

Claim.—1st. The endless apron B provided with the pushing bars D, in combination with the cleaning and greasing brushes and their operating mechanism. 2nd. The combination of a cleaning roller brush F f with a greasing roller brush H g, an oil reservoir, and an endless apron B, and their operating greasing, as described.

No. 16,630. Improvements on Sewing Machines. (*Perfectionnements aux machines à coudre.*)

Miles W. Simkins, Newburgh, Ont., 9th April, 1883; for 5 years.

Claim.—1st. The combination of groove A and spring latch C or needle bar. 2nd. The combination of notch E and slant F on top of needle shank.

No. 16,631. Improvements on Hames. (*Perfectionnements aux attelles.*)

Lawrence Carr, Shakopee, Minn., U.S., 9th April, 1883; for 5 years.

Claim.—1st. The combination of a hame, a threaded stem attached to said hame, a clip, clevis or fitting encircling said stem, and a nut fitting upon the stem or long threaded bolt, and arranged to bear against the clip, clevis or fitting and to raise or lower the same. 2nd. The hame composed of the body A provided with the threaded stem B carrying loop or fitting a and nut D, and with threaded stem C carrying nut D, breast ring clevis and hame tug clevis or fitting b c. 3rd. The combination of the hame with the hame wood A, iron hame plate B, two arms or posts e, threaded stem or draft bar d, adjustable clevis E, twisted triangular breast ring clevis f and long shouldered journal nut D.

No. 16,632. Improvements in the Art of Weaving Cloth. (*Perfectionnements dans l'art de tisser.*)

Thomas Isherwood, Westerley, R.I., U.S., 9th April, 1883; (Extension of Patent No. 14,979.)

No. 16,633. Improvements in the Art of Weaving Cloth. (*Perfectionnements dans l'art de tisser.*)

Thomas Isherwood, Westerley, R.I., U.S., 10th April, 1883; (Extension of Patent No. 14,979.)

No. 16,634. Improvement on Skiving Machines. (*Perfectionnement des machines à biseauter les cuirs.*)

William S. Eaton and Henry G. Dorr, (assignees of Christopher Amazen.) Boston, Mass., U.S., 10th April, 1883; for 5 years.

Claim.—1st. The combination, in a skiving or trimming machine, of feeding mechanism consisting of a revolving roll and a revolving disk having the relation to each other with a cutting, or trimming device. 2nd. The combination of the feeding mechanism and cutting or trimming device with an edge guide D. 3rd. The combination of the feeding, cutting or trimming mechanism with a presser E. 4th. The combination of the feeding mechanism, the cutter and an edge guide transversely adjustable in relation to the feeding mechanism. 5th. The combination of the feeding mechanism, a revolving cutter and means for moving it vertically in relation to the feeding mechanism. 6th. The combination of the feeding mechanism, the revolving cutter and means for varying its inclination in relation to the feeding mechanism. 7th. The combination of the feeding mechanism, the cutter and means for moving it to and from the feeding mechanism. 8th. The combination of the feed roll having the surfaces a a', the disk arranged in relation to the feed roll, the cutting disk and means for positively revolving the roll and disks in the same direction.

No. 16,635. Waterproof Blacking. (*Virage hydrofuge.*)

John A. Vankeuren and Louis N. Vankeuren, Bridgeport, Ct., U.S., 10th April, 1883; for 5 years.

Claim.—1st. A composition composed of linseed oil, palm oil, talow, gum asphaltum, bees wax, lamp black and gutta percha.

No. 16,636. Improvements on Packing Vessels. (*Perfectionnements aux vaisseaux d'emquetage.*)

Clark Robinson, Hornellsville, N.Y., U.S., 10th April, 1883; for 5 years.

Claim.—1st. The vessel composed of the outside sections a b and lining sections c d, the latter applied and united by strips D. 2nd. The combination of outside supporting sections b, inside lining sections c extending outward between the edges of the sections b, and binding strips D applied to, and uniting the edges of the lining sections. 3rd. The vessel consisting of outside sections b and bottom a, lining c d and strip D extending beneath the bottom a and secured thereto for the purpose explained. 4th. In combination with the vessel A and cover B, the strips D applied to the joints and extended above and below the vessel, whereby they are adapted to be bent upon, and to retain the bottom and cover in place. 5th. The vessel consisting of outer body a b, lining c d and binding strips D.

No. 16,637. Improvement on Fertilizer Distributors. (*Perfectionnement des distributeurs d'engrais.*)

Charles E. Patric, Rochester, N. Y., U.S., 11th April, 1883; for 5 years.

Claim.—1st. A hopper for a fertilizer distributor combined with an endless chain entirely within said hopper, and adapted to move

longitudinally along the bottom thereof, to undermine and carry away to the discharge opening the lower most particles of material, without disturbing the mass above the plane of motion. 2nd. In a hopper for a fertilizer distributor, an endless chain arranged to move along the margin of the hopper bottom within the hopper, two sprocket wheels to hold and propel the same combined with fingers attached to said chain, which project towards, the median line with a backward inclination as to the direction of motion, whereby the entire surface of the hopper bottom may be scraped and the matter thereon moved forward and inward toward said median line to be discharged there. 3rd. A fertilizer distributor composed of an endless chain D, the parts whereof are fingers E having thin edges in advance, and cavities i beneath, behind said advance edge, and two stud pins g g combined with the link pieces h provided at each end with a sleeve hub fitted to engage one of the pins g. 4th. A fertilizer distributor chain D, the links whereof are provided, on their outer edges, with the oblique scraping ribs m m.

No. 16,638. Improvements in Steam Boilers. (*Perfectionnements aux chaudières à vapeur.*)

Patrick Fitzgibbons, Oswego, N. Y., U.S., 11th April, 1883; (Extension of Patent No. 8,740.)

No. 16,639. Improvements in Door Hangers. (*Perfectionnements dans les pentures des portes.*)

Warren E. Warner, Syracuse, N. Y., U.S., 11th April, 1883; (Extension of Patent No. 8,663.)

No. 16,640. Improvements in Heating Apparatus. (*Perfectionnements aux appareils de chauffage.*)

Marie R. F. Desjardins, (Wife of Octave Desjardins,) Montreal, Que., 11th April, 1883; for 5 years.

Résumé.—Le tuyau A BC avec les balustrades F G H, et les chaînes L L L L en combinaison avec le ventilateur K, le trou d'homme J, les crochets J J J J et la calotte P.

No. 16,641. Improvements on Paper Box Machines. (*Perfectionnements aux machines à boîtes en papier.*)

William J. Keefe, Boston, Mass., U.S., 11th April, 1883; for 5 years.

Claim.—1st. In a machine for making hollow-articles from pulp, a vat valve to control the flow of pulp from the pulp-vat to the receiving-cylinder and means to operate it intermittently, combined with the pulp receiving cylinder, and the pulp controlling valve between them, to retain the pulp in the receiver and to permit its discharge therefrom intermittently into the forming cylinder. 2nd. In a machine for making boxes from pulp, the pulp receiving cylinder and forming cylinder, combined with an intermediate pulp controlling valve to permit the intermittent discharge of pulp from the receiving into the forming cylinder. 3rd. The pulp receiving and the forming cylinder, combined with the automatically operated pulp-controlling valve a, to permit the discharge of the pulp from the pulp receiving into the forming cylinder, and then to close the opening between the said parts. 4th. The vat-valve, in communication with a supply of pulp, means to move it intermittently, and the pulp-receiving cylinder combined with the forming cylinder, and pulp controlling valve therein, to permit the pulp in the receiving cylinder to be discharged intermittently into the forming cylinder. 5th. The pulp receiving cylinder, the forming cylinder, the pervious former adapted to be placed therein, and the pulp controlling valve between them combined with the valve and pipes to introduce compressed air into the forming cylinder, to quickly force the water of the pulp through the pervious former. 6th. The forming cylinder and pulp controlling valve to close it, and the pervious former, combined with the port o and inlet and outlet valve for the compressed air. 7th. In a machine for forming hollow articles from pulp, the vat valve and its connected adjustable slotted link and the pulp controlling valve, combined with the rocker shaft d and its arms h i, to operate the said valves at the proper time. 8th. The rocker shaft d and the adjustable pitman to operate the arms h i and e on the said shaft, and the link and lever g combined with the vat valve, the pulp controlling valve and the outlet and inlet valves for the compressed air. 9th. In a machine to produce hollow articles from pulp, the forming cylinder largest in diameter at its upper end and tapered to join with a cylindrical portion of smaller diameter combined with a pervious former of less diameter and length than the cylindrical portion of the forming cylinder from pulp, diameter. 10th. In a machine to produce hollow articles from pulp, a stationary or fixed forming cylinder with a table and means to rotate into the said cylinder of compressed air, and means to successively place the formers and lower portion of the said cylinder in proper contact and relation, to enable the formers to successively receive a deposit of pulp. 11th. The former provided with the hollow stem r, combined with the air pipe and valve to act as a stop for the same. 12th. The pervious former combined with the deflecting plate 76. 13th. The pervious former r having a hollow stem and outlet, combined with a hollow reciprocating plunger, to elevate the said former and make connection between its stem and the plunger, to enable water within the former to be delivered out through the plunger. 14th. The pervious former and means to elevate it within the space between the compressing dies, combined with the compressing dies and means to close them to express the water from, and compact the pulp at the sides of the former. 15th. In combination, the pervious former, reciprocating side compressing dies, and the box plunger and sleeve in which it moves. 16th. The box to contain the pressing dies, and the pressing dies combined with the adjustable gibs. 17th. The sleeve 23 extended upward above the box in which the pressing dies move, and the pressing dies and toggle levers combined with the collar and its arms, to simultaneously move the said dies. 18th. The radially movable series of pressing dies, recessed at one side, combined with the toggle-levers and headed connecting rods