Claim.—1st. The gauge tube A having the ground back *a*. 2nd. The gauge tube A provided with the float B. 3rd. The gauge tube A having a double bulb float D. 4th. The gauge tube A provided with the float B, and guard C.

No. 14,960, Improvements on Fences.

(*Perfectionnements aux clôtures.*)

Joseph DuBois, Waverly, N. Y., U. S., 14th June, 1882; for 10 years.

Claim.—1st. A portable worm fence composed of the posts B, having the diverging feet or pins *c c* inserted near the bottom, on opposite sides of each alternate post, and the rails D. 2nd. The post B adapted to rest upon the top of the ground and provided with diverging feet or anchor pins *c c*, inserted near the bottom on opposite sides of alternate posts, and the rails D, the upper or top rail having mitered ends at the point of contact *e*. 3rd. The posts B having the diverging feet or pins *c c* inserted near the bottom of the posts, the ballast receptacle A adapted to rest upon the pins *c c* all combined and arranged as described. 4th. A fence composed of the posts B, having divergent feet *c c* inserted near the bottom, on opposite sides of each alternate post, the rails D, the top ones of which have mitered ends at the point of junction, and the ballast receptacles A adapted to rest upon the feet *c c* within the angles of the fence.

No. 14,961. Improvements on Machines for Manufacturing Paper Pulp from Wood. (*Perfectionnements aux machines à fabriquer la pâte à papier de bois.*)

Edward M. Ball, Coaticook, Que., 14th June, 1882; gor 5 years.

Claim.—1st. The combination of two oppositely revolving grinders with mechanism for feeding said grinders together. 2nd. The combinatien, with two oppositely revolving grinders provided with mechanism for feeding said grinders together, of means for suplying water to the grinding surfaces of said grinders. 3rd. The combination, with oppositely revolving grinders facing each other, of means for feeding one of said grinders to the other. 4th. The combination, with two oppositely revolving grinders, facing each other and provided with mechanism for feeding one of the grinders to the other, of means for supplying water to the grinding surfaces of said grinders. 5th. The combination, with two oppositely revolving hollow grinders, facing each other, and provided with mechanism for feeding one grinder to the other, of means for supplying water to the grinding surfaces of said grinders. 6th. The combination, with two oppositely revolving grinders facing each other, having concaved grinding surfaces to hold and grind the ends of a log, stick or piece of wood, and provided with mechanism for feeding one grinder to the other as the wood is ground, of means for supplying water to the grinding surfaces of said grinders. 7th. The combination, with two oppositely revolving grinders facing each other, provided with means for supplying water to the grinding surfaces thereof, and constructed in such manner as to discharge the water and pulp at the periphery of the grinders, of mechanism for feeding one grinder to the other. 8th. The combination, with a revolving grinder, having a concaved grinding surface, a cylindrical shell surrounding the same and joining the periphery of the grinding surface to form a space between the walls of said concaved and cylindrical portions, and having an orifice extending from the grinding surface to said space, of a head or chamber meeting the said grinder to form a water chamber. 9th. The combination of the revolving grinder and the head or chamber. 10th. The combination, with the revolving grinders and heads or chambers, of mechanism for feeding one grinder with its head or chamber, to the other grinder. 11th. The combination, with the oppositely revolving grinders and the head, or chambers, the latter sliding in ways in a suitable tank, of mechanism for feeding water to said heads or chambers. 12th. The combination of two oppositely revolving hollow grinders provided each with a hollow shaft joining the smaller end of said hollow grinder, with mechanism for feeding said grinders together. 13th. The combiuation of two oppositely revolving hollow conical grinders provided each with a hollow shaft meeting the smaller end of said grinders and having mechanism for feeding said grinders together, with means for supplying water to the grinding surfaces of said grinders. 14th. The combination, with two oppositely revolving hollow or concaved grinders provided each with a hollow shaft meeting the smaller open end of said grinders and having mechanism for feeding one grinder to the other, of means for supplying water to the grinding surfaces of said grinders.

No. 14,962. Improvements on Bread Boxes.

(*Perfectionnements aux boîtes à pain.*)

Joseph Fournier, Jr., New York, N. Y., U. S., 14th June, 1882; for 5 years.

Claim.—1st. The bread box A provided with the loaf-supporting board B, adapted to be held inside of the box when not in use. 2nd. The box A provided upon the inside with the cleats *b* and *b*1, in combination with the board B. 3rd. The board B having the slotted block C secured to it for holding the bread knife. 4th. The board B rounded at its ends, in combination with the box A, provided upon the inside with the cleats *b b*1. 5th. The combination, with the box A provided upon the inside with the cleats *b* and *b*1, of the board B rounded at its ends and provided with the slotted block C. 6th. The board B provided with the dowel pins *f*, in combination with the cleats *b* having the dowels *f*1. 7th. The hinged section *g* having the arm *g*1, in combination with the board B and stop pin *h*.

No. 14,963. Improvement in the Method of Treating Wood for Paper Making and other Purposes. (*Perfectionnement dans la méthode de traiter le bois pour la fabrication du papier et autres fins.*)

Carl D. Ekman, London, Eng., 14th June, 1882; for 15 years.

Claim.—1st. The boiling of wood under pressure with a solution containing sulphurous acid and magnesia in the proportions and under the conditions described. 2nd. The blowing off of gas and steam during the operation, by a valve or its equivalent.

No. 14,964. Improvements on Carriage Seats.

(*Perfectionnements aux sièges des voitures.*)

John M. Perkins, South Bend, Ind., U.S., 14th June, 1882; for 5 years.

Claim.—1st. The combination of the base frame having the under cut groove in its edge, the back and end piece having the lower edge seated in the groove, and the handles secured firmly to and connecting the ends and the frame, whereby the back and ends are retained in the groove. 2nd. The waggon seat having its back and ends composed of thin sheets connected together with the upper edge stiffened, protected and bound together by grooved strip E applied in such manner as to produce a water tight joint. 3rd. As an improvement in the construction of waggon seats, the combination of a continuous back and end piece B composed of layers of veneer cemented together and bent into shape, and the continuous grooved wooden binding applied and cemented to the edge in snch manner as to exclude water from the same. 4th. The combination of the base frame A, the continuous laminated back and ends, and the grooved handle embracing or clasping the ends and secured firmly thereto, and to the base frame. 5th. The seat composed of the grooved base frame, the laminated back and ends in one sheet, the grooved binding and the handles. 6th. The seat composed of the grooved base frame, the laminated back and ends in one sheet, the handles and the metal T-shaped binding. 7th. The waggon seat composed of the grooved base frame, the laminated back and ends in one sheet and the handles. 8th. Attachment of the continuous back B to the base frame A in such a manner as will hold the same rigidly together, by forming the wedge-shape *b d* at their junction.

No. 14,965. Improvements on Cuspadors.

(*Perfectionnements aux crachoirs.*)

William Westlake, Brooklyn, N. Y., and the Adams and Westlake Manufacturing Company, Chicago, Ill., U. S., 14th June, 1882; for 5 years.

Claim.—1st. A cuspador provided with a rigid base plate or platform, detachably secured to the bottom of the vessel, and extending laterally beyond the body. 2nd. A cuspador provided with a rigid base plate or platform, extending beyond its body in a downward incline, to form a bracing support. 3rd. A cuspador platform or base provided with a flat central portion *c* to receive the bottom of the cuspador body, and with an incline bracing portion *c*1. 4th. A cuspador platform or base provided with the inclined bracing portion *c*1 and with a supporting hoop or ring C1. 5th, A cuspador body provided with a recess in its bottom adapted to receive a screw socket. 6th. A cuspador provided with tubes set in its body, and adapted to hold umbrellas. 7th. The combination of tubes set in its body and adapted to hold umbrellas, and a base plate or platform extending laterally beyond the body of the cuspador. 8th. In combination with the cuspador body, the tubular shell G1 of size and shape to fit therein, and having umbrella holding tubes G set on its inner surface.

No. 14,966. Improvements on Barrel Staves.

(*Perfectionnements aux douves des barils*)

Edward M. Jewett, (Assignee of John J. Burk,) Buffalo, N. Y., U. S., 14th June, 1882; for 5 years.

Claim.—1st. As a new article of manufacture, a bent wooden stave having condensed and laterally spread fibres. 2nd. A stave for barrels having its outer surface covered with a series of grooves.

No. 14,967. Improvement in Steam Boilers.

(*Perfectionniment des chaudières à vapeur.*)

Garrie H. Rheutan, Hartford, Ct., U.S., 14th June, 1882; for 5 years.

Claim.—1st. The tubular boiler having the front of its water leg flush with the front head of the boiler shell, and with such head provided with the arched flange to project from the shell and the opposite ends of the said water leg. 2nd. The combination of the front plate E provided with the two flanges *b c* extending from it, with tubular boiler having the front end of its shell even, or flush with the front of the water leg of such boiler, and also having the arched flange to project from such end, and from the opposite vertical ends of the water leg, to the said flush plate.

No. 14,968. Improvements in the Manufacture of Cheese. (*Perfectionnements dans la fabrication du fromage.*)

James Naylor, jr., Rochester, N.Y., U.S., 14th. June, 1882; for 5 years.

Claim.—1st. In a cheese press, the pressing mechanism and curd receptacle in combination with the spiral springs arranged as described. 2nd. The pressing mechanism consisting of the screw D, having a free movement in line with the press, and held from turning by means of the groove *d* and feather *c*, the hand wheel F provided with the groove *f* and plates *f*1 *f*1, in combination with the curd receptacle and frame of a cheese press. 3rd. The arrangement consisting of placing a number of hoops in line with each other, making one common receptacle, so that the curd is pressed in one solid column. 4th. The tapering paper hoop A, in combination with the galvanized iron hoop B also tapered, both forming a receptacle for the curd and a mould for the cheese. 5th. In the art of making cheese, pressing the curd within the hoop destined to serve as the body of the permanent package. 6th. The art of making cheese, curing the pressed curd within the hoop destined to serve as the body of the permanent package. 7th. As a new article of manufacture, a cheese made within a paper envelope saturated with paraffine. 8th. The process of making cheese, consisting of the following steps: pressing the curd within the paper hoops A into one solid column, then separating by means of wire, then pressing with cap or press cloth, then curing within the same paper hoop A, and finally putting on the covers.