

The Canadian Patent Office

RECORD

Vol. I.—No. 4.

JULY, 1873.

Price in Canada \$1.50 per An
United States - \$2.00

CONTENTS.

INVENTIONS PATENTED,	93
INDEX OF INVENTIONS,	103
INDEX OF PATENTERS,	103
ILLUSTRATIONS,	101 & 109

INVENTIONS PATENTED.

No. 2219. GEORGE B. STOCK, Toronto, Ont.,
7th April, 1873, for 5 years: "Shaft Attach-
ment for Carriages." (Ajustage des limonnières
de voitures.)

Relates to the method of joining the shafts to the axle-trees with draw-heads, and to the combination of a vulcanized rubber wedge with a clamp screw for the purpose of keeping the shaft-shank in its place and doing away with the usual noise of bolts and nuts.

Claim.—1st. The combination of the clamp screw A, with vulcanized rubber wedge B; 2nd. The combination of shafts H, H, with shaft-shanks I, I, and the peculiar form of said shaft-shanks.

No. 2220. MARCELLUS G. HOLTON & SETH GREEN, Rochester, N. Y., U. S., 7th April, 1873, for 5 years: "Fish Spawn Hatcher." (Appareil pour l'incubation des œufs de poisson.)

Claim.—1st. A spawn hatching apparatus so constructed as to permit an upward flow or circulation of the water through the trays; 2nd. A spawn hatching device, the trays C, and water inlet opening d, in combination with the deflector h, arranged to operate as described; 3rd. Combination with the spawn hatching apparatus a, the over-flow channel C, arranged to equalize the over-flow on all sides; 4th. Combination with the spawn-trays C, the hopper-shaped bottom, or its equivalent, for the purposes set forth.

No. 2221. ISRAEL KINNEY, London, Ont., 7th April, 1873, for 5 years: "Bed, Lounge and Chair Bottoms." (Fonds de lit, de siège et de causeuse.)

Claim.—1st. The combination of the hooks or gripes with the cords, wires or other material stretched across a frame and forming the bed, chair or lounge bottom; 2nd. The use of corrugated wires or flat strips of metal as set forth.

No. 2222. BEAUCHAMP COKLEY, Mooers, N. Y., JAMES SHERLOCK & ROBERT E. CASEY, Ellenburgh, N. Y., U. S., 7th April, 1873, for 5 years: "A Water Wheel." (Une roue hydraulique.)

Claim.—1st. The combination of the shaft a, sleeve C, water-wheels d and e, secured respectively to a and c, and gear-wheels f, and g, respectively to a and c, working in combination with a wheel h, or its equivalent; 2nd. The wheel d, with buckets set in one direction in combination with wheel e, having buckets set in the opposite direction; 3rd. The arrangement on a main shaft a, of water wheels secured thereto, and arranged alternately with wheels fixed by their rims and serving as spouts as described.

No. 2223. CHARLES W. SIEMENS, Westminster, London, Eng., 7th April, 1873, for 15 years: "Process and Apparatus for the Manufacture of Iron and Steel." (Procédé et appareil de fabrication du fer et de l'acier.)

Claim.—1st. The method of effecting the separation of metallic iron from heated ore mingled with fluxing materials by causing

carbonaceous matter to be mixed therewith by means of the slow rotation of a rotative furnace and forming the separated metal by means of a quicker rotation into balls for the production of wrought iron or puddle steel or for the production of cast steel by the employment of a separate furnace; 2nd. The method of separating metallic iron from ore in the manner and by the means above referred to, and converting the separated metal into cast iron or cast-steel, in one and the same rotative furnace by the further addition of solid carbonaceous matter, cast iron, spiegeleisen or ferro manganese; 3rd. The use for the manufacture of iron and steel of a rotative regenerating gas furnace constructed, arranged and operating as described with reference to the Figures on sheets 1, 11, and 111, of the accompanying drawings, that is to say the cylindrical furnace chamber A, with truncated conical ends, the one of which A², is fitted with a working door a1, and provided with a tap-hole a², and the other of which A1, forms a throat through which the heated air and gas are admitted by one of the two flues C, C1, for a pair of the regenerators D1, D², D³, D4, and also through which throat the products of combustion after having acted in the furnace chamber A, are emitted by the other of the flue C, C1, to the other pair of the said regenerators; 4th. The use for lining rotative furnaces of bricks or lumps compounded chiefly of bauxite and dense carbonaceous matter; 5th. The method described of lining rotative furnaces with bricks or lumps such as are above referred to, built loosely in and cemented and glazed by fused ore or hammer slag; 6th. Forming the lining of rotative furnaces with internally projecting circular ribs R, R, for the purpose of dividing the metallic contents of the furnace into several balls; 7th. The use in combination with a rotative furnace of gearing B, for effecting its rotation so arranged that the furnace can be stopped and several definite velocities of rotation can be imparted to it from a prime mover working at regular speed.

No. 2224. RICHARD SMITH, Sherbrooke, Que.,
7th April, 1873, for 5 years: "A Navigation
Apparatus." (Un appareil de navigation.)

Consists of two floats propelled by paddle-wheels working between them. The person operating the floats occupies a seat over and between the paddle-wheels which are made to revolve either by foot or hand power. The floats being connected together by a frame and by the seat supports.

Claim.—1st. The floats i, j, of oak or other suitable material made in a double conical form (the bases of the two cones being placed together, and their vertices being respectively at bow and stern), or in other similar form; 2nd. The construction of the floats i, j, by means of pieces of oak, or other light material fastened together by means of a bar or rod n, a, Fig. III, passing through the centre of the float; 3rd. The application of two or more paddle-wheels g, g, for propulsion of the apparatus and to be worked in unison or adversely; 4th. The combination of the hand and foot power obtained by means of the hand-wheels a, a, and pedals K, K, attached to the crank-wheels l, l.

No. 2225. CHRISTIAN KUMPF, Waterloo, Ont.,
7th April, 1873, for 5 years: "A Harvester
Reel." (Un râtelier de moissonneuse.)

Relates to the motion gained which extricates the teeth of the rake-bar from the grain after having raked the grain on to the platform of a reaping machine and returns the teeth into position keeping them firm in their places for the purpose of raising fallen grain on to the platform.

Claim.—The combination of the rack-bar sliding on each of the arms of the reel with teeth in the inside of the end of it gearing into the pinion fixed on the rake-bar, the said rake-bar being regulated in its motion by a rack roller revolving on a shaft affixed to the end of the rack-bar at right angles to it into the groove of an eccentric cam within which the shaft of the reel revolves. Also the combination of a connecting bar connected by a pin with an eccentric fastened to the end of the rake bar, the said bar being regulated in its motion in the manner described by the rack-bar.