such registration number, or mark, all substantially as set forth.

No. 21,499. Row-Lock. (*Toilet.*)

Thomas Marshall, Ripon, Wis., U.S., 22nd April, 1885; 5 years.

Claim.—1st. A row-lock, having a swiveling ring, made in two parts, and provided with ears, between which are fitted elastic cushions, in combination with an oar ring made in two parts, whereby the two segments of the latter are adapted to bear freely inside the former, and to be fastened at various points of the oar as desired, substantially as set forth. 2nd. A row-lock, having an oar-ring made in two parts, fitting loosely within a swiveling ring, the latter also made in two suitably connected parts, between the points of contact, of which are fitted elastic cushions, whereby the two separate segments of the oar-ring are adapted to be fastened at points of different diameters of an oar, or to oars of various sizes, substantially as set forth. 3rd. In a row-lock, the swivelling ring B, made in two parts, each having a shoulder a and ears b, in combination with the elastic cushions c and the oar-ring C, made in two halves, substantially as shown and described.

No. 21,500. Combined Railroad Chair and Fish Plate. (*Coussinet et Eclisse de Chemin de Fer Combinés.*)

Nelson Newman, Springfield, Ill., U.S., 22nd April, 1885; 15 years.

Claim.—1st. As a means for connecting rail ends, a fish plate provided with projections adapted to engage recesses on the rail-webs, said projections and recesses having squarely abutting faces, so as to be adapted to positively hold the rails from separating, substantially as shown and described. 2nd. The fish plate, provided with ratchet-shaped projections, with their abrupt faces or ends towards each other, and the middle of the plate adapted to enter and engage correspondingly formed recesses in the rail web, substantially as and for the purpose specified. 3rd. In combination with the fish plates, provided on their inner faces with projections, made abrupt on the sides towards the middle of each plate, adapted to enter and engage recesses in the rail webs, means for forcing and holding the plates against the web, so as to insure and maintain the engagement of the projections and recesses, substantially as and for the purpose set forth. 4th. The fish plate, provided with projections engaging recesses in the rail webs, a pin adapted to be driven into the sleeper, between the rail ends, and provided with arms adapted to press against the outer faces of the fish plates and force and hold them against the rail webs, substantially as shown and described. 5th. As a means for connecting the ends of rails, the fish-plates having portions punched or driven in to form projections on their inner faces, adapted to engage depressions or recesses in the rail webs, substantially as shown and described. 6th. The combined rail chair and fish plate, having projections on the inner faces, of the fish plate portions adapted to engage squarely the abrupt ends of suitably-shaped recesses or depressions in the rail webs, so as to positively hold the rails from separating, substantially as shown and described. 7th. The combined rail chair and fish plate, consisting of the portion adapted to receive and support the foot of each rail, and the plates embracing the rail webs, and provided with internal projections engaging depressions in the latter, in combination with the pin adapted to be driven into the sleeper between the rail ends, and provided with arms engaging and pressing against the outer faces of the fish plates, substantially as and for the purpose set forth.

No. 21,501. Indicating Counter for Marking at Pool. (*Compteur-Indicateur pour Marquer à la Poule.*)

Simon P. Kleiser, Toronto, Ont., 22nd April, 1885; 5 years.

Claim.—1st. The pointer C, pivoted at the centre of the dial B, and connected to the ratchet wheel D, in combination with the pivoted bar F, the pawl C passing between the pins b and c, and arranged to operate substantially as and for the purpose specified. 2nd. The pointer C, pivoted at the centre of the dial B, and connected to the ratchet wheel D, in combination with the pivoted bar F, the pawl G passing between the pins b and c, and the lever H, the whole arranged and operating substantially as and for the purpose specified. 3rd. The pointer C, pivoted at the centre of the dial B, and connected to the ratchet wheel D, in combination with the pivoted bar F, the pawl G passing between the pins b and c, and the lever H and spring I, the whole being arranged and operating substantially as and for the purpose specified. 4th. The pointer C, pivoted at the centre of the dial B, and connected to the heart E, in combination with the pivoted bar J, arranged to come in contact with the heart E, substantially as and for the purposes specified. 5th. The pointer C, pivoted at the centre of the dial B, and connected to the heart E, in combination with the pivoted bar J and push-rod K, substantially as and for the purposes specified. 6th. The pointer C, pivoted at the centre of the dial B, and connected to the heart E, in combination with the pivoted bar J and push-rod K, and spring I, substantially as and for the purpose specified. 7th. The pointer C, pivoted at the centre of the dial B, and connected to the heart E, in combination with the pivoted bar J having a spring finger L extending from its top end, to come in contact with the tail e, of the bell hammer f, substantially as and for the purpose specified. 8th. A two-coloured card N, placed behind a hole in the dial B, and connected to a spindle P, in combination with the fingers k, l, m, o, actuated by the pin n on the ratchet wheel D, substantially as and for the purpose specified.

No. 21,502. Harvester. (*Moissonneuse.*)

Rufus Dutton and Rudolf Eickmeyer, Yonkers, N.Y., U.S., 22nd April, 1885; 15 years.

Claim.—1st. In a two-wheeled vehicle, the combination, substantially as hereinbefore described, of a suitable frame and cutting apparatus, and a rod or bar rigidly connected to the cutting apparatus at its inner shoe, and projecting upwardly therefrom beneath the axle and between the wheels of the machine, as set forth. 2nd. The combination, substantially as hereinbefore described, a rear side cut mowing machine frame, a draft link, the cutting apparatus and rod or bar rigidly connected to said cutting apparatus at its inner shoe, projecting forwardly and upwardly to the draft link and coupled thereto, as set forth. 3rd. In a two-wheeled harvester, the combination, with rear side cutting apparatus, of the lifting mechanism embodying the rotative bar rigidly connected to the inner shoe and projecting forwardly and upwardly between the wheels and beneath the axle of the machine, and a hand lever coupled to said rotative rod and located in front of the drive seat, substantially as described. 4th. In a two-wheeled harvester, the combination, substantially as hereinbefore described, of the cutting apparatus and the rotative bar or rod extending forwardly and upwardly beneath the axle and between the wheels of the machine, and rigidly connected to the cutting apparatus, as set forth. 5th. In a two-wheeled harvester, the combination, substantially as hereinbefore described, of the cutting apparatus, the rotative rod or bar rigidly connected thereto and extending beneath the axle and between the wheels of the machine, and a hand lever coupled to said rod for first lifting it and then rotating it, whereby the cutting apparatus is first lifted bodily and then