rally through the sieve heads and free to turn independently of the sieve, said shaft being journalled in the housing, and a hood having its sides extending down at the ends of the sieve and rigidly attached to said shaft, and adapted to be drawn over said opening by means of said shaft, substantially as and for the purposes set forth. 2nd. The combination, with a rotary sieve, of substantially cylindrical shape loosely mounted on a shaft journalled in a suitable housing, and having a feed opening therein, and a section adjacent to said feed opening of less radial length than the main part, of a hood having its sides extending down at the ends of the sieve, and rigidly attached to said shaft, said hood being adapted to travel over said feed-opening and section, substantially as and for the purposes set forth. 3rd. The combination, with a rotary sieve, of substantially cylindrical shape set on a shaft journalled in a suitable housing, and having at or near each end wedge-shaped projections with sockets therein, of a cover to said housing having spurs on outside thereof, adapted to project through holes in said housing, and into said sockets when said door is open to lock said sieve in a given position, substantially as and for the purposes set forth. 4th. The combination, with a housing having a rotary sieve journalled therein, of an ash-receptacle cover hinged at one end to said housing and having pan supports, substantially as and for the purposes set forth. 5th. The combination, with a suitable housing having a rotary sieve journalled therein, of an ash-receptacle cover hinged at one end to said housing and having swinging pan-supports, substantially as and for the purposes set forth.

No. 36,012. Washer and Concentrator for Ores. (*Concentrateur de minerai.*)

Carl Lührig, Dresden, Saxony, German Empire, 17th February, 1891; 5 years.

Claim.—1st. In a percussion table, the herein described means of guiding the travelling band by strips of wood attached to its outer surface, and guided in a channel iron above. 2nd. In a percussion table, attaching the feeding boxes, jet pipes, and distributing table edged with fabric to the movable frame, substantially as described. 3rd. The combination of three or more percussion tables, arranged with communicating channels so as to constitute a compound machine for successive treatment of the material without requiring manipulation thereof, substantially as described.

No. 36,013. Oil for Painting. (*Huile à peinture.*)

Adam Alexandre Wilson, Montreal, Quebec, Canada, 17th February, 1 91; 5 years.

Résumé.—Un nouvel article de manufacture, une huile à peinture composée d'un mélange d'huile animale, d'huile végétale de borax et de "Japan dryer," dans les proportions et de la manière ci-dessus décrites et pour les fins sus-mentionées.

No. 36,014. Manufacture of Axle Boxes.

(*Fabrication des boîtes à graisse.*)

John Donnelly, William McLaren and Ambrose Trask, all of London, Eng., 19th February, 1891; 15 years.

Claim.—1st. The herein described process of manufacturing axle box shells from a flat plate without weld or join, which consists in submitting the plate to a series of cupping or drawing operations in a series of dies of progressively-decreasing size, whereby the plate is brought by progressive stages first to a box like form with bulged sides at certain points, and then the bulges are formed into corrugations or ribs and intermediate external grooves for the horn plates, and if required internal grooves for dust guard, without drawing metal from any other part of the box or sensibly diminishing the thickness of the metal in the operation of forming said corrugations substantially as described. 2nd. The herein described process of manufacturing axle box shells, which consists in submitting a flat plate to progressive series of cupping and drawing operations in dies, whereby the box like shell is formed with bulged sides which are afterwards formed into corrugations and grooves, as described, and stamping or embossing the top or closed end of the box shell between dies, to form a seat for the spring and bosses for the lid hinge, substantially as specified.

No. 36,015. Process of Making Artificial Musk. (*Procéde de fabrication de musc artificiel.*)

Albert Baur, Biberach, Germany, 19th February, 1891; 5 years.

Claim.—The process of making artificial musk which consists in heating toluoil with butan chloride, bromide or iodide diluting the product, distilling it with steam, treating the vapors between 170°, 200° C, with fuming nitric and sulphuric acid, and crystallizing the result with ammonia or carbonate of ammonium, substantially as specified.

No. 36,016. Delivery Waggon.

(*Voiture de distribution.*)

Christain See, St. Paul, Minnesota, U. S. A., 19th February, 1891; 5 years.

Claim.—1st. In a waggon, the combination of a platform having a recess at the rear end, a step suspended below said recess, and a seat mounted upon a standard upon said step, substantially as described. 2nd. In a waggon, the combination, with the platform having a recess at its rear end, a step suspended beneath said recess, a seat mounted upon said step, and a brake operating lever extending downward adjacent to said step, substantially as described. 3rd. In a waggon, the combination of the platform having a recess at its rear end, and an open work guard around its outer edge, a step below, and a driver's seat in the rear of said recess, and a rein support arranged centrally upon said platform, substantially as and for the purposes set forth. 4th. In a waggon, the combination of the platform having an open work guard and a recess at its rear end, a step suspended below said recess, a driver's seat supported upon said step within or back of said recess, a rein support arranged centrally upon said platform, and a transverse shelf arranged underneath said platform immediately in front of the hind wheels, substantially as and for the purposes set forth. 5th. In a waggon of the class described, the combination, with its platform, of an open work guard around the same, a semi-circular recess at the rear end, cushions upon the sides of said recess, a step suspended beneath said recess, a seat mounted upon a standard upon said step, a brake operating lever extending to one side of said recess, and a transverse receptacle suspended underneath said platform in front of the hind wheels, substantially as described. 6th. In a waggon of the class described, the combination, with the rein support or standard, of a strap passed through the same, connecting the bridle bit and the hitching weight, a lifting strap connected to said weight, and means operated by the driver at the rear of the waggon for bringing said lifting strap into engagement with the adjacent waggon wheel, whereby said wheel in its forward movement serves to lift said weight, substantially as and for the purposes set forth. 7th. In a waggon of the class described, the combination, with the hitching weight, of a strap running from said weight to the bridle bit, a lifting strap attached to said weight, devices upon one of the wheels of the waggon adapted to engage said lifting strap, and to pull upon the same to lift said weight, and means operated by the driver for bringing said strap into engagement with said devices, substantially as and for the purposes set forth. 8th. In a waggon of the class described, the combination, with the hitching weight having a strap connecting it with the bridle bit of the team and a lifting strap, of supports for said lifting strap underneath the waggon body, a holder supporting the end of said strap adjacent to a wheel of the waggon, devices upon said wheel for engaging said strap, and means operated by the driver for moving said strap holder so as to bring the same into engagement with one of the devices upon said wheel, substantially as described. 9th In a waggon of the class described, the combination, with a hitching weight and a lifting strap attached to the same, of a roll or drum journaled underneath the waggon body and supporting said strap, a clutch engaging said strap and holding it in its raised position, means operated by the driver for releasing said clutch, devices upon the waggon wheel, adapted to engage the strap when in suitable position, and to lift the weight, and means operated by the driver for bringing said strap into engagement with said devices, substantially as described. 10th. In a waggon of the class described, the combination, with the hitching weight and its lifting strap, of a clutch upon the waggon body engaging said strap and holding the same in a raised position, means operated by the driver for releasing said clutch, and mechanism operated by the driver engaging said strap and lifting the same, substantially as and for the purposes set forth.

No. 36,017. Machine for Ditching.

(*Machine à fassoyer.*)

Walter Carter and David Mackenzie, both of St. Thomas, and William Albert Ferguson, of Dehli, all in Ontario, Canada, 19th February, 1891; 5 years.

Claim.—1st. The combination, with the truck wheels and elevating wheel, of a bowed axle uniting the truck wheels, and a frame vertically adjustable in the bow section in which the elevator wheel is journalled, substantially as described. 2nd. The combination of two truck wheels, a bowed axle uniting the two wheels and connected by braces or rods with the draft, an elevator wheel located in the bow, journalled in the frame and the latter pivoted adjacent to the point of application of the draft, and a bale adapted to travel vertically within the axle bow to which the rear of said frame is pivoted, substantially as described. 3rd. The combination, with an elevating wheel, of elevator blades *e*, pivots on said blades, spring arms connected to said pivots, and a trip adapted to raise said blades, whereby the pivots are shifted and blades are held in their raised position by the spring arms, substantially as described. 4th. The combination, with the elevating wheel, of blades, each held in normal position by a spring, said spring adapted also to hold the blade in its discharging position, substantially as described. 5th. The combination, with the elevator wheel, of pivoted blades on its periphery, a strip adapted to raise each blade to discharge its load of earth, and means for acting directly on the edges of said blades for forcing them back to their normal positions, substantially as described. 6th. The combination, with the elevator wheel, of blades pivoted upon arms, a tripping lug E^1, a retracting wheel G^1, and spring rods G adapted to hold the blades both in normal and in discharging positions, substantially as described. 7th. The combination, with the plow standard and the straining rods J, of the pendent link J^1, and means for engaging the team thereto, substantially as described. 8th. The combination, with the plow point and rack bar, of the engaging pinion and a spring for holding the rack to the pinion by a yielding connection, substantially as described. 9th. The combination, with the plow point and an earth channel in continuation thereof, of standards C^2, extending from the channel forward and movably engaged in clips pivoted to the frame, rods J pivoted to said standards C^2, extending forward to the draft and rods K, pivoted to the said arms C^2, and extending to the uprights of the frame D, the construction being such that when the plow point is raised it is thrown back from the wheel, substantially as described.

No. 36,018. Wad for Guns. (*Bourre de fusil.*)

John Walker Scandland, of Selma, and Bolivar Cooke Converse, Springfield, all in Ohio, U.S.A., 19th February, 1891; 5 years.

Claim.—1st. In wads for shot-guns, two wads between the powder and shot, such wads being one or both formed with the contacting